# Central Washington University 2018-2019 Undergraduate Catalog 

Central Washington University

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# CMD <br> Central <br> Washington <br> University 

## Welcome to Central Washington University

At Central Washington University, we like to say: "You belong here."


It is a simple but powerful message that I believe correctly expresses how we feel about our students at Central Washington University. It means that at Central, you will find professors who know your name and want you to succeed. It means we are a university where you are welcome to become the person you want to be. It means an affordable education from topnotch faculty who teach the subjects you want to know.

One of the best ways to succeed at Central is by getting involved in available co-curricular activities ranging from student sports clubs and student government to community organizations and research teams. Join a club, play a sport, or volunteer with a student organization. Getting involved enhances your Wildcat experience and provides lifelong benefits and friends.

I would be remiss if I failed to mention that Ellensburg, home of CWU's residential campus, is an amazing place. Located on the east side of the Cascades, we are minutes away from fantastic mountains, nature trails, the Yakima River, and a host of other outdoor recreational opportunities. The community offers plenty of choices for dining, shopping, and community events.

Of course, one of the advantages of choosing Central Washington University is that we offer a variety of ways for you to learn. Students at one of our eight university centers or facilities can earn course credit and degrees that meet their individual needs while allowing them to remain close to home.

Additionally, Central provides a host of online classes and certifications. In fact, when it comes to online learning, few universities can compare to CWU. Several of our programs, including psychology, professional and creative writing, and information technology and administrative management, have been named among the nation's top online programs, and last year a national college rating website named Central the best value online school in the state of Washington.

By enrolling at Central, you have taken an important step by becoming a member of the Wildcat family. We are diverse and inclusiveCWU was recently the only Washington state university given the prestigious Higher Education Excellence in Diversity (HEED) awardalong with being friendly and welcoming. At Central, you will find a nurturing environment with a strong foundation in the principles of respect, support, and acceptance.

One of the best parts of my job is getting to meet and know our students; so, when you see me around campus or in the community, please introduce yourself.

Welcome to Central-a place where you truly do belong!
Sincerely,
Katherine Frank
Provost and Vice President for Academic and Student Life

## Catalog Guidelines

The university catalog is prepared by Registrar Services and the Public Affairs teams.
This catalog and its contents shall not constitute a contract between Central Washington University and prospective or enrolled students.
The information contained in this catalog reflects the current policies and regulations of the university. However, the university reserves the right to make changes in its policies and regulations at any time. Accordingly, if policies or regulations of the university at any time conflict with information contained in the catalog, the policies and regulations will govern, unless expressly determined otherwise by the CWU Board of Trustees.

A file containing documents describing the university's accreditation and approval by accrediting agencies is maintained in the Office of the Provost and Associate Provost and may be viewed by any current or prospective student upon request.

## Central Washington University is an AA/EEO/Title IX Institution.

Central Washington University's policies and practices affirm and actively promote the rights of all individuals to equal opportunity in education and employment without regard to their race, color, religion, creed, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, genetic information, or status as protected veterans. CWU complies with all applicable federal, state, and local laws, regulations, and executive orders. Address inquires to the Manager, Equal Opportunity and Title IX Coordinator, Mitchell Hall, First Floor, Ellensburg, WA 98926-7425, 509-963-2206; farmer@cwu.edu, www.cwu.edu/hr/equalopportunity. Students with disabilities may request reasonable accommodation by contacting Disability Services: 509-963-2214; Hogue 126; DS@cwu.edu, www.cwu.edu/disability-support. Employees and visitors may request reasonable accommodation by contacting Human Resources; 509-963-1202; hr@cwu.edu.

Registrar Services
Bouillon Hall, room 140
Central Washington University
400 East University Way
Ellensburg, Washington 98926-7465
509-963-3001
www.cwu.edu/registrar

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## Information Directory

## ONLINE ELECTRONIC CATALOG

www.cwu.edu/registrar/catalogs
The Online Electronic Catalog (OEC) is the university's official compilation for all curriculum. The OEC serves as the basis for major, minor, and program requirements for the academic year. For current policy and curriculum requirements, refer to the CWU online catalog.

This catalog provides a general guideline of courses offered by the university. The classes and programs described herein are implemented at the sole discretion of the college and are subject to change at any time without notice. Information contained on classes and programs are illustrative only and are not intended to create any contractual obligation or covenant with the university.

## LIMITATION OF LIABILITY

The university's total liability for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to the university for those classes or programs. In no event shall the university be liable for any special, indirect, incidental, or consequential damages, including but not limited to, loss of earnings or profits.

## INFORMATION DIRECTORY

Academic Advising: Professional Advising (declared majors, University Centers, Transfer Student Outreach), BOUL 205 (509) 963-3423
Academic Advising: First Year and Exploratory (for undecided students), Hertz 107 963-2722
Associated Students (ASCWU), Student Union and Recreation Center, 2nd Floor, room 236 963-1693
Career Services, Bouillon Hall, room 206 963-1921
Cashiers Office, Barge Hall, room 104 963-2224
Central Switchboard 963-1111
Catering Services, Tunstall Hall 963-1302
Conference Program, Munson Hall, Vantage room 963-1141
Continuing Education Office, 421 Main Street 963-1712
Disability Services, Hogue Hall, room 126 963-2214
Financial Aid, Bouillon Hall, room 232 963-1611
Graduate Studies and Research, Barge Hall, room 214 963-3101
International Studies and Programs, International Center 963-3612
James E. Brooks Library 963-1021
Office of Admissions, Hebeler Hall, room 108 963-1211
President's Office, Barge Hall, room 314 963-2111
Provost, Barge Hall, room 302 963-1400
Registrar Services, Bouillon Hall, room 140 963-3001
Student Employment

- I-9 and W'4, Mitchell Hall, first floor 963-1202
- Regular Student Employment (non-work study)(Human Resources), Mitchell Hall, first floor 963-1202
- Work Study (Student Financial Services/Financial Aid), Barge Hall, room 115 963-1611

Student Financial Services, Barge Hall, room 104 963-3546
Student Counseling Clinic, corner of 11th and Poplar, near Meisner Hall 963-1391
Student Medical Clinic, corner of 11th and Poplar, near Meisner Hall 963-1881
Student Success, Bouillon Hall, room 204 963-1515
Transcript Line 963-3047
University Housing and New Student Programs, Button Hall, 2nd Floor 963-1831
University Parking Services, Public Safety Building, 1211 N. Wildcat Way 963-2667
University Police Services, Public Safety Building, 1211 N. Wildcat Way 963-2959
Veterans Center, Bouillon Hall, room 206 963-3028

## AVAILABILITY OF SAFETY AWARENESS INFORMATION

University Police and Parking Services is responsible for reporting crime statistics in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Central's annual security report is available at www.cwu.edu/police/sites/cts.cwu.edu.police/files/documents/2016-asr.pdf. It contains information regarding crime prevention programs, the law enforcement authority of the University police, policies concerning the reporting of crime, crime statistics for the most recent threeyear period and other information about security that is required by law. A paper copy of the information is also available upon request by writing to: Central Washington University, University Police and Parking Services, 400 East University Way, Ellensburg, WA 989267527.

## Quarterly Calendars FALL 2018 UNIVERSITY ACADEMIC CALENDAR

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change.
If you have any questions, contact Registrar Services at 509-963-3001.
REGISTRATION AND CLASSES

| April 23 | Registration Assignment | Log into MyCWU to view enrollment appointment for web registration |
| :--- | :--- | :--- |
| April 23 | Schedule Goes Live | View in MyCWU |
| April 23 | Advising Begins | FALL 2018 advising |
| May 7-June 22 | Registration | For continuing students (During the assigned enrollment appointment) |
| August 1 | OPEN ENROLLMENT | Students may add/drop classes until change of schedule period ends. |
| September 5 | Leave of Absence | Students not attending FALL quarter must submit request |
| September 17 | Faculty Development Day | Before classes start |
| September 19 | CLASSES BEGIN | First day of classes for FALL |
| September 25 | Change of Schedule Period Ends | Add/Drop classes-Drops completed prior to this date or by the close of <br> business on this date will not appear on transcripts or have tuition <br> assessed. |
| September 25 | TUITION AND FEES DUE | Check with the Cashiers Office or view your statement online for <br> amount due. Student has 100 percent tuition liability if classes are <br> not dropped by this date. |
| September 25 | Audit and Credit/No Credit | Deadline to declare audit and credit/no credit |
| Sept 22-Oct 1 <br> until midnight | CWU Payment Plan - Open <br> Enrollment Period | Students may split their quarter charges in three easy payments <br> instead of one. A \$50 enrollment fee applies. |
| Sept.26-Oct.2 | \$25 Late Registration Fee | Instructor signature required to enroll |

## WITHDRAWAL DEADLINES

| Oct. 18 | Deadline for 50 percent refund with <br> complete withdrawal |
| :---: | :--- |
| Nov. 2 | Uncontested withdrawal period deadline |
| Nov. 30 | Hardship withdrawal petition deadline |
| Nov. 30 | Complete university withdrawal |

## GRADUATION DEADLINES

June 29
Sept. 19-25
Sept. 28
Nov. 26

Deadline to apply for baccalaureate degree for FALL 2018
Master's degree final folder check for FALL needs to be requested during first week of classes Deadline to apply for baccalaureate degree for WINTER Complete the final "Turnitin" check. All forms submitted and fees paid for FALL graduation for Thesis Option Students

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change. If you have any questions, contact Registrar Services at 509-963-3001.

REGISTRATION AND CLASSES

| October 22 |  | Registration Assignment | Log into MyCWU to view enrollment appointment for web registration |  |
| :---: | :---: | :---: | :---: | :---: |
| October 22 |  | Schedule Goes Live | View in MyCWU |  |
| October 22 |  | Advising Begins | WINTER advising |  |
| Nov. 5- Nov. 30 |  | Registration | For continuing students (During the assigned enrollment appointment) |  |
| December 10 |  | OPEN ENROLLMENT | Students may add/drop classes until change of schedule period ends. |  |
| December 20 |  | Leave of Absence | Students not attending WINTER quarter must submit request |  |
| January 3 |  | CLASSES BEGIN | First day of classes for WINTER |  |
| January 9 |  | Change of Schedule Period Ends | Add/Drop classes-Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed. |  |
| January 9 |  | TUITION AND FEES DUE | Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date. |  |
| January 9 |  | Audit and Credit/No Credit | Deadline to declare audit and credit/no credit |  |
| Jan. 6-Jan. 15 until midnight |  | CWU Payment Plan Open Enrollment Period | Students may split their quarter charges in three easy payments instead of one. A $\$ 50$ enrollment fee applies. |  |
| January 10-16 |  | \$25 Late Registration Fee | Instructor signature required to enroll |  |
| January 21 |  | Martin Luther King Jr. Holiday | No classes/administrative offices closed |  |
| January 16 |  | \$50 Fee - Unpaid Tuition and Fees | A \$50 late fee will be assessed on unpaid tuition-and-coursefee balances. Student has 100 percent tuition liability. |  |
| Jan. 17-Feb. 14 |  | \$50 Late Registration Fee | Instructor and Department Chair signatures required to enroll |  |
| February 1 |  | \$100 Fee -Unpaid Tuition and Fees | A $\$ 100$ late fee will be assessed on unpaid tuition-and-coursefee balances. Student has 100 percent tuition liability. |  |
| Feb. 11-Mar. 8 |  | Registration for SPRING | See SPRING 2019 Calendar |  |
| Feb. 15-Mar. 8 |  | \$75 Late Registration Fee | Instructor and Department Chair signatures required to enroll |  |
| February 18 |  | Presidents Day | No classes/administrative offices closed |  |
| March 8 |  | Course Challenge Form Deadline | Deadline to submit course challenge forms to Registrar Services |  |
| March 8 |  | Classes End | Last day of class instruction |  |
| March 11 |  | Study Day | Study Day |  |
| March 12-15 |  | FINAL EXAMS | See exam schedule |  |
| March 15 |  | End of Quarter | End of Quarter (last day of finals) |  |
| March 19 |  | Grades Due | 10:00 p.m. deadline for instructors to submit grades via MyCWU |  |
| 50 |  | Instructional Days per Quarter | Includes final exams and study days |  |
| WITHDRAWAL DEADLINES |  |  | GRADUATION DEADLINES |  |
| Feb. 1 | Deadline for 50 percent refund with complete withdrawal |  | Sept. 28 | Deadline to apply for baccalaureate degree for WINTER |
| Feb. 15 | Uncontested withdrawal period deadline |  | Jan. 3-9 | Master's degree final folder check for WINTER needs to be requested during first week of classes |
| March 8 | Hardship withdrawal petition deadline |  | Jan. 11 | Deadline to apply for baccalaureate degree for SPRING |
| March 8 | Complete university withdrawal |  | March 1 | Complete the final "Turnitin" check. All forms submitted and fees paid for WINTER graduation for Thesis Option Students |
|  |  |  | March 15 | Complete all master's degree requirements for WINTER graduation |

# SPRING 2019 UNIVERSITY ACADEMIC CALENDAR 

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change. If you have any questions, contact Registrar Services at 509-963-3001.

## REGISTRATION AND CLASSES

| January 28 | Registration Assignment | Log into MyCWU to view enrollment appointment for web registration |
| :---: | :---: | :---: |
| January 28 | Schedule Goes Live | View in MyCWU |
| January 28 | Advising Begins | SPRING advising |
| Feb. 11-Mar. 8 | Registration | For continuing students (During the assigned enrollment appointment) |
| March 12 | Leave of Absence | Students not attending SPRING quarter must submit request |
| March 18 | OPEN ENROLLMENT | Students may add/drop classes until change of schedule period ends. |
| March 26 | CLASSES BEGIN | First day of classes for SPRING |
| April 1 | Change of Schedule Period Ends | Add/Drop classes-Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed. |
| April 1 | TUITION AND FEES DUE | Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date. |
| April 1 | Audit and Credit/No Credit | Deadline to declare audit and credit/no credit |
| Mar. 29-Apr. 5 until midnight | CWU Payment Plan - Open Enrollment Period | Students may split their quarter charges in three easy payments instead of one. A \$50 enrollment fee applies. |
| April 2-8 | \$25 Late Registration Fee | Instructor signature required to enroll |
| April 8 | \$50 Fee - Unpaid Tuition and Fees | A \$50 late fee will be assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability. |
| April 9-May 6 | \$50 Late Registration Fee | Instructor and Department Chair signatures required to enroll |
| April 24 | \$100 Fee -Unpaid Tuition and Fees | A \$100 late fee will be assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability. |
| April 29-June 19 | Registration for SUMMER | See SUMMER Calendar |
| May 6- June 21 | Registration for FALL | See FALL 2019 Calendar |
| May 7-31 | \$75 Late Registration Fee | Instructor and Department Chair signatures required to enroll |
| May 15-16 | Source Days | Instructional days - Research projects |
| May 27 | Memorial Day | No classes/administrative offices closed |
| May 31 | Course Challenge Form Deadline | Deadline to submit course challenge forms to Registrar Services |
| May 31 | Classes End | Last day of class instruction |
| June 3 | Study Day | Study Day |
| June 4-7 | FINAL EXAMS | See exam schedule |
| June 7 | End of Quarter | End of Quarter (last day of finals) |
| June 8 | COMMENCEMENT | Commencement Ceremonies - Ellensburg |
| June 9 | COMMENCEMENT | Commencement Ceremonies - Kent |
| June 11 | Grades Due | 10:00 p.m. deadline for instructors to submit grades via MyCWU |
| 53 | Instructional Days per Quarter | Includes final exams and study days |

WITHDRAWAL DEADLINES

| April 24 | Deadline for 50 percent refund with <br> complete withdrawal | Jan. 11 | Deadline to apply for baccalaureate degree for SPRING |
| :--- | :--- | :--- | :--- |
| May 10 | Uncontested withdrawal period <br> deadline | Mar. 26- <br> Apr. 1 | Master's degree final folder check for SPRING needs <br> to be requested during first week of classes |
| May 31 | Hardship withdrawal petition <br> deadline | April 5 | Deadline to apply for baccalaureate degree <br> for SUMMER |
| May 31 | Complete university withdrawal | May 28 | Complete the final "Turnitin" check. All forms <br> submitted and fees paid for SPRING graduation for <br> Thesis Option Students |
|  | June 7 | Complete all master's degree requirements for <br> SPRING graduation |  |

# SUMMER SESSION 2019 UNIVERSITY ACADEMIC CALENDAR 

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change.
If you have any questions, contact Registrar Services at 509-963-3001,
REGISTRATION AND CLASSES

| April 15 | Schedule Goes Live | View in MyCWU |
| :--- | :--- | :--- |
| April 15 | Advising Begins | SUMMER advising |
| April 29-June 19 | Registration | Summer Session |
| June 17 | CLASSES BEGIN | Classes begin for six-week and full session |
| June 19 | Change of Schedule Period Ends | Add/Drop classes-Drops completed prior to this date or by the close of <br> business on this date will not appear on transcripts or have tuition <br> assessed. |
| June 19 | TUITION AND FEES DUE | Check with the Cashiers Office or view your statement online <br> for amount due. Student has 100 percent tuition liability if <br> classes are not dropped by this date. |
| June 16-24 <br> until midnight | CWU Payment Plan - Open <br> Enrollment Period | Students may split their quarter charges in three easy payments <br> instead of one. A \$50 enrollment fee applies. |
| June 20-26 | \$25 Late Registration Fee Six-week <br> Session | Instructor signature required to enroll |
| June 20-26 | \$25 Late Registration Fee Full Session | Instructor signature required to enroll |
| June 27-July 12 | \$50 Late Registration Fee Six-week <br> Session | Instructor and Department Chair signatures required to enroll <br> June 27-July 25 |
| \$50 Late Registration Fee Full Session | Instructor and Department Chair signatures required to enroll |  |
| June 28 | \$50 Fee - Unpaid Tuition and Fees | \$50 fee will be assessed on unpaid tuition and course fee <br> balances. Student has 100 percent tuition liability. |
| July 4 | Independence Day Holiday | No classes/administrative offices closed |
| July 15-26 | \$75 Late Registration Fee Six-week <br> Session | Instructor and Department Chair signatures required to enroll <br> July 16 |
| \$100 Fee -Unpaid Tuition and Fees | \$100 fee assessed on unpaid tuition and course fee balances. <br> Student has 100 percent tuition liability. |  |
| July 26-Aug. 16 | \$75 Late Registration Fee Full Session | Instructor and Department Chair signatures required to enroll |
| July 26 | Six-week Session Classes End | Last day of class instruction for six-week session |
| July 30 | Grades Due Six-week Session | 10:00 p.m. deadline for instructors to submit grades via MyCWU <br> August 16 |
| Full Session Classes End | Last day of class instruction for full session |  |
| Gust 20 | Grades Due Full Session | $10: 00$ p.m. deadline for instructors to submit grades via MyCWU |

## WITHDRAWAL DEADLINES

## GRADUATION DEADLINES

| July 12 | Deadline for 50 percent refund with <br> complete withdrawal | April 5 | Deadline to apply for baccalaureate degree for <br> SUMMER |
| :--- | :--- | :--- | :--- |
| July 12 | Uncontested withdrawal period deadline | June 17-21 | Master's degree final folder check for SUMMER <br> needs to be requested during first week of classes |
| July 19 | Hardship withdrawal petition deadline <br> for six-week session | June 28 | Deadline to apply for baccalaureate <br> degree for FALL 2019 |
| July 19 | Complete university withdrawal for six- <br> week session | Aug. 2 | Complete the final "Turnitin" check. All forms <br> submitted and fees paid for SUMMER graduation <br> for Thesis Option Students |
| Aug. 9 | Hardship withdrawal petition deadline <br> for full session | Aug. 16 | Complete all master's degree requirements for <br> SUMMER graduation |
| Aug. 9 | Complete university withdrawal for <br> full session |  |  |

# History, Mission, Vision and Core Values 

## History

Since 1891, Central Washington University has prepared its students to excel in the workplace and as effective members of society. Established by the Washington State Legislature in 1891 as Washington Normal School, CWU has consistently redefined and advanced higher education in the state of Washington and focused on making it accessible to all.

Our success is based on creating a diverse, inclusive, and welcoming environment, having award-winning professors, being affordable, and providing the programs our students want. Our focus on these values has helped make CWU the fastest growing public university in the state of Washington.

## Mission

Prepare students for enlightened, responsible, and productive lives; to produce research, scholarship, and creative expression in the public interest; and to serve as a resource to the region and the state through effective stewardship of university resources.

## Vision

Central Washington University (CWU) is a dynamic, creative, and inclusive environment that promotes engaged learning and scholarship. It is distinguished regionally for the rigor of its curriculum and scholarship, for the excellence of its pedagogy, for the vibrancy of its cocurricular and residential experiences, for its commitment to providing access to higher education, and for its efforts to advance the social and economic health of the region. It is typified by an entrepreneurial spirit that establishes it as a national leader in higher education. It has a strong commitment to engaged learning and scholarship, internationalism, sustainability, inclusiveness, and life-long learning.

## Core Values

Central Washington University exists to advance society through the essential activities of teaching, discovery, and service. While no one of these core elements is meaningful in isolation from the others, CWU finds it necessary to prioritize its efforts in relation to its mission, vision, values, goals, and resources. In order to maximize the value of each of the elements of its mission, CWU emphasizes the integration of scholarship, teaching, and public service.

As a public comprehensive university, CWU strives to create an engaging learning environment and therefore places its highest priority on teaching, learning, and student success. The faculty is comprised of scholar-teachers working in the interests of their students, their disciplines, and the region. CWU encourages individualized programs of student success and promotes undergraduate and graduate student-faculty partnerships that are actively engaged in discovery, creative expression, and engaged learning.

As a community dedicated to the principles of academic freedom, CWU must be an environment that promotes reasoned, civil, and enlightened discourse and creative expression without fear of reprisal, ridicule, or exclusion. CWU's educational environment must empower each person with the freedom to explore, to evaluate, and to learn.

CWU must also strive to serve its region by addressing pressing economic and social issues. As a comprehensive university, CWU must use its intellectual capacity not only to contribute to disciplinary literatures, but also to assist area business, social, and government leaders in strengthening and diversifying the area's economic base, to help create a sustainable natural environment, and to address critical social issues.

CWU is also a place where people gather to live and to work. It must therefore be a place that enables people to grow and to prosper. In keeping with the academic values of shared governance and reasoned dialogue, the university must be open, transparent, and empowering.

It follows, then, that CWU is committed to the following shared values:

- Student success: CWU believes that student success is best achieved by providing supportive learning and living environments that encourage intellectual inquiry, exploration, and application. CWU believes that learning is best achieved in small classroom or group settings with ample opportunities for individualized instruction, mentoring, advising, and programming.
- Access: CWU believes in providing educational opportunities to as many qualified students as possible. CWU believes that restrictions of place, time, and finances can be overcome through the effective use of partnership with community colleges and by effective and efficient use of learning, communication, and social technologies.
- Engagement: CWU believes that learning, research, and creative expression are enhanced by engagement with external partners. CWU believes that as a publicly-funded institution, it has a responsibility to help address the social and economic challenges faced by our communities.
- Inclusiveness: CWU believes that diversity of peoples, cultures, and ideas is essential to learning, discovery, and creative expression. CWU believes that all faculty, staff, and students must be and must feel physically, professionally, and emotionally safe in order to fully engage in and benefit from the university experience.
- Shared governance: CWU believes that shared governance is most effective when information systems and decision-making processes are both robust and transparent. CWU believes that communication channels should be open and two-way and that faculty, staff, and students should be empowered to participate in the governance systems.
- Facilities: CWU believes that state-of-the-art, safe, and attractive facilities enhance the working and learning environments of faculty, staff, and students. CWU also believes that state-of-the-art technologies provide leverage for the efforts of faculty, staff, and students.
- Safety: CWU believes it has a responsibility to providing a working and learning environment that is both physically and emotionally safe.


## EQUAL OPPORTUNITY POLICIES

CWU's policies and practices affirm and actively promote the rights of all individuals to equal opportunity in education and employment without regard to their race, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, genetic information, or status as protected veterans. The university administers an affirmative action program for employment purposes and complies with applicable federal, state, and local laws, regulations, and executive orders. Policy statements on affirmative action, gender equity, and sexual harassment, as well as discrimination complaint and resolution policy and procedures available at www.cwu.edu/resources-reports.

The person responsible for institutional compliance with most federal and state laws and institutional policies dealing with discrimination is Gail Farmer, Manager, Equal Opportunity and Affirmative Action, 509-963-2206 or farmer@cwu.edu. She also serves as one of the university's Title IX coordinators. Please contact Pam Wilson, Administrator, Disability Services for any questions or concerns related to disability-related laws and institutional policies, 509-963-2018 or Pam.Wilson@cwu.edu. Human Resources is located in Mitchell Hall, First Floor.

## ACCREDITATION AND MEMBERSHIP

The university is accredited by the Northwest Commission on Colleges and Universities (NWCCU). Some programs have been accredited by specialized accrediting and certification associations, including:

- ABET - Engineering Technology Accreditation Commission
- Academy of Nutrition and Dietetics and The Accreditation Council for Education in Nutrition and Dietetics
- American Chemical Society
- American Council for Construction Education
- Association of Advance Collegiate Schools of Business
- Committee on Accreditation of Educational Programs for the EMS - Professions
- Council for Accreditation of Counseling and Related Education Programs
- Foundry Education Foundation
- Professional Educator Standards Board
- National Association of School Psychologists
- National Association of Schools of Music
- Technology Accreditation Commission of the Accreditation Board of Engineering and Technology


## Student Success

The Office of the Dean for Student Success oversees the areas of Undergraduate Advising, Student Development and Student Living as well as serves in an advising capacity to the Associated Students of Central Washington University. The Dean and staff coordinate the work of committees dealing with student personnel policies, student discipline, and student academic grievances.

## Student Development and Achievement

## Undergraduate Advising

## Academic Advising - First Year and Exploratory

Students who are undecided on a major and their exploring options work with Academic Advisors in the First Year and Exploratory Office, located in Hertz 107 (phone: 509.963.2722). This office also administers the Student Transitions and Academic Resources (STAR) program. STAR is an intensive academic support program that assists academically at-risk students in completing transitions into, and through, and out of the university.

## Academic Advising - Professional Advising

Located in Bouillon 205, Professional Advising provides academic advising to students who have decided or declared a major. This office also supports students in online majors, students attending a university center, and incoming transfer students. (Phone: 509.963.3423)
Wildcat Academic Success Center (Athletic Advising)
The Wildcat Academic Success Center (WASC) provides academic advising for first year and undeclared student athletes at Central Washington University. The WASC also provides academic support for student athletes by offering study hall, tutoring services, and the Commitment to Higher Academic Milestones and Personal Success (CHAMPS) program.
For more information about academic support services for student athletes, call 509-963-3084 or visit
www.wildcatsports.com

## Student Development

## Academic Achievement Programs: Student Support Services (SSS)

SSS is a federally funded TRIO program under the auspices of the U.S. Department of Education. SSS provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students toward the successful completion of their post-secondary education. Students who are first generation, low income, or who have a disability are eligible for the program on a space-available basis. The program may also provide grant aid to current, active, SSS participants who are receiving Federal Pell Grants and are of freshman or sophomore status. The goal of SSS is to increase the college retention and graduation rates of its participants and facilitate the process of transition from one level of higher education to the next. SSS is funded 80 percent by a federal grant from the U.S. Department of Education and 20 percent by CWU.

## College Assistance Migrant Program (CAMP)

The College Assistance Migrant Program (CAMP) provides
financial and academic support services to freshman students from migrant and seasonal farm-working backgrounds. It is funded by a grant from the Department of Education, Office of Migrant Education. CAMP is designed to help students succeed as they begin their college careers and through their freshman year. CAMP students receive a variety of services including scholarships, stipends, tutoring, study skills training, mentoring, career planning services, and cultural enrichment opportunities.
To qualify for the CAMP program, the student must meet the following requirements:

- Be a U.S. citizen, permanent resident, or eligible noncitizen
- Have freshman standing (fewer than 44 quarter credits)
- Meet criteria to determine migrant or seasonal farmworker status:
- Parent (or student, if independent) has worked for at least 75 days in the last 24 months in farm-work such as production of crops, dairy products, poultry, livestock, tree harvesting, or fish farming. Farm-work must be primary form of employment and be performed on a temporary or seasonal basis
- OR student has participated in the Chapter 1 Migrant Education Program
- OR student or parent qualifies for the WIA167 program
To apply for the CAMP Program, call 509-963-1729 or download and/or submit an application at www.cwu.edu/camp.


## High School Equivalency Program (HEP)

The High School Equivalency Program is a federally funded program that provides service to migrant and seasonal farm working populations. The program conducts educational awareness, community outreach and recruitment throughout central Washington. The program recruits 110 program participants annually. All participants receive comprehensive GED preparation. This preparation consists of providing GED instruction, test preparation and tutoring services. In addition, students are provided with career development services and educational and/or employment placement assistance.

## Career Services

Career Services is a free comprehensive career counseling and resource center designed to engage students as active participants in their career development from freshman year through alumni status. The central purpose of Career Services is to help students prepare for academic and career success. The office strives to serve the needs of individuals through these career-related classes, programs and events.

UNIV 103: For those who are not certain which major or career path is right for them, Career Services offers a two-credit course, called Career Exploration, on the Ellensburg campus each quarter. One-on-one counseling can achieve similar results over time if a student cannot take the class.

UNIV 301: This two-credit career management class helps students prepare for the transition from the classroom to the workplace. The focus of the course is on job search skills in pursuit of fulfilling employment. A separate section for international students is available.

Job Search Preparation: Career workshops are organized throughout the year to help students prepare for work or graduate school. To prepare for internship and career opportunities in the US and abroad, career counselors provide information on careers, developing strong resumes, CV's and cover letters, practicing effective interviewing skills, learning successful internship and career job search strategies, including how to negotiate salary.

Career Counseling: Career counselors help students make major and career decisions through online assessments and determining skills, strengths, values, and interests. Counselors also assist students to apply for graduate school and postbachelor studies. Alumni experiencing career transitions are also welcome to meet with a career counselor. Counselors are available from 8 a.m. to 5 p.m. in Bouillon 206 in Ellensburg, and at CWU-Lynnwood and CWU-Des Moines Centers.
Appointments are also available by phone, Skype or e-mail.
Wildcat Career Network: The WCN database contains career information, job and internship opportunities, and enables students to sign up for on-campus interviews and career events. Students can access their account through their MyCWU account. Alumni can create an account through our website. There is no fee for this service.

Cooperative Education/Internships: Cooperative Education offers assistance to students wanting to earn credits for professional work experience while they are in school. Many departments require an internship as part of the major; others accept a limited number of hours toward graduation. An internship is an opportunity to combine career, social, and personal growth with the educational process. The student works with their department faculty and the Career Services Co-op coordinator to prepare for the process that leads to a successful, credit-bearing academic/work experience.

Career Fairs and Events: The department organizes career fairs and events throughout the year as an opportunity to network with employers, learn dining etiquette, interview with businesses, and meet with faculty for major selection, review graduate school opportunities, and more. On-campus interviews and information sessions take place on the main campus and the centers, between students and a variety of businesses, government agencies, non-profit organizations, school districts, and the military. For further information: www.cwu.edu/career.

## Educational Opportunity Center

Deciding where to go to college, figuring out how to pay for it, and completing all the necessary forms is complicated. The Educational Opportunity Center (EOC) is set up to help students gather the necessary information to make good decisions about their future educational plans and think clearly through the available options. EOC is available, principally, to help lowincome adults who are the first in their family to attend college, work through the admission process. For further information, call 509-574-6895 or e-mail eoc_program@cwu.edu.

## GEAR UP

GEAR UP prepares ALL students to pursue and succeed in some form of post-secondary education and seeks to: increase parent involvement, professional development for teachers, community involvement, and collaboration with school staff.

GEAR UP serves approximately 5,300 students from 11 school districts in central Washington. Participating students engage in university campus visits, college preparatory programs, academic support programs, and STEM related activities.

## KCWU-FM (88.1 the 'Burg)

KCWU-FM is CWU's student run, nationally awardwinning Radio Station. Operating out of a state-of-the-art living media laboratory, the student broadcasters master speaking and presentation skills while performing as music DJs, newscasters, sportscasters, talk show hosts, production and imaging talent and brand, marketing and event specialists. The multi-platform approach of on-air, on-line and in-person serves the CWU student body and community, and fosters a culture of professionalism, diversity and inclusion.

## Learning Support Services (Learning Commons)

Learning Support Services encourages student success by offering a wide variety of instructional resources and peer tutoring services. In Ellensburg, Learning Support Services can be found in the Academic and Research Commons (ARC) on the first floor of the Brooks Library. Five key program areas are associated with Learning Support Services: 1) The Math Center provides academic support in quantitative skills for students in courses across the curriculum. Drop-in and scheduled tutoring sessions are available, 2) At the Writing Center, trained peer tutors work with students of all levels and disciplines, guiding them toward effective written communication. Tutors meet one-on-one with students by appointment or drop- 3) Peer Assisted Labs (PALs) provide free, out-of-class study sessions led by CWU undergraduate students who have already taken and excelled in the course. PAL sessions are open to all CWU students enrolled in the PAL-targeted class; 4) The University Center and Online Tutoring program offers tutoring in mathematics and writing to students who do not attend classes in Ellensburg; and, 5) Students enrolled in developmental coursework (Math 100A, 100B, 100C, and English 100T) are taught by Learning Support Services faculty and regularly access tutoring services. Ellensburg students can contact Learning Support Services by phone ( 509.963 .1270 ) or via email (tutor@cwu.edu). University Center and online students may contact Learning Support Services by phone (206.439.3800 x3827) or via e-mail (onlinetutoring@cwu.edu).

## Veteran's Center

CWU's Veterans Center opened in 2009 to aid service members and their families entering college. The center is committed to the academic success of its students by helping with the transition into student life and laying the groundwork for a satisfying career. Services include assisting with veteran education benefits applications, certifying enrollment, and locating additional resources veterans and their family members may need. Find more information at www.cwu.edu/veterans or stop by our office located in Bouillon Hall, 206.

## Office of Student Rights and Responsibilities, Wellness, \& Health Promotion

The Office of Student Rights and Responsibilities has responsibility for assisting students understanding university policies and procedures that support them. In addition, the Office of Student Rights and Responsibilities is responsible for holding students accountable to the student conduct code and taking reports that include behaviors of concern by other members of the University Community. This office is located in Bouillon 205. The Office of Student Rights and Responsibilities also houses University Case Managers who assist students with
referrals within the CWU campus and the Ellensburg Community. In addition, our office serves all CWU locations.

## Wildcat Wellness Center

The Wildcat Wellness Center is located in SURC 139. Services and programs delivered through the center include: alcohol/drug education, prevention and referrals for assessment and treatment, ASTP (Alcohol Skills Training Program) classes, web-based alcohol and drug curriculum, peer education programs, sexual assault prevention and response coordination, and programs that promote positive health behavior and risk reduction behaviors.
The University has a comprehensive alcohol education and prevention program. Parental notification is one part of CWU's comprehensive sanctioning procedure for underage alcohol and marijuana use. CWU supports all local, state and federal laws pertaining to controlled substances and as such, cannabis is not allowed on any CWU premise.

## Violence Prevention and Response Coordinator

Students impacted by sexual violence or other forms of harassment may call 509-963-3233 and leave a confidential message and/or drop by the Wellness Center at SURC 139. Services include confidential, referral, advocacy, information and crisis response for victims, survivors, and significant others. Those experiencing an emergency are still encouraged to contact 9-1-1.

There is also a peer education program sponsored by the Wellness Center and advised by the Wellness Center's health educator. It can be reached by phoning 509-963-3213. For additional information please visit www.cwu.edu/wellness.

## Student Living

## ASCWU - Student Government

The Associated Students of Central Washington University (ASCWU) is the student government board elected by the CWU student body to serve as policy-development officers. Executive responsibility is vested in the seven-member ASCWU-Student Government with the Executive Director of Student Involvement serving as the primary advisor. As a vehicle from which students may share different views, the ASCWU is an integral part of the shared governance of CWU. The ASCWU Student Government recognizes and approves student clubs, student organizations, and student appointments to committees in order to serve and represent a variety of student needs and interest areas.
To learn more about ASCWU Student Government, please check out our contact info found below:
Office location: SURC 236
Phone: 509-963-1693
Website: http://www.cwu.edu/ascwu/

## Campus Activities

Campus Activities offers a variety of events including music, comedy, speakers, concerts, performances, movies, and special events such as Homecoming, Family Weekend, Boo Central, Ware Fair, CWUp Late and Student Appreciation Day. They also offer a variety of educational and development opportunities through practicum and internship experiences and advisement of the university's clubs and organizations.

## Center for Leadership and Community Engagement

The (CLCE), with endowments by David Wain Coon and Don and Verna Duncan, serves CWU students and our community with leadership development programs and educational service opportunities which promote positive social change and servant
leadership. Through inclusive and intentional high-impact practices, students are provided opportunities to enhance and develop individual competencies to better understand self, others, citizenship and service.
Signature programs include:

- Experience Leadership Project (ELP) - A three-day retreat in the Cascade Mountains designed for firstyear students, where they learn how to get involved at CWU, enhance their leadership skills and build a network of support.
- Cross-Cultural Leadership Program (CCLP) Each Fall, students come together for a year-long exploration of leadership through culture, discovering how each culture varies and how to make a positive difference in the lives of others.
- Leadership Conference - An annual conference where students gain knowledge and insight from national and local leaders.
- Earth Week Programs including Yakima River Clean Up - A series of events dedicated to making a difference by bettering the environment and educating all who affect it.
- Holiday Extravaganza - Every Fall, CWU student volunteers gather to create a winter wonderland of holiday crafts and activities for K-5 children and their families.
- Chavez-King Leadership Institute for Social Change - An Institute that seeks to foster a generation of active and engaged student leaders committed to civic responsibility, diversity, and social justice in local and global contexts.
- Martin Luther King, Jr. Celebration and Tribute A weeklong celebration that consists of various civil rights activities with K-5 children, documentary and speech screenings, and a presentation addressing past and current social justice efforts.
- Leadership Transcript - Use this to supplement employment, graduate school and scholarship applications, and document your college years.
The CLCE recognizes that every student has leadership capacity and will have ample opportunities to demonstrate leadership throughout their lifetime. Through various programs, workshops and resources, CWU students are equipped to make a positive impact within their communities. From short-term volunteering to intense capstone service programs, individuals are encouraged to use their disciple-specific knowledge in order to address community-based social, political and environmental economic justice issues.
To learn more about the CLCE, please check out our contact info found below:
Office location: SURC 256
Phone: 509-963-1850
E-mail: clce@cwu.edu
Website: www.cwu.edu/leadership-engage.


## Disability Services and Central Access

Disability Services is committed to supporting and sustaining an inclusive campus that recognizes disability as diversity. We are dedicated to ensuring individuals with disabilities have an equal opportunity to fully participate in the educational process and university experience.

Disability Services facilitates full participation, universal access, and reasonable accommodation to meet the unique needs of each person. The office provides this support by individualizing the accommodation process and facilitating creative approaches to eliminating barriers.
Central Access creates accessible materials for individuals with print related disabilities. Our team provides quality work for students and staff at Central Washington University as well as many institutions and schools across the country.
Central Access also provides meaningful opportunities for student employees to learn about the production of accessible materials and grow professionally while serving the community.
Disability Services is located in Hogue 126 and can be reached at DS@cwu.edu or by phone at (509)963-2214. Employees seeking accommodations can contact Human Resources at (509)963-1202.

## Early Childhood Learning Center

The Early Childhood Learning Center (ECLC) provides early learning to the campus community serving children aged onemonth to eight-years of age. There are two sites; 1900 Brooklane Village, Suite 100, serves children aged two years to eight years of age; Michaelsen Hall, room 109, serves children aged one month to 28 months. The program consists of early learning activities especially designed for young children; including music, language, physical activities, stories, science and math experiences, games, puzzles, blocks, and dramatic play. Nutritious meals and snacks are served throughout the day. Operating hours during the academic year are 7:30 a.m. to 5:30 p.m., Monday through Friday. Call 509-963-1744 or e-mail eclc@cwu.edu for more information.

## The Publicity Center

The Publicity Center offers a full slate of creative services to promote campus events, programs and departments while providing real world experience to student employees through hands on skill development, professional mentoring and portfolio development. The Publicity Center, located in the Student Union building, is also home to Hype, a multi-platform communication approach to spreading the word about campus events and opportunities for students to get involved outside the classroom.

## Recreation

Recreation is committed to offering recreation programs that provide personal and professional development for a diverse university community. Our nationally recognized facilities and services support the university mission by promoting an inclusive campus environment. Our programs contribute to the wholeness and wellness of our patrons while providing cocurricular activities that complement other avenues of learning and aid individuals in achieving balance and well roundedness. Through excellent customer service and care for the individual, Recreation seeks to provide a sense of belonging that enhances retention for students, faculty, and staff. Programs include intramural sports, collegiate sport clubs, personal training, group fitness, outdoor pursuits and rentals, climbing wall, challenge course, summer kid's camp, recreation center operations, and a myriad of special events including films, lectures, interactive programs, and instructional courses.

- Intramural Sports, also known as IM Sports, offers a variety of leagues per quarter. Sports range from the traditional, such as basketball, flag football, softball, and soccer to the non-traditional such as dodgeball, archery tag, and electronic gaming tournaments. Sports are offered in different levels of competition as
well as different divisions such as coed, open, or women's. Students, staff, and faculty are all eligible to participate in IM Sports.
- The CWU Collegiate Sport Clubs Program is designed to provide opportunities for CWU Students with mutual interests in a sporting activity, to pursue their interests more in depth. Each club is formed and administered by their student membership. Student leadership, interest, and participation are essential elements of a successful sport club. The Collegiate Sport Club Program at CWU is designed to be a learning experience for members through their involvement in leadership, club administration, financial management, and event planning. The leadership traits developed through these experiences are not only intended to benefit the students during their time on campus, but long after they leave the university. For a current list of clubs please visit www.cwu.edu/sport-clubs.
- Personal training packages are available to all recreation center members. For a nominal charge, a personal trainer will develop a challenging workout routine specifically designed to meet an individual's fitness goals.
- Group fitness classes are available to all recreation center members for a very small fee. From spinning to ballet, intense abdominal workouts to yoga, there's something for everyone.
- Outdoor Pursuits and Rentals provides low-cost guided trips and equipment rentals to support students' outdoor recreation desires and educational needs.
- The 50 -foot climbing wall in the Recreation Center offers bouldering and roped climbing, and certification courses in top-rope belay and lead climbing.
- Challenge Course programming offers the opportunity to participate in team building activities to accomplish individual and group goals on both low-ropes elements and a state-of-the-art high challenge course for low-cost fee. Our staff will provide everything your group needs to successfully participate in the challenge course experience, including equipment and instruction, as well as a pre-event meeting to determine your group's specific needs.
- Camp C-Woo provides a quality day camp atmosphere for Ellensburg-area youth entering grades 1-5. Our primary function is to offer a safe environment where kids can have fun, make new friends, create unforgettable memories, and spend their summer with positive role models. The camp primarily operates during the summer months but has a variety of programs during the school year. For more information about Camp C-Woo please visit www.cwu.edu/rec/camp-c-woo.


## Student Involvement

The Department of Student Involvement is dedicated to enriching students' experiences outside the classroom by providing social, cultural, recreational, and educational programs, services, and apprenticeships. Student Involvement is comprised of the functional areas including Campus Activities, ASCWU-Student Government, KCWU 88.1 the 'Burg Radio Station, and Westside Student Life. Student Involvement representatives serve on committees for campus events such as

Discover! New Student Orientation, Wildcat Welcome Weekend, and Homecoming. Student Involvement employs 30plus students each year in paraprofessional positions, offers internships and practicum experiences, and provides a range of services for university departments, student organizations, and the community.
To learn more about Student Involvement, please check out our contact info found below:
Office location: SURC 263
Phone: 509-963-1691
Website: http://www.cwu.edu/student-involvement/home

## Student Medical and Counseling Clinic

Students registered for 6 or more credits pay a health and counseling fee ( 5 or more credits for summer session) and are thereby eligible for services. The Clinic bills insurance for the initial medical appointment. If you do not have insurance, your student account will be billed $\$ 50$. There is no charge for all follow-up office visits. There will be charges for any ancillary services provided (e.g., labs, x-rays, etc.). More information on appointments can be found at: www.cwu.edu/medical-counseling/your-first-appointment. All counseling services are provided free of charge.

Services are offered at the Medical and Counseling Clinic building (southeast corner of the campus). The Clinic hours are 8 a.m. to 5 p.m. Monday through Friday. Summer hours are 8 a.m. to noon and 1 p.m. to $3 \mathrm{p} . \mathrm{m}$. when classes are in session. The Clinic is closed on weekends, holidays and during academic breaks. When the Clinic is closed, emergency medical services are available at Kittitas Valley Community Healthcare. The cost of hospital care is at the student's expense. Medical appointments are available through the patient portal at the Clinic's website or can be made by phone (509-963-1881), Monday through Friday. It is imperative that you log onto the student portal and complete the required forms prior to your first medical appointment.

The medical staff provides routine and urgent-care services, including care for medical problems such as illnesses, injuries, and infections (e.g., colds, flu, and sexually transmitted infections). It offers customary primary care services including routine physical examinations, sports physicals, travel medicine, women's health services (e.g., pap smears, pregnancy testing, long term contraceptives and reproductive counseling), and diagnostic laboratory tests/X-rays. In keeping with the educational mission of the university, emphasis is placed on education regarding wellness, prevention and treatment of illnesses.

The Counseling Clinic (509-963-1391) operates on the basis of a brief treatment model. Counseling services include individual, couple, and group counseling. Common student issues include transitional/adjustment concerns, relationship difficulties, eating disorders, stress, anxiety, and/or depression. Group counseling opportunities routinely include coping with anxiety, therapeutic lifestyle change for depression, bipolar support, personal growth, and relationship difficulties. Special programs for campus groups are available upon request (e.g., education and outreach). Counseling services are private and confidential. A copy of the clinic's privacy policy is available at www.cwu.edu/medical-counseling.

## Testing Services

CWU Testing Services is an NCTA certified Testing Center.

Testing Services provides support to CWU students, faculty, and staff, as well as the central Washington community.
Testing Services also works closely with Disability Services, Faculty, and students in providing student accommodation for testing.
CWU Testing Services partners with the majority of the major nationwide testing companies (including ETS, PearsonVUE, and PSI) and administers a multitude of exams.

For more information, including a list of exams and dates, contact Testing Services in room 125 of Bouillon Hall, call 509-963-1847, or visit www.cwu.edu/testing.

Exams offered include, but are not limited to:
CWU Placement Tests
College Level Examination Program (CLEP) tests
ETS Testing:
${ }^{\circ}$ GRE
${ }^{\circ}$ PRAXIS
${ }^{\circ}$ ASE
${ }^{\circ}$ MCAT
${ }^{\circ}$ TOEFL
${ }^{\circ}$ TOIEC
Castle Testing:
${ }^{\circ}$ ACE certifications
Kryterion Testing:
${ }^{\circ}$ Certified Counselor/Adviser Exam
PearsonVUE Testing:
${ }^{\circ}$ WEST
${ }^{\circ}$ NES
${ }^{\circ}$ Microsoft
${ }^{\circ}$ CISCO
${ }^{\circ}$ CompTIA
${ }^{\circ}$ GED
PSI Testing:
${ }^{\circ}$ FAA
Various other testing:
$\circ$ Proctored Exams for other institutions
${ }^{\circ}$ Spanish Placement Test
${ }^{\circ}$ TEAS V
${ }^{\circ}$ MPRE
${ }^{\circ}$ LSAT
${ }^{\circ}$ CHES/MCHES
${ }^{\circ}$ NCE
${ }^{\circ}$ GRE Subject

## The Student Union

The Student Union serves as a centralized hub of student activity on campus. The state-of-the-art fusion facility is combined with a Recreation Center and houses the university bookstore, multiple dining options, banking, multiple student programming and service areas, and the student government. The welcoming, inclusive environment provides meeting, lounging and studying spaces in addition to a vast array of activities presented daily that contribute to students' sense of belonging. Seamless, quality services through Student Union Operations include centralized scheduling, event coordination, and technical support of university facilities for all university and non-university events. Student employees gain hands-on experience and take pride in their part in making the Student Union a vibrant hub for student life.

## Westside Student Life Programs

Our mission is to engage the Westside student body and develop a sense of campus community through diverse activities and events, student clubs, student leadership training and development, special graduation events, collaborating with community college partners, and supporting our non-traditional student populations. In addition, we provide support for students with disabilities seeking accommodations.
To learn more about Westside Student Life Programs, please check out our contact info found below:
Adam Haizlip, Associate Director of Westside Student Life E-mail: Adam.Haizlip@cwu.edu

## University Housing and New Student Programs

## NEW STUDENT PROGRAMS (Orientation)

At Central Washington University, we place special emphasis on each student's transition to the CWU campus. Through research and our own experience, we know that the foundations built through these intentional experiences are key to a student's success. Once you are admitted to CWU, New Student Programs will pick up where the Admissions Office leaves off for both first year and transfer students. Making the commitment to spend your college career at CWU is a major decision. With this in mind, it only makes sense that the CWU community welcomes you by providing a comprehensive guide as you make this transition. We have designed a four-phase orientation program to aid you as you acclimate to life at Central. Your participation in orientation is required, please see our website at cwu.edu/orientation for additional details. This is certain to increase your success at CWU. That's why we have created an orientation program with a wide array of options and opportunities to suit your needs.
Phase I of New Student Orientation is Wildcat Day: Rolling Out the Crimson Carpet, the first component of Central's four-tiered new student orientation program. It is scheduled for your choice of Saturday, April 7, 2018 or Saturday, April 14, 2018. This program is designed to introduce students who are accepted for the fall 2018 quarter and your parents/guests; provide you with information about academic departments and majors; and provide an opportunity for you to ask any questions you may have about Central. This event regularly attracts more than 1,000 incoming students and guests each weekend. Attendance is strongly recommended.
As a part of the event we offer Todos Somos Familia for Spanish speaking families. More information, including a schedule of events, will be posted early in the new year at cwu.edu/orientation. WELCOME WILDCATS!
Phase II of New Student Orientation is a two-day program for first year students and parents/family held in June and July. The program allows you to meet with academic advisors who will help you register for classes, participate in social events with other incoming students, and attend valuable programs that feature campus resources and services. Programs include academic requirements and expectations, housing services, dining services, and financial aid. Parent/family-only sessions are offered to assist with the transition to the university. Faculty and administrators are available throughout the program to assist with parent and student needs. Students with fewer than 40 transferable college credits, and/or who are Running Start students, are required to attend Orientation. Students unable to attend one of the dates in June and July need to contact us by email at discover@cwu.edu as soon as possible. Class registration will take place after the final July orientation session.

Transfer students have an option of a one day orientation session in June or July. Transfer students are expected to attend.
For further questions, call New Student Programs at 509-9632735 or e-mail discover@cwu.edu or check out our website at cwu.edu/orientation.
Phase III of New Student Orientation is Wildcat Welcome Weekend (W3). It picks up in the fall where Orientation left off. W3 is a first-year-focused program that begins on move-in day (Sept. 14). Students will participate in a weekend filled with many fun and informative activities and sessions. Attendance is required to receive credit for University 101.
Phase IV of New Student Orientation is the First-Six-Weeks Programming. It is intentionally designed to help students adjust during the critical first six weeks of their first year at CWU. Attendance at first-six-weeks programming is required as part of a student's University 101 class.
Orientation dates and registration information is available online at cwu.edu/orientation.

## University Housing

University Housing provides well-maintained housing facilities, with an emphasis on student development, as part of the university's academic environment, and works to augment classroom instruction with a learning environment that is supportive of students' educational goals, personal and interpersonal growth, and cultural awareness.
CWU is a residential university with most Ellensburg students living on or near campus. The residence halls and apartments can house 3,800 students. CWU's residence halls offer students a variety of quality living experiences and options.

The residences are within a few minutes' walk of any classroom, library, or dining hall, which offers considerable convenience and flexibility to students. Residence hall and apartment staff provides crisis intervention and educational, cultural, social, and community services programs, as well as coordinating behavioral problem-solving interventions in cooperation with the Dean of Student Success.

The residence halls offer a diverse selection of communities and environments. The residence halls, which house between 35 and 476 occupants, offer programs and environments to enhance classroom experiences. Furniture, basic cable service, wireless internet, utilities, and coin-operated laundry facilities are also provided. Many halls have their own pool table, piano, or pingpong table. All residence halls and apartments are smoke-free.

Living and Learning Communities (LLCs) are available for students interested in the following areas: Education, Science Talent Expansion Program, Aviation, Music, Casa Latina, Business, Students for the Dream, International House, Leadership House, ROTC, Social Science, and William O. Douglas Honors College. Students may request a residence hall offering a living-learning enrichment opportunity. Hall staff and faculty from these areas of interest collaborate to provide residents with educational and social activities that integrate their field of study, enhancing their residence hall experience.

Since college is a total learning experience, Central requires all freshmen/first year students who are under 20 years-of-age to live in the residence halls for one academic year. Running Start students under 20 years-of-age, regardless of class standing, must also fulfill the live-in requirement. Students requesting an
exception to the policy must apply through University Housing and New Student Programs.

CWU also maintains 450 apartments (studio, one, two or three bedrooms) designed for single students and those with families. The apartment complexes offer activities for residents that focus on their needs and priorities. Complexes feature programs and facilities that support students emotionally, socially and academically. These programs might include wellness, selfdefense, cultural awareness, lifestyle planning, career planning, and recreation. Many activities for children and families are presented, such as holiday events, child safety awareness programs, domestic violence prevention programs, and career planning. In addition, we have a living learning community for students in the sciences called Solvers.

At different times of the year, demands for apartments may exceed availability. For this reason, waiting lists are provided. To be eligible for apartment housing, a student must be currently enrolled in and must maintain at least 7 credit hours of coursework.

Students who are required to live in residence halls are not eligible to live in the apartments. Each apartment resident is required to sign a lease, which provides for renting an apartment on a month-to-month basis. Written notice must be given at least 30 days prior to vacating an apartment. Pets are not allowed in any area of CWU housing. Central Washington University abides by all state and federal laws pertaining to service animals in on campus housing.

## CWU Life

## Dining Services

All students living in CWU residence halls are required to select a meal plan. There are five to choose from, and all are set up as a prepaid dining debit account, which allows for purchase of meals or snacks at any campus dining location. Students living off-campus may also purchase a meal plan for the convenience of dining and buying beverages and snacks on campus.

Dining Services' staff is dedicated to your dining satisfaction. Its mission is to provide exceptional food service and customer service to the campus community. This is evident in fresh, appetizing, and nutritionally balanced menus along with the hospitality offered at each of its distinctly different dining locations on campus. These include:

- Central Market Place, located in the SURC, offers a la carte service in six restaurants: Taglianno's Pizza and Pasta, Totally Tossed Salads, Lion's Rock Broiler, El Gato Loco, Pan Asia, and Wrap and Roll Deli Bar
- Holmes Dining Room, located in the SURC, offers an all-you-can-eat service for brunch/lunch and dinner
- North Village Café, located in Green Hall on the north side of campus, offers a la carte service for meals and snacks throughout the day
- 1891 Bistro, located in Tunstall Hall on the south side of campus, featuring local fare, D and M's Coffee and espresso, Winegar's ice cream, ABC Donuts, EZPZ, grab and go, good food FAST - Student made On
campus, and CWU Catering Pastry Case and soups of the day.
You may also use your meal plan at any of CWU Dining Services' espresso bars or convenience stores:
- Cat Trax East Espresso and Smoothie Bar, Cat Trax West Espresso, and Cat's Convenience Store in the SURC
- Coach's Coffee House in the Wendel Hill Hall
- NVC Espresso Bar and NVC Store in the North Village Café and Store
Dining services are available on campus for breakfast, lunch, dinner, late-night meal service on weekdays, and for brunch and dinner on weekends.

If you have questions about the dining options available at CWU Dining Services, call 509-963-1591, or contact us via its web page at www.cwu.edu/dining. Dining also has a Facebook page and can be found on Twitter.

## Nutritious Foundations

Dining Services offers nutritious menu selections, based on the U.S. Department of Agriculture's food pyramid, to support your healthy lifestyle. You're encouraged to adopt a diet rich in balance, variety, and moderation by exploring the nutrition foundation that Dining Services provides in all dining arenas.

## Special Events

Several special dining events are offered quarterly to enrich your dining experience. Some of these events include the Octoberfest, a holiday season buffet, a seafood buffet extravaganza, theme and ethnic dinners, Cinco De Mayo, the Student Appreciation BBQ , and the commencement luncheon.

## Employment Opportunities

Dining Services is the largest employer on campus, hiring between 250-350 students annually for part-time work. Consider joining the team where you will meet new friends and earn money.
Dining Services is a member of the National Association of College and University Food Services, and an active supporter of the academic mission of the university through participation in many out-of-classroom events and activities held throughout campus.

## Honor Societies

Central Washington University maintains memberships in several national honor society chapters. Here is a list of those memberships. Please see the appropriate department for more information about these honor societies.

Alpha Epsilon Rho: This is the national honor society for broadcasting. Founded in 1943 for the purpose of emphasizing superior scholarship and creative participation in telecommunication production and activity, it prepares its members for roles as responsible telecommunicators. Membership in Alpha Epsilon Rho is open to undergraduate and graduate students who are making electronic media studies one of their major academic interests and who meet high standards of scholarship. Please see the Department of Communication for more information.

Alpha Eta Rho: (AHP) This International Professional Collegiate Aviation fraternity acts as a bridge between aviation colleges and the aviation industry. AHP was established in 1929
by Earl W. Hill, an aviation instructor at the University of Southern California and, with help from students and faculty, was founded on April 10, 1929. It is the oldest professional aviation fraternity in history. AHP members serve the aviation industry in fields such as: Aviation Captains, NASA Engineers, Flight Attendants, Aircraft Mechanics, Aerospace Engineers, Corporate Pilots, and many more. Please see the Department of Aviation for more information.

Alpha Kappa Delta: This is an international sociology honor society. Founded in 1920 and an accredited member of the Association of College Honor Societies, Alpha Kappa Delta is a non-secret, democratic, international society of scholars dedicated to the philosophy of Athropon Katamannthanein Diakonesin or "to investigate humanity for the purpose of service." AKD seeks to acknowledge and promote excellence in scholarship in the study of sociology, the research of social problems, and such other social and intellectual activities that will lead to the improvement of the human condition. Please see the Department of Sociology for more information.

Alpha Phi Sigma: This is the nationally recognized honor society for students in the criminal justice sciences. The society recognizes academic excellence by undergraduates as well as graduate students of criminal justice. The honor society is open to undergraduate students who have a declared law and justice major or minor, have maintained a minimum GPA of 3.2 on a 4.0 scale in their cumulative and criminal justice class or rank in the top 35 percent of their classes, and have completed a minimum of four courses within the law and justice curriculum. Graduate students must have a minimum GPA of 3.4 on a 4.0 scale or rank in the upper 25 percent of their class, and have completed a minimum of four courses within the law and justice curriculum. Please see the Department of Law and Justice for more information.

Alpha Sigma Lambda: This national honor society, established in 1946, provides the opportunity to recognize the special achievements of adult students. Alpha Sigma Lambda acknowledges adult students who accomplish academic excellence while facing competing interests of family, work, and community. Members must have earned a minimum GPA of 3.5 on a 4.0 scale. The CWU chapter of ASL is Psi Delta Omega and is advised by the Center for Student Empowerment. Invitations to join Psi Delta Omega are sent out at the beginning of each academic year, and induction ceremonies are held both at the Ellensburg campus and at one of the Puget Sound- area centers. Please see the Center of Diversity and Social Justice for more information www.cwu.edu/diversity/alpha-sigma-lambda.

Beta Alpha Psi: This is a not-for-profit honor and service organization for accounting, finance and information systems students at AACSB-or EQUIS-accredited universities. Founded in 1919, the CWU chapter was installed in 2013. It provides opportunities for development of communication, leadership and professional skills, participation in community service, encouragement of ethical, social and public responsibility and interaction among students, faculty and professionals. Beta Alpha Psi requires its members to maintain at least a 3.0 GPA. It is recognized and respected by the business community as a premier collegiate organization. Please see the College of Business for more information.

Beta Beta Beta: TriBeta is a society for students, particularly undergraduates, dedicated to improving the understanding and
appreciation of biological study and extending boundaries of human knowledge through scientific research. Since its founding in 1922, more than 200,000 persons have been accepted into lifetime membership, and more than 553 chapters have been established throughout the United States and Puerto Rico. Please see the Department of Biological Sciences for more information.

Eta Sigma Gamma: Since its inception in 1967, Eta Sigma Gamma, the National Health Education Honorary, has had a rich history of contributions to the profession of health education and health promotion. It was through the commitment of a group of dedicated professors and students at Ball State University that the first chapter of the honorary was established. Today, there are over 80 chapters representing thousands of students in colleges and universities around the United States. Please see the Department of Health Sciences for more information.

Eta Zeta: This is the Department of Geological Science's chapter in the Earth Sciences national honor society, Sigma Gamma Epsilon. The purpose of the honor society is to recognize exceptional scholarship and professionalism among our geological science majors, and to foster student scholastic, scientific, and professional advancement. To become a member, a student must have completed at least 15 quarter hours in Earth Sciences courses, have a minimum 3.0 GPA in Earth Sciences courses, and have a minimum GPA of 2.67 in all university courses. Please see the Department of Geological Sciences for more information.

Gamma Theta Upsilon: Gamma Theta Upsilon is an international honor society in geography. Gamma Theta Upsilon was founded in 1928 and became a national organization in 1931. Members of Gamma Theta Upsilon have met academic requirements and share a background and interest in geography. Gamma Theta Upsilon chapter activities support geography knowledge and awareness. New members are inducted annually. Please see the Department of Geography for more information.

Kappa Delta Pi: The honor society in education, Kappa Delta Pi , encourages high professional, intellectual, and personal standards, and recognizes and honors outstanding achievement in the study of education. Membership is open to undergraduate students, graduate students, and faculty by invitation. New members are inducted quarterly. Please see the College of Education and Professional Studies for more information www.cwu.edu/education-professional-studies/funds-andendowments.

Lambda Alpha: The Lambda Alpha National Collegiate Honors Society for Anthropology was founded on March 15, 1968 at Wichita State University in Kansas. To date there are over 200 chapters nationwide. Lambda Alpha (derived from the Greek Logos Anthropou, meaning "the Study of Humans") was established for the purpose of encouraging and stimulating scholarship and research among students, faculty and others engaged in the study of anthropology. Lambda Alpha provides scholarships, research and publication opportunities to student members (undergraduate and graduate). Please see the Department of Anthropology and Museum Studies for more information.

Lambda Pi Eta: This is the national honorary society for undergraduates in communication. As an accredited member of the Association of College Honor Societies (ACHS), Lambda Pi Eta (LPH) has an active chapter at CWU's Department of

Communication. LPH represents what Aristotle described in The Rhetoric as three ingredients of persuasion: logos (lambda) meaning logic, pathos (pi) relating to emotion and ethos (eta) defined as character credibility and ethics. Lambda Pi Eta recognizes, fosters, and rewards outstanding scholastic achievement while stimulating interest in the communication discipline. Please see the Department of Communication for more information.

Pi Sigma Alpha: (Mu Lambda chapter) This is CWU's honor society for students of political science. This is a national honorary, first organized in 1920, with more than 740 chapters throughout the country. Membership is based upon scholastic achievement and a genuine interest in the understanding of politics and political issues, as evidenced by performance in several political science courses. Please see the Department of Political Science for more information.

Phi Alpha Theta: This is a nationally recognized honor society founded in March 1921 at the University of Arkansas, and today it numbers over 900 chapters, representing 500,000 members. Central's Tau Iota chapter was chartered in 1972. Membership is composed of undergraduate and graduate students and professors who have been elected upon the basis of excellence in the study and writing of history. The society's objective is the promotion of the study of history by the encouragement of research, good teaching, publication, and scholarly interaction among historians. Please see the Department of History for more information.

Phi Kappa Phi: The national honor society of Phi Kappa Phi recognizes and encourages superior scholarship in all academic disciplines. Membership is open to undergraduate students, graduate students, and faculty members by invitation, with election based on superior scholarship. New members are inducted each spring. Please see the Department of Accounting for more information.

Phi Sigma Tau: This is the international honor society in philosophy. Its purpose is to recognize and encourage excellence in philosophic scholarship among students and faculty. It publishes philosophy articles from undergraduate students in its journal Dialogue. Central's local chapter (Washington Alpha) meets periodically to discuss philosophic issues. Membership is based on scholastic attainments. Please see the Department of Philosophy and Religious Studies for more information.

Psi Chi: This is the international honor society in psychology, founded in 1929 for the purpose of encouraging, stimulating, and maintaining scholarship in, and advancing the science of, psychology. Membership is open to graduates and undergraduates who are making the study of psychology one of their major interests and who meet the minimum qualifications. Psi Chi is an affiliate of the American Psychological Association and a member of the Association of College Honor Societies. Please see the Department of Psychology for more information.

Salute: This is a national academic honor society recognizing student veterans and military personnel who have demonstrated outstanding performance in the academic setting. One of the primary goals of SALUTE is to acknowledge and recognize members who have shown courage, strength, leadership, excellence, and perseverance in their military endeavors and now are showing that same commitment to their academic careers. Please see the Veteran's Center for more information.

Sigma Lambda Chi: The fundamental purpose of Sigma Lambda Chi is to provide recognition to outstanding students in construction curricula. Sigma Lambda Chi is the society that offers students the opportunity to be recognized locally and internationally for their academic accomplishments as a construction major. Please see the Department of Engineering Technologies, Safety and Construction for more information.

Sigma Pi Sigma: This is the national physics honor society. It was founded in 1921 and now has over 500 chapters nationwide. It is a member of the Association of College Honor Societies and is affiliated with the American Institute of Physics and with the American Association for the Advancement of Science. Membership is open to undergraduate and graduate students and faculty members. Students elected to membership must maintain high standards of general scholarship and outstanding achievement in physics. Besides providing an incentive for all physics students to rise to excellence, the society also encourages physics interest and science literacy in the general public. Please see the Department of Physics for more information.

Theta Alpha Kappa: The only honor society devoted to religious studies. Theta Alpha Kappa granted Central Washington University a charter in 2007. Its overall purpose is to provide local and national recognition to students with high scholarship and an academic interest in the field of religious studies. In addition to promoting student interest in research and advanced study in the field, it provides opportunities for the publication of student research papers of merit through the Journal of Theta Alpha Kappa, encourages a professional spirit and friendship among those who have demonstrated an aptitude for excellence within the field, and popularizes interest in religious studies among the general collegiate and local community. Please see the Department of Philosophy and Religious Studies for more information.

## Wildcat Shop

The Wildcat Shop has everything you need right here on campus and its selling prices on textbooks are lower than 96 percent of all college stores in the country. It also has a strong textbook rental program for students. It carries:

- Textbooks (new, used, rental, and ebook)
- General reading and reference books
- Computer software (special prices for students)
- Computer hardware (special student prices)
- Electronics
- Clothing and gifts
- School and art supplies
- Greeting cards
- Dorm supplies
- Health and beauty aids
- Stamps
- Snack foods and more

It also provides laminating, binding, copying (color or black and white), mat board cutting, DVD and CD recording, Apple computer repair, and fax services.

Special order any book, computer, or electronic product, or supply, at no additional cost. For your convenience the Wildcat Shop buys back textbooks throughout the quarter. Contact the Wildcat Shop at 509-963-1311, or at www.wildcatshop.net.

## University Services

## Archival Services

The Archives at Central Washington University was established in 2004 to act as the repository for official and unofficial records that document the history of the university. The Archives also serve as a regional repository to house, preserve, and promote the history of central Washington. It is located on the fourth floor of the James E. Brooks Library on the Ellensburg campus.

The primary objectives of the Archives is to collect, organize, describe, preserve, and make available university records and regional collections of permanent historical value. It also aims to support research, teaching, and public awareness of the rich heritage of central Washington and the university.

The Archives contain records, photographs, and artifacts produced by CWU or its predecessors: Washington State Normal School at Ellensburg (1891-1937); Central Washington College of Education (1937-1961); and Central Washington State College (1961-1977). The collection contains documents published by the university as well as materials produced by university administrators, faculty, staff, students, and alumni. The collection includes administrative reports, department and committee records, student publications, photographs, printed records, and the correspondence of former presidents, deans, and other university officials.

The regional manuscript collection, which is part of the Archives, consists of historically significant 19th- and 20thcentury personal papers, business and organizational records, photograph collections, and other materials produced in central Washington by individuals, businesses, and organizations that reside, or have resided, in the region. One-of-kind unpublished works from the counties of Benton, Chelan, Douglas, Grant, Kittitas, Klickitat, Okanogan, and Yakima are represented in the collection. The collection includes materials relevant to the history and cultural development of central Washington.

## Center for Diversity and Social Justice

The Center for Spatial Information and Research (CSIR) encourages, supports, and coordinates research projects for students and faculty using hardware and software technologies that gather and analyze "spatial" information to solve problems in the social sciences, natural sciences, and business.
Geographic Information Systems (GIS), high-precision Global Positioning System (GPS), ground-penetrating radar, precision conventional laser surveying, and satellite image processing are some of the spatial technologies used by CWU faculty and students. Typical GIS applications include projects in resource geography, archaeology, field biology, geology, and planning. CSIR also relies on the Department of Geography's GIS laboratory, where a variety of undergraduate and graduate GIS courses are taught, and numerous large and small research projects are conducted using state-of-the-art computing systems.

CSIR encourages creative, interdisciplinary uses of spatial technology, and actively works with the private and government sectors to identify problems to which CWU personnel and equipment can provide effective solutions. CSIR's home page is at www.cwu.edu/spatial-information.

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## Central Washington Archaeological Survey

The Central Washington Archaeological Survey (CWAS) is a research and public service office that is part of the Department of Anthropology. CWAS conducts archaeological investigations in the central counties of the state and promotes public involvement in the identification and protection of regional archaeological resources. CWAS involves faculty and students in research projects funded through external grants and contracts. CWAS cooperates with state and federal agencies, Native American tribes and nations, professional archaeologists throughout the state, and state and local archaeological societies in the study and preservation of central Washington's archaeological resources.

## Disability Services

Disability Services (DS), and Human Resources (HR), in partnership with the university community, are dedicated to creating an inclusive campus that celebrates diversity and provides individuals with disabilities an equal opportunity to fully participate in and benefit from all aspects of the employment and educational environments. Utilizing documentation of disability and information obtained in consultation with the student or employee, DS staff assesses the effects of a student's disability on his/her ability to access the educational process. HR staff assesses the effects an employee's disability has on his/her ability to perform the essential functions of his/her job. Based on this assessment, DS/HR staff identifies reasonable accommodations designed to ensure these individuals equal access to all facets of the University. Students or employees wishing to request disability accommodations are responsible for contacting DS/HR.

Examples of accommodations available to CWU students and/or employees with disabilities include, but are not limited to, textbooks and academic/employment materials in accessible formats (large print, Braille, electronic text, PC-read audio), alternative examination procedures, sign language interpreters, speech-to-text transcription, permission to audio-record lectures, note-taking assistance, early registration, priority snow removal routes, special classroom or workplace furniture, access technology and temporary disability parking permits. DS also
serves as a resource for student, faculty, staff, and the community regarding disability issues.

Students with disabilities may request reasonable accommodation by contacting DS: 509-963-2214; Hogue 126; DS@cwu.edu, www.cwu.edu/disability-support. Employees and visitors may request reasonable accommodation by contacting HR; 509-963-1202; Mitchell Hall, First Floor; hr@cwu.edu.

## Diversity and Equity Center (DEC)

Located in the heart of the Student Union and Recreation Center (SURC 250) the DEC aspires to promote equity, inclusion and social justice through programs, outreach and partnerships. Within co-curricular and extracurricular initiatives, the DEC advocates and nurtures a campus community who recognize and celebrate diversity, facilitates inclusion and creative expression. Our signature, thematic, and outreach programs include Heritage months, Identity development and Ally workshops, and many more. In all cases students and staff work together to define programming and outreach efforts. DEC provides resources to students, faculty, and staff on a variety of topics related to underrepresented populations and the intersectionality of identities. Students are welcome in the DEC to hang out and to participate in the activities. Come check out the DEC and see how we can support you!

## Family Resource Center

The Family Resource Center (FRC) is part of the Family and Child Life program and Department of Family and Consumer Sciences at Central Washington University. The mission of the FRC is to provide programming and resources to support families, coordinate family-related research, and provide civic engagement opportunities for students. Information about current FRC events and resources for families can be found online at www.cwu.edu/family/, and the FRC director can be reached at 509-963-2758.

## Geographic Information Systems Laboratory

The GIS laboratory contains up-to-date computer hardware and various software suites employed in the analysis of spatial data such as maps, aerial photos, satellite imagery, and digital terrain models. The laboratory provides a teaching and research facility for faculty and students from a variety of fields, including anthropology, archaeology, biology, geography, geology, landuse planning, resource management, and sociology. In addition, the laboratory offers contract and consultation services to public and private agencies for GIS applications. Additional information can be found at www.cwu.edu/geography.

## Information Services

Information Services (IS) provides computer, communications, enterprise application and networking services to the Ellensburg campus and university centers located throughout the state. IS staff members work closely with all segments of the university to ensure that information technology is broadly developed, acquired, used, and available to all students, faculty, and staff. IS information is available on the web at www.cwu.edu/its and can be contacted at 509-963-2924. The CWU Service Desk (formerly ITS Help Desk) can be contacted at 509-963-2001.

Students and faculty have easy access to computers and software in 23 general-purpose and discipline-specific computer labs spread throughout academic buildings on campus. Every residence hall room is equipped with a network connection
providing Internet services for those students that bring computers to campus and residence halls have Wi-Fi service. Students, faculty, and staff who reside off campus can access CWU technology resources (i.e., Canvas, portal, e-mail, file services, etc.) via the Internet through my.cwu.edu.

Wi-Fi access to the CWU network and the Internet is available across the campus and via laptop checkout in the SURC and Brooks Library. Information on Wi-Fi at CWU is online at www.cwu.edu/its-helpdesk/connecting-cwu-wireless-network.

## James E. Brooks Library

The Brooks Library provides quality resources and innovative services to stimulate creativity, intellectual curiosity, and to facilitate lifelong learning and research within the communities we serve. The library's faculty and staff are engaged in the creation of collections that support the curriculum and the provision of access to those materials. More specifically, these activities include the collection and preservation of materials, user instruction and guidance, information retrieval, analysis and organization, global access to library and information resources, and collaboration with instructional faculty in developing programs, collections, and research.

Students and other library users have $24 / 7$ online access to electronic materials, as well as, 1.3 million books, films, government documents, maps, and audio recordings on site in the Brooks Library. Additionally, the library provides similar access to more than 28 million information items from the academic libraries of the Northwest that belong to the Orbis Cascade Alliance. Full-text electronic and/or paper subscriptions to over 15,000 periodicals and academic journals are available electronically or on site.

Library staff is available to provide personal service to students 100 hours per week. The Academic and Research Commons (ARC) on the first floor provides spaces for students, faculty and staff to work collaboratively to enhance teaching and learning The ARC combines the services of Learning Support Services tutoring, research librarians, Career Services and Information Services. Group study areas, a Family Study Space, and desktop computers are available to those who visit the main library in Ellensburg. Students at the Centers have access to library services and materials at the main library and libraries at the Des Moines and Lynnwood Centers. Academic support is also available through a toll-free phone number, e-mail, and 24/7 Ask-A-Librarian services. Internet connectivity for personal laptops is available on each floor of the Brooks Library and laptops are available for checkout by students. The libraries' staff, services, and collections support the educational efforts of students, foster intellectual, social and ethical development, and assist students in locating, using, and evaluating information to equip them for independent, lifelong learning.

## Multimodal Education Center

The Multimodal Education Center (MEC) embraces the vision that Technology Empowers Learning. We provide instructional and multimedia technologies, support, and training for all CWU students, faculty, and staff. Our goal is to create opportunities for exploration of emerging technologies, digital media, and innovative learning spaces. Through a variety of workshops, we can help you create multimedia projects, develop a 3D model for printing at the Center, learn a new technology skill, explore the uses of Virtual Reality, and more. We have laptops, video cameras, and projectors for checkout, both Apple and PC
computer labs, and an educational curriculum library. For more information, visit us in Black Hall, call 509-963-3293 or visit the website at www.cwu.edu/multimodal-education/.

## Student Employment

The university supports the employment of current students, recognizing the reciprocal benefits of their work. Employment of students provides them the opportunity to gain valuable work experience and assists them with financing their education. Student employees are a valuable source of labor and spirit for the university.

We work to ensure that each student enjoys his or her CWU work experience and that employers have the resources needed to employ, mentor, and support student employees. The role of Human Resources is to facilitate connections between students and employers so that students can fund their educational expenses, obtain valuable work experience, and build career portfolios through work experience and training opportunities created specifically for student employees.

Student Employment job opportunities are available for both on and off campus (including summer opportunities) at careers.cwu.edu. For additional information about Student Employment visit our website at www.cwu.edu/studentemployment. Contact us at 509-963-1202 or seo@cwu.edu or come see us in Human Resource, Mitchell Hall, First Floor.

## University Police and Parking Services

University Police and Parking Services (UPPS) provides service to the Ellensburg, WA campus of CWU. Commissioned and trained police officers provide service to the campus community 24 hours per day, 7 days a week. In addition, parking enforcement officers, professional support staff and student employees work diligently to meet our mission: "Work in partnership with our communities to create a safe and secure environment through education and enforcement."

UPPS works closely with neighboring law enforcement agencies. "Blue-light" emergency telephones are installed in or adjacent to many parking lots and walking paths throughout the campus. Each phone has an emergency button and a two-way speaker that directly connects to KITTCOM.

UPPS employs students in a program called Courtesy Assistance Team or CAT. CAT provides walking companions from campus buildings to parking lots or residence halls. CAT employees also check doors to buildings and walk through buildings that are open.

Throughout the school year we give 60-75 crime prevention programs and have been invited to present "active shooter response" to numerous classes. We routinely work with the student newspaper and radio station, as well as other media, to provide safety tips and timely warnings of criminal activity.

Central Transit provides transportation from campus to various locations in the city of Ellensburg.

## Our motto is "Integrity Service Excellent."

Emergency Phone: 911
Non-emergency: 509-925-8534
Business Phone: 509-963-2959
Fax: 509-963-2750

Monday through Friday, 8 a.m.-5 p.m.
Courtesy Assistance Team (CAT) 509-963-2950

## Veteran Center

CWU's Veterans Center opened in 2009 to aid service members and their families entering college. The center is committed to the academic success of its students by helping with the transition into student life and laying the groundwork for a satisfying career. Services include assisting with veteran education benefits applications, certifying enrollment, and locating additional resources veterans and their family members may need. Call 509-963-3028 or e-mail va@cwu.edu, find more information at www.cwu.edu/veterans. We are located in Bouillon Hall, 206.

## University Centers

Central Washington University has six campus and two instructional locations in addition to the residential campus in Ellensburg. The University Centers offer upper-division (300and $400-\mathrm{level}$ ) and graduate-level coursework leading to baccalaureate and master's degrees. The University Centers are designed for students who have completed their Direct Transfer Agreement (DTA) associate degree or most of their general education requirements. Day and evening classes are offered to accommodate the needs of time- and place-bound students. Visit us at www.cwu.edu/welcome/cwu-campus-locations.

For more information about the University Centers, contact Lauren Hibbs, Interim Executive Director of Extended Learning at (509)-963-1456 or Lauren.Hibbs@cwu.edu.

## UNIVERSITY CENTER POLICIES

## Admission

Students interested in entering a university center program may submit an application at www.cwu.edu/admissions.

## Registration

Continuing students follow the same procedures as noted in the registration part of this catalog. Students may register via MyCWU, phone, or in person during their assigned enrollment appointment. Non-matriculated students may register for classes on a space-available basis during open enrollment.

## Advising

General transfer advising and specific program advising is available by contacting your university center for an appointment. Final official transcripts must be received for articulation of all transfer courses.

## Tuition

See current tuition rates and fees or refer to the Registrar Services home page at www.cwu.edu/registrar. Continuing Education courses are offered on a self-support basis. The selfsupport tuition schedule is separate from full-time tuition and fees. Visit the Continuing Education web site at www.cwu.edu/ce/. Tuition and fees are subject to change.

## Student Services

Information for services that accommodate physical- and learning-disabled students, career placement, or counseling is available by contacting your specific university center.

## Financial Aid

Students attending a university center are eligible to apply for financial aid. You can apply online at www.fafsa.ed.gov. For more information about financial aid, visit
www.cwu.edu/financial-aid. All students must submit the Free Application for Federal Student Aid (FAFSA) to begin the process.

## Veterans

Information on veterans' benefits is available through the Veterans Center on the Ellensburg campus, by calling 509-9633028, or by emailing va@cwu.edu.

## Library

Access to library services is available to students and faculty at the university centers through the CWU Brooks Library, which is available by logging on to www.lib.cwu.edu/. Assistance in acquiring reference materials may also be obtained by calling 800-290-3327. On-site library resource centers are also located at CWU-Des Moines and CWU-Lynnwood.

## Textbooks

Textbooks may be purchased through the Wildcat Shop at cwubookstore.collegestoreonline.com. You may also inquire at your individual center for specific information.

## Final Exam Schedule

University Centers' final exam dates are different from the Ellensburg campus schedule. University Center instructors establish their own finals calendar. Therefore, University Center students should check with the instructor to verify the appropriate date and time or refer to the syllabus.

## Office Hours and Parking

Contact the University Center office regarding office hours as times may vary for each center. Parking permit questions can also be directed to your University Center office.

## CWU-Des Moines

At Highline Community College
Higher Education Center, Building 29
2400 South 240th Street
P. O. Box 13490

Des Moines, WA 98198
206-439-3800

## Degree Programs:

- BS Accounting
- BS Business Administration

Specializations in:
${ }^{\circ}$ Finance
${ }^{\circ}$ Leadership and Management
${ }^{\circ}$ Marketing Management
${ }^{\circ}$ Supply Chain Management

- BAEd Early Childhood Education/Elementary Education
- BAEd Early Childhood Education/Middle-Level Math
- BAEd Early Childhood Education/TESL
- BS Electronics Engineering Technology
- BAS Information Technology and Administrative

Management

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        Specializations in:
        * Administrative Management
        * Cybersecurity
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- BS Interdisciplinary Studies - Social Sciences
- BA Law and Justice
- BA Psychology
- MS Law and Justice


## Additional Certifications:

- Principal Certification
- Sports Business
- Supply Chain Management Certificate


## CWU-Sammamish

120 228th Ave NE
Sammamish, WA 98074
509-963-3690

- 100 and 200 level General education classes
- Continuing Education Programs
- Professional Development Programs


## CWU-Lynnwood

At Edmonds Community College
Snoqualmie Hall
20000 68th Avenue West
Lynnwood, WA 98036
425-640-1574

## Degree Programs:

- BA Law and Justice
- BAS Information Technology and Administrative

Management

- BAS Supply Chain Management
- BS Accounting
- BS Business Administration

Specializations in:
${ }^{\circ}$ Finance
${ }^{\circ}$ Leadership and Management
${ }^{\circ}$ Marketing Management
${ }^{\circ}$ Supply Chain Management

- BS Interdisciplinary Studies - Social Sciences


## Minors:

- Accounting
- Administrative Management
- Business Administration
- Cybersecurity
- Economics
- Finance
- Individual Studies
- Information Technology
- Law and Justice
- Supply Chain Management

Other:

- Supply Chain Management Certificate


## CWU-Joint Base Lewis McChord

Joint Base Lewis McChord
6242 Colorado Ave,
Joint Base Lewis-McChord, WA 98433
509-963-1210

## Degree Programs:

- BS Business Administration - Supply Chain Management
- BAS Supply Chain Management

Other:

- Supply Chain Management Certificate


## CWU-Moses Lake

At Big Bend Community College
Advanced Technology and Education Center
7662 Chanute Street, Room 1843
Moses Lake, WA 98837
509-793-2355
Degree Programs:

- BS Interdisciplinary Studies-Social Sciences


## CWU-Pierce County

At Pierce College, Ft. Steilacoom
Olympic 330
9401 Farwest Dr.
Lakewood, WA 98498
253-964-6636
Degree Programs:

- BS Business Administration - Supply Chain Management
- BS Business Administration - Leadership and Management
- BAS Supply Chain Management
- BAEd Elementary Education - Literacy Minor
- BS Interdisciplinary Studies- Social Sciences
- BAS Information Technology and Administrative Management

Specializations in:
${ }^{\circ}$ Administrative Management
${ }^{\circ}$ Cybersecurity
${ }^{\circ}$ Information Technology (Hybrid)

- BS Information Technology and Administrative Management Specializations in:
${ }^{\circ}$ Administrative Management
${ }^{\circ}$ Cybersecurity
${ }^{\circ}$ Information Technology (Hybrid)
${ }^{\circ}$ Retail Management and Technology
- BS Social Services


## Minors:

- Law and Justice
- Psychology
- Social Services
- Sociology


## CWU-Wenatchee

At Wenatchee Valley College
Higher Education Center
1300 Fifth Street
Wenatchee, WA 98801
509-665-2600

## Degree Programs:

- BAEd Elementary Education
- BS Interdisciplinary Studies-Social Sciences


## CWU-Yakima

At Yakima Valley College
Deccio Higher Education Center 1000 South 12th Avenue, Room 107
P.O. Box 22520

Yakima, WA 98907
509-574-6894

## Degree Programs:

- BAEd Elementary Education
- BS Interdisciplinary Studies - Social Sciences


# Undergraduate Admissions 

## General Information

Central offers admission to qualified students as they apply. All applicants must submit a completed CWU online or paper admissions application (the online application is preferred) along with a non-refundable application processing fee of $\$ 50$. To apply online visit www.cwu.edu and click on Apply Now.

Freshmen applicants that apply for fall quarter will be notified of an admissions decision within two to four weeks. The priority application date for fall quarter application for freshmen and transfer students is February 1. Applications received after February 1 will be processed on a space-available basis. For the most current information and admissions deadlines for other academic quarters, please visit www.cwu.edu/admissions.

## Freshmen Applicants

Freshmen applicants (students currently enrolled in high school or high school graduates who have earned fewer than 40 college credits after high school graduation, including Running Start credits) must send official copies of all high school and college transcripts, as well as ACT or SAT scores, to the Office of Admissions.

Applicants with a 3.4 cumulative GPA or higher and have satisfied the CADR requirements (see below) will be automatically admitted regardless of ACT or SAT score*. Admission Essay is not required.
*Applicants must still submit an ACT or SAT test scores. Test scores are required if you are applying for Financial Aid and also used for scholarship consideration and for placement into English and Math courses at CWU.

Applicants with a 3.39-3.00 cumulative GPA who have satisfied the CADR requirements will be considered for admission based on grades AND test scores.

For applicants with CADR deficiencies, Admissions will take into account, grade trends, course rigor, senior year course schedule, and ACT/SAT scores.

Applicants with a cumulative GPA of 2.99-2.00 and/or CADR deficiencies will be considered through CWU's Admissions Review Process. In this process we consider grade trends, course rigor, senior year course schedule, and ACT/SAT scores.

CWU does not require an essay at the time of application. If during the review process we feel additional information will be helpful we will request it.

To be considered for admissions, students must have at least a 2.00 cumulative GPA in high school and any applicable college work.

## College Academic Distribution Requirements (CADR)

CADR refers to college admission criteria established by the Washington Student Achievement Council (WSAC). Each school district determines which of its courses meet CADR guidelines. Students are encouraged to take additional courses above and beyond the minimum CADR requirements listed below.

English: 4 credits (including 3 credits of literature and composition)
Math: 3 credits (including algebra I, algebra II and geometry, senior year math-based quantitative course: 1 credit)
(Acceptable courses include algebra I, algebra II, geometry, precalculus and above, math analysis, statistics, applied math, appropriate career and technical courses, or an algebra-based science course such as chemistry or physics. If you take and pass pre-calculus, math analysis of calculus prior to your senior year, you're exempt from this requirement.
Social Science: 3 credits
Lab Science: 2 credits (one credit required in an algebra based lab science)
World Language: 2 credits of the same world language, Native American language or American Sign Language
1 credit of fine, visual, or performing arts, or electives from any of the other required CADR areas

Central Washington University recommends that students take additional courses beyond the minimum to prepare them for university-level work.

## College Credit Earned While in High School

Regardless of the number of college credits completed or if an Associate Degree is earned, students earning college credit while in high school, including coursework taken during summer after graduation, will be considered freshmen for admissions purposes. Running Start students and others with college credit are eligible for all freshmen scholarships and must live on campus for their first year. CWU accepts most college credit earned while in high school, including programs such as:

- Advanced Placement (AP)
- College in the High School
- College Level Examination Program (CLEP)
- CWU Cornerstone
- International Baccalaureate (IB)
- Running Start


## Home-school Applicants

A home-schooled student is any applicant who will complete their high school coursework at home and will not receive a diploma from an accredited high school. An applicant is qualified for freshman admission if they:

- Present evidence of their completion of the academic CADR courses by submitting an official home-school transcript. Transcripts must be signed by a parent or guardian in order to be official.
- Submit ACT or SAT scores
- Provide the GED as proof of high school completion. A GED is not required but may be submitted for eligibility for Federal Financial Aid and to participate in varsity athletics.
- Submit any official college transcripts (if applicable). Regardless of the number of college credits completed, students earning college credit in high school will be considered freshmen for admissions purposes as long as they do not take coursework after graduation from high school (excluding summer).
All home-schooled students will be reviewed by the Admissions Review Process on an individual basis.


## Transfer Applicants

Transfer students who have earned 40 or more college-level credits ( 27 semester credits) must send official copies of all college transcripts to the Office of Admissions. Generally, transfer students who have completed at least 40 college-level transferable credits with at least a 2.5 cumulative GPA will be admissible. Students who have completed college-level math and English and those who have completed a Direct Transfer Associated degree (DTA) will do better in the Admissions Review Process. A current list of DTA degrees is available online at www.cwu.edu/registrar. For current information and application deadlines, visit www.cwu.edu/admissions.

Your application will go through the Admissions Review Process. The admissions review committee takes into account your grade trend, the number of transferable credits you have completed, and type of coursework completed, including college-level English and math completion.

## Admissions Review Process

Central recognizes that many factors affect grades and test scores, so the university utilizes an Admissions Review Process. Freshmen applicants whose cumulative GPA is 2.99 or below and/or who are missing any of the high school CADR requirements, or transfer applicants whose GPA is below 2.5 from any previous college attended, maybe asked to submit an essay. The application will go through the Admissions Review Process.

Other students who may be reviewed through the Admissions Review Process include those who have not completed high school, earned a General Education Development (GED) certificate, as well as students 25 or older who have poor academic histories and have not attended school recently. Applicants may be required to complete supplemental application forms and/or submit additional information or essays.

## International Students

Central welcomes qualified students from other countries. Students demonstrating the greatest potential for success at the university level may be admitted after a thorough review and evaluation of their entire academic background.

Because educational systems vary widely around the world, there is no single, uniform admission requirement for international students. However, they must meet the following minimum requirements for admission purposes:

1. Completion of the academic coursework and national examinations necessary to satisfy admission requirements to colleges and universities in their
native country.
2. Competency in English is required before an I-20 can be issued. If English is not their first language, competency in English must be demonstrated through one of the following:

- English Composition Courses

Receive a 3.0 (B grade) in each of two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions at admissions@cwu.edu to find out what courses are acceptable.

- Undergraduate English as a Second Language (UESL) Program Recommendation

Receive a recommendation from CWU's UESL Program after successful completion of their highest level. CWU also offers Conditional Admissions to students who meet all of the requirements other than English proficiency. For more information and application materials visit
www.cwu.edu/international-programs.

- Test of English as a Foreign Language (TOEFL)

Receive a TOEFL score meeting the following criteria:
A score of 525 or above-Paper-based TOEFL
A score of 195 or above-Computer-based TOEFL
A score of 71 or above-Internet-board TOEFL

- Test of International English Language Testing System (IELTS)
Receive a IELTS score of 6.0
Students who originate from one of the following countries are considered to have met English Proficiency Standards: Australia, Ireland, New Zealand, United Kingdom, and Englishspeaking provinces of Canada. These students are exempt from furnishing proof of English proficiency documents.

International Transfer students who are transferring from U.S. institutions must have a minimum grade point average of 2.5 in transferable college level courses and meet the academic requirements for college entrance in their native country. Please Note: Though not required for admission purposes, adequate financial support, verified by the Confidential Financial Statement form and a current bank letter or scholarship award, is required of all international applicants.

There are three ways of applying to Central Washington University:

1. Apply online. With this option you will submit your application electronically with the online application form and pay your \$50 application fee electronically using a credit card.
2. Download and print copies of required application forms. Links to down-loadable forms in PDF (Portable Document File) format are found online on the CWU Web site. Once completed, your forms and supporting documents should be returned to the CWU Office of Admissions in person or through the mail.
3. Request needed forms be sent to your address.

Contact the CWU Office of Admissions at admissions@cwu.edu with your request. Once completed, your forms and supporting documents should be returned to the CWU Office of Admissions in person or through the mail.

All supporting documents should be sent a minimum of 90 days in advance of the quarter for which the applicant seeks admission.

Students who submit international college or university transcripts must have an official course-by-course translation. Evaluation may be done by university personnel or one of the following foreign credential evaluation companies:
Foundation for International Services (FIS) Inc. at www.fisweb.com.
World Education Services (WES)
www.wes.org/students/index.asp.

## Re-admission of Former Students

Students who interrupt their CWU studies for more than one quarter (excluding summer) must re-apply for admission to the university and pay the application fee. For more information, check the admissions Web site at www.cwu.edu/admissions. If the student has attended any institution during his or her absence from CWU, the student must send official transcripts of all postCWU coursework to the Office of Admissions at the time they re-apply. Eligibility for re-admission will be based on prior academic performance at the university and any courses completed since last attending CWU. If a student left on academic or disciplinary suspension, they should contact the Dean of Student Success for reapplication instructions 30 days prior to the start of the quarter for which the student is applying.

## Confirmation of Admission

Students who are offered admission to the university must confirm their intention to enroll by logging on to MyCWU and using the Accept/Decline button in their Admissions Toolbox. This will begin the orientation, registration, and advising process. The university will not withdraw an offer of admission for fall quarter until after May 1. Students who have not confirmed may be denied admission after that time if enrollment limits have been reached. Students who choose not to accept offers of admission must notify the Office of Admissions in writing or use the same Accept/Decline button in their Admissions Toolbox to decline the offer of admission. An offer of admission is only valid for the academic quarter indicated in the acceptance letter. A student who chooses not to accept an offer of admission may reapply for a subsequent quarter.

## Withdrawal of Offer of Admission

Offers of admission may be withdrawn by the Office of Admissions if a student's academic work between the time of application and the quarter for which the student has applied results in the student not meeting the admissions criteria.

## Non-matriculated Student Application

Students who are not seeking degrees or certificates may be allowed to enroll in courses as non-matriculated students. These students do not need to go through the regular admissions process, but should apply through Registrar Services by completing the Non-Matriculated Application form. Nonmatriculated students register during open enrollment a spaceavailable basis. Credits earned as a non-matriculated student may not be used to satisfy degree or certificate requirements
unless the student applies and is accepted as a matriculated student, in which case a maximum of 45 credits may be applied. Exceptions may be made for non-matriculated students in collaborative certificate programs.

Students who have previously attended Central as matriculated students and have not obtained a degree, and students who have applied and been rejected for undergraduate matriculated status will not be allowed to enroll as non-matriculated students. Nonmatriculated students are not eligible for most financial aid, veteran's benefits, or other services regularly provided for matriculated students.

## High School Enrichment Program

Students who have not yet graduated from high school may be allowed to enroll as non-matriculated students for courses that they need to advance academically, provided that such academic opportunities are not readily available to them elsewhere.

To be eligible for the High School Enrichment Program, students must have demonstrated superior academic performance or preparation in the area of study for which they are applying. High School Enrichment Program applicants must submit official copies of their high school transcript. Some courses may require that the student submit ACT, SAT, or COMPASS scores in order to qualify for placement into those courses. In addition, they must complete the High School Enrichment application that is available from Registrar Services, and obtain the approval of their high school principal, the course instructor, and Registrar. Regular tuition and fees apply. For further information, please call 509-963-3001 or e-mail reg@cwu.edu.

## Central Visitation Program

The Central Visitation program is a student-run program designed to give prospective students an insight into campus life from a student's perspective. Our staff is trained to know all aspects of CWU. The staff understands that visiting campus is one of the most important steps in the college decision-making process.
The Central Visitation program offers a variety of programs to help you explore CWU:

- Campus Tour: Campus walking tours are offered Monday through Friday at 10 a.m. and 2 p.m. Weekend tours are offered Saturday at 1:00 p.m. by appointment only. Check the Web site for a list of available dates. Tours are expected to last at least one hour and 15 minutes depending on the size of the group. Please remember to wear appropriate shoes and clothing for the time of year.
- Saturday Preview Days: offers you a unique opportunity to get great information about the undergraduate admissions process, value of CWU, campus life, and explore our wonderful campus by going on a campus tour. Lunch will be provided by CWU.
- An Official CWU Welcome Packet

For the most current information, dates, and times, visit www.cwu.edu/admissions or call 509-963-1262.

## Transfer Credit

## Equivalency Guides and Policies

Central Washington University accepts a maximum of 135 total transfer credits from regionally accredited four-year schools, including a maximum of 105 total credits from regionally accredited community colleges. Credits are evaluated by Registrar Services based on official transcripts. Credits earned in courses numbered 100 and above are generally accepted toward total transfer credits provided the courses require universitylevel study.

Transfer courses equivalent to CWU courses will apply toward the baccalaureate degree exactly as do the CWU courses for which they are being substituted. Equivalency is established by a course review from the appropriate academic department. Other transfer courses that have not been established as exact equivalents may transfer as general electives and may also be allowed in the degree program with approval from the appropriate academic department chair and, as appropriate, college dean.

Colleges that operate on semester basis give semester credits. Equivalent quarter credits are semester credits multiplied by one and one half.

Credits earned at institutions which are not fully accredited by a regional accrediting association are not accepted. Consideration for exception to this policy may be made by written petition to the dean of the appropriate college after earning a minimum of 45 credits at Central with a cumulative GPA of at least 2.5 .

The university recognizes college credit from a number of sources, including Advanced Placement (AP), College Level Examination Program (CLEP), International Baccalaureate (IB), DANTES and military educational experience or correspondence credit. Up to 45 quarter credits from these programs may be counted toward graduation.

The university endorses the policy on Inter-College Transfer and Articulation among Washington public colleges and universities published by the Washington Student Achievement Council. The policy deals with the rights and responsibilities of transfer students, and the review and appeal process in transfer credit disputes. Contact Registrar Services for more detailed information.

Academic associate degrees which are part of the Direct Transfer Agreements (DTA) between the university and Washington community and technical colleges will meet the general education requirement of a bachelor's degree. Community and technical colleges offer several kinds of associate degrees, therefore, students who plan to transfer to the university should check with their counselors to make sure they are enrolled in the appropriate direct transfer degree program.

Associate of science degrees with transfer agreements between the university and Washington community and technical colleges will meet the general education requirements of a bachelor's degree when students complete additional lower division, general education courses at CWU.

A student cannot earn an associate degree and bachelor's degree in the same quarter.

Academic associate of art degrees from a public community college outside of Washington State, accredited by the Northwest Commission on Colleges and Universities (NWCCU), will meet the general education requirements of a bachelor's degree. Approved degrees are noted on the Registrar website (www.cwu.edu/registrar/transfer-equivalenciespolicies).

Students transferring to CWU from another Washington State public baccalaureate institution, whose General University Requirements or General Education Requirements were complete at the sending institution, will also satisfy all of the CWU General Education Requirements, provided official documentation is received from the sending institute and certified by CWU.

## Credit for Military Service

Matriculated students seeking to use Veterans Affairs Educational Benefits must submit official military transcripts (Joint Services Transcript) for evaluation. Students may receive up to 30 lower and/or upper division credits for completion of military educational experiences as recommended by the American Council on Education (ACE). Basic training and Military Occupational Specialty courses are excluded. Military credit recommendations that are direct equivalents to CWU course offerings may be articulated to that specific course with departmental approval. If direct course equivalents do not exist, elective credit will be awarded when possible.

## Non-U.S. College/University Credit

Credit will be accepted from non-U.S. institutions of higher education when (1) it has been earned at an institution linked to CWU either by a bilateral or consortial (e.g., International Student Exchange Program (ISEP) agreement, or when an institution has been certified by the CWU Office of International Studies and Programs as a legitimate, recognized institution of higher education (tertiary level) within a particular country; (2) the student has received a passing grade recognized by the institution; and (3) an official record or transcript has been received by the university.

## Non-Transferable Courses

Credit will not be granted for vocational/technical courses; noncredit courses and workshops; remedial or college preparatory courses; or sectarian religious studies.

## Degrees Offered

Central Washington University offers the following undergraduate degrees:

Bachelor of Applied Science
Bachelor of Arts
Bachelor of Arts in Education
Bachelor of Fine Arts
Bachelor of Music
Bachelor of Science
Students wishing to earn a BA, BAS, BAEd, BFA, BM, or BS degree must complete (1) the general education program; (2) a concentration of at least 60 credits which may be satisfied by a specified major, or a specified major and minor, or a specified major and courses in other fields as prescribed by the major department; (3) electives in sufficient quantity to include 60 upper-division credits to bring the total quarter credits to 180 ; and (4) other degree requirements as specified in the catalog under Graduation Requirements. Department fields of study are listed by major, minor, or specialization by college on the undergraduate programs offered. Minor concentrations are offered in many fields.

Students wishing to earn a BAEd degree must complete (1) the general education program; (2) a major in Early Childhood Education, Elementary Education or Special Education and minors, when appropriate; (3) the professional education foundation courses; (4) 180 total quarter credits (including 60 upper-division credits); and (5) other general degree requirements as listed under the College of Education and Professional Studies and Graduation Requirements sections in this catalog. Students may select any university minor; however, students are strongly encouraged to select an endorsable teaching minor.

## Advanced Placement Credit

The University will grant at a minimum elective credit for College Board Advanced Placement (AP) exams completed with a score of three (3) or higher. Students may receive credit for advanced placement with a grade of S, depending upon the scores achieved on the College Entrance Examination Board Advanced Placement Test (AP). Students must request that their AP test scores be sent to the Registrar Services at Central. Scores of 3 or better on Advanced Placement Examination will be awarded as free electives for departments without specific policy. No more than 45 total quarter credits through AP or other sources of nontraditional credit may apply toward graduation requirements.

| Department | AP Score | CWU Equivalent (credit amount) |
| :---: | :---: | :---: |
| Art and Design |  |  |
| Art 2D | 3, 4, 5 | Electives (5) |
| Art 3D | 3, 4, 5 | Electives (5) |
| Art History | 3, 4, 5 | Aesthetic Experience (5) |
| Art Studio | 3, 4, 5 | Electives (5) |
| Biology | 3 | BIOL 101 (5) |
|  | 4, 5 | BIOL 181 and 182 (10) |
| Chemistry | 3, 4 | Fundamental Disciplines of Physical and Biological Sciences (5) |
|  | 5 | CHEM 181, 181LAB, 182, 182LAB (10) |

Computer Science

|  | Computer Science A | 3,4 | CS 110 (4) |
| :--- | :--- | :--- | :--- |
|  | Computer Science A | 5 | CS 110, 111 (8) |
|  | Computer Science AB | $3,4,5$ | CS 110, 111 (8) |
|  | Computer Science Principles | $3,4,5$ | Computer Fundamentals (4) |

Economics

|  | Micro Economics | $3,4,5$ | ECON 201 (5) |
| :--- | :--- | :--- | :--- | :--- |
|  | Macro Economics | $3,4,5$ | ECON 202 (5) |

English

|  | Lang and Comp | $3,4,5$ | ENG 101 (5) |
| :--- | :--- | :--- | :--- |
|  | Lit and Comp | $3,4,5$ | ENG 105 (5) |

Environmental Science

|  |  | 3,4 | ENST 201 (5) |
| :--- | :--- | :--- | :--- |
|  |  | 5 | ENST 201 and ENST 202 (10) |

Geography

| Human Geography | $3,4,5$ | GEOG 108 (5) |
| :--- | :--- | :--- |

## History

|  | U.S. History | 3,4 | HIST $144(5)$ |
| :--- | :--- | :--- | :--- |
|  | U.S. History | 5 | HIST 143 and HIST 144 (10) |
|  | World History | $3,4,5$ | HIST 103 (5) |
|  | European History | $3,4,5$ | Perspectives on World Cultures (5) |

Mathematics

|  | Calculus AB | $3,4,5$ | MATH $172(5)$ |
| :--- | :--- | :--- | :--- |
|  | Calculus BC | $3,4,5$ | MATH 172 and MATH 173 (10) |
|  | Math Statistics | $3,4,5$ | MATH 311 (5) |

[^0]| Music Listening and Literature | 3, 4, 5 | Music Elective (4) |
| :---: | :---: | :---: |
| Music Theory | 3, 4, 5 | Music Elective (4) |
| Physics |  |  |
| Physics 1 | 3 | Fundamental Disciplines of Physical and Biological Sciences (5) |
| Physics 1 | 4, 5 | PHYS 111 (5) |
| Physics 2 | 4, 5 | PHYS 112 and PHYS 113 (10) |
| Physics C |  |  |
| Mechanics | 3 | Fundamental Disciplines of Physical and Biological Sciences and Natural Sciences Lab (5) |
| Mechanics | 4, 5 | PHYS 181 and PHYS 182 (10) |
| Electricity \& Magnetism | 4, 5 | PHYS 183 (5) |
| Political Science |  |  |
| American Govt | 3, 4 | Political Science Elective (5) |
| American Govt | 5 | POSC 210 (5) |
| Comparative Politics | 3, 4 | Political Science Elective (5) |
| Comparative Politics | 5 | POSC 260 (5) |
| Psychology |  |  |
|  | 3 | Psychology Elective (5) |
|  | 4, 5 | PSY 101 (5) |
| World Languages |  |  |
|  | 3 | WL 251 (5) |
|  | 4 | WL 251, 252 (10) |
| Maximum 15 total cr. | 5 | WL 251, 252, 253 (15 max) |
| French Literature | 3, 4, 5 | French Elective (5) |
| Spanish Literature | 3, 4, 5 | Spanish Elective (5) |
| Latin Literature | 3, 4, 5 | World Language Elective (5) |
| Latin Vergil | 3, 4, 5 | World Language Elective (5) |

## College Level Examination Program

Students will be awarded college-level quarter credits with a grade of S for each score at the 50 th percentile on the College Level Examination Program (CLEP) humanities, social science/history and natural sciences examinations. These credits will meet the general education requirements in the appropriate areas. Students may also be awarded credit for subject examinations as determined by appropriate academic departments at the time of application for credit.

No more than 45 total quarter credits through CLEP or other sources of nontraditional credit may apply to graduation requirements. CLEP credit is not awarded for English.

| College Level Examination Program |  |  |
| :---: | :---: | :---: |
| CLEP Test Scores for Central Washington University at the 50th Percentile or Above. |  |  |
|  | Score | CWU Equivalent (credit amount) |
| Calculus with Elementary Functions | 50+ | MATH 172 and 173 (10) |
| Chemistry | 63+ | CHEM 181, 181LAB (5) |
| College Mathematics | 50+ | Basic Skills Math (5) |
| Macroeconomics | 50+ | Economics Elective (5) |
| Microeconomics | 50+ | Economics Elective (5) |
| Human Growth and Development | 50+ | PSY 314 (4) |
| Humanities | 50+ | Literature and the Humanities (5) |
| Info Systems and Computer Applications | 54+ | CS 101 (4) |
| Intro to Psychology | 50+ | PSY 101 (5) |
| Intro Ed. Psychology | 50+ | PSY 315 (4) |
| Intro to Sociology | 50+ | SOC 107 (5) |
| Natural Sciences | 50+ | Fundamental Disciplines of Physical and Biological Sciences (5) |
| Social Science and History | 50+ | Perspectives on the Cultures and Experiences of the US (5) |
| Western Civilization I | 50+ | HIST 101 (5) |
| Western Civilization II | 50+ | HIST 102 or 103 (5) |
| US History I | 57+ | HIST 143 (5) |
| US History II | 54+ | HIST 144 (5) |
| French Language Level I | 50-61 | French 100-level elective (15) |
| German Language Level I | 50-62 | German 100-level elective (15) |
| Spanish Language Level I | 50-62 | Spanish 100-level elective (15) |
| *CLEP cannot meet major or minor requirements in the World Language department. |  |  |

## International Baccalaureate

Central recognizes the International Baccalaureate (IB) program as a coherent, challenging course of study and responds individually to each participant's IB transcript for award of college credit. Central will grant at a minimum elective credit for International Baccalaureate (IB) higher level exams completed with a score of five (5) or higher, with exceptions. Standards for acceptance will be established by the appropriate academic departments and listed in the official catalog. CWU recognizes the International Baccalaureate Diploma and awards up to 45 quarter credits ( 30 semester credits). With the receipt of a Diploma, credit will be awarded for 3 courses ( 15 quarter credits) and distributed evenly among the three general education breadth areas (natural sciences, social sciences, arts and humanities). These credits will not be applied to lab or writing courses. An additional 30 quarter credits ( 20 semester credits) may be awarded in the areas of the students' higher level subject exams with a score of 5 or higher. No more that 45 total quarter credits through IB or other sources of nontraditional credit may apply toward graduation requirements.

| IB Department | Exam | Score | CWU Equivalent (credit amount) |
| :---: | :---: | :---: | :---: |
| Art Appreciation | HL | 4+ | ART 103 (4) |
| Biology | HL | 4 | BIOL 101 (5) |
|  | HL | 5 | BIOL 101 and BIOL 181 (10) |
|  | HL | 6+ | BIOL 181, 182, 183 (15) |
| Business and Management | SL | 4+ | BUS Elective (5) |
|  | HL | 4+ | BUS Elective (5) |
| Chemistry | SL | 4+ | CHEM Elective (5) |
|  | HL | 4 | CHEM 181 (5) |
|  | HL | 5 | CHEM 181, 182 (10) |
|  | HL | 6+ | CHEM 181, 182, 183 (15) |
| Computer Science | HL | 4+ | CS 110 (4) |
| Dance | SL | 4+ | PED Elective (3) |
|  | HL | 4+ | PED Elective (3) |
| Economics | SL | 4+ | ECON 101 (5) |
|  | HL | 4+ | ECON 101 (5) |
| English | HL | 4+ | ENG 101 (4) |
| Environmental Systems and Societies | SL | 4+ | ENST Elective (5) |
|  | HL | 4+ | ENST Elective (5) |
| Film | SL | 4+ | FILM Elective (5) |
|  | HL | 4+ | FILM Elective (5) |
| Geography | HL | 4+ | GEOG 208 (5) |
| Global Politics | SL | 4+ | POSC Elective (5) |
|  | HL | 4+ | POSC Elective (5) |
| History: | HL | 4+ | HIST 101 |
| Americas |  | 4+ | HIST 101 and HIST 386 (10) |
| Africa |  | 4+ | History Elective/SB-B (5) |
| W. South Asia |  | 4+ | History Elective/SB-B (5) |
| E. Southeast Asia |  | 4+ | History Elective/SB-B (5) |
| Europe |  | 4+ | History Elective/SB-B (5) |
| Information Technology in a Global Society | SL | 4+ | IT Elective (3) |
|  | HL | 4+ | IT Elective (3) |
| Mathematics | SL | 4+ | MATH Elective (5) |
|  | HL | 4+ | MATH Elective (5) |
| Music | SL | 4+ | MUS Elective (3) |
|  | HL | 4+ | MUS Elective (3) |
| Philosophy | HL | 4+ | PHIL 201 (5) |
| Physics | HL | 4 | PHYS Elective (5) |
|  | HL | 5+ | PHYS 181, 182, 183 (15) |
|  | SL | 4 | PHYS Elective (5) |
|  | SL | 5+ | PHYS 111, 112,113 (15) |
| Psychology | HL | 4+ | PSY 101 (5) |
| Social and Cultural Anthropology | SL | 4+ | ANTH Elective (5) |
|  | HL | 4+ | ANTH Elective (5) |


| Theatre | SL | $4+$ | TH Elective (4) |
| :--- | :--- | :--- | :--- |
|  | HL | $4+$ | TH Elective (4) |
| World Languages | SL | 4 | WL 151 |
|  | SL | $5+$ | WL 151 and 152 (10) |
|  | HL | 4 | WL Elective (5) |
|  | HL | 5 | WL 251 (5) |
|  | HL | 6 | WL 251, 252 (10) |
|  | HL | 7 | WL 251, 252, 253 (15) |
| World Religions | SL | $4+$ | RELS Elective (5) |
|  | HL | $4+$ | RELS Elective (5) |
| SL= Standard Level |  |  |  |
| HL= High Level |  |  |  |
| Must have High School certificate or degree posted on transcript for credits to be accepted. |  |  |  |

## Cambridge International AS/A Level Exams

Once the student has submitted the original exam certificate directly from Cambridge International, students will be awarded up to 15 quarter credits for each A-level exam with a passing grade and up to 7.5 quarter credits will be granted for each AS-level exam with a passing grade. A satisfactory ( S ) grade will be posted for A-level or AS-level exams.

No more than 45 total quarter credits through Cambridge International or other sources of nontraditional credit may apply to graduation requirements. Cambridge International credit is not awarded for ENGL 101.

| Cambridge Department | Exam | Score | CWU Equivalent (credit amount) |
| :---: | :---: | :---: | :---: |
| Accounting | AS | A-E | ACCT Elective (7.5) |
|  | A | A-E | ACCT Elective (15) |
| Art |  |  |  |
| ART - Art \& Design | AS | A-E | ART Elective (7.5) |
|  | A | A-E | ART Elective (15) |
| ART - Digital \& Media Design | AS | A-E | ART Elective (7.5) |
|  | A | A-E | ART Elective (15) |
| Biology | AS | A-E | BIOL Elective (7.5) |
|  | A | A-E | BIOL Elective (15) |
| Business | AS | A-E | BUS Elective (7.5) |
|  | A | A-E | BUS Elective (15) |
| Chemistry | AS | A-E | CHEM Elective (7.5) |
|  | A | A-E | CHEM Elective (15) |
| Classical Studies | AS | A-E | HUM Elective (7.5) |
|  | A | A-E | HUM Elective (15) |
| Computer Science | AS | A-E | CS Elective (7.5) |
|  | A | A-E | CS Elective (15) |
| Design and Technology | AS | A-E | ETSC Elective (7.5) |
|  | A | A-E | ETSC Elective (15) |
| Economics | AS | A-E | ECON Elective (7.5) |
|  | A | A-E | ECON Elective (15) |
| Design and Textiles | AS | A-E | ATM Elective (7.5) |
|  | A | A-E | ATM Elective (15) |
| English |  |  |  |
| ENG - English Literature | AS | A-E | ENG Elective (7.5) |
|  | A | A-E | ENG Elective (15) |
| ENG - Literature in English | AS | A-E | ENG Elective (7.5) |
|  | A | A-E | ENG Elective (15) |
| ENG - Language \& Literature in English | AS | A-E | ENG Elective (7.5) |
| Environmental Management | AS | A-E | ENST 201 (5) and ENST Elective (2.5) |
| Geography | AS | A-E | GEOG Elective (7.5) |
|  | A | A-E | GEOG Elective (15) |
| Global Perspectives \& Research | AS | A-E | Transfer Elective (7.5) |
|  | A | A-E | Transfer Elective (15) |
| History |  |  |  |
| HIST - Component 1 (World) | AS | A-E | HIST Elective (7.5) |
| HIST - Component 2 (U.S.) | AS | A-E | HIST Elective (7.5) |
| HIST - Component 3 (World) | A | A-E | HIST 101, 102, and 103 (15) |
| HIST - Component 3 (U.S.) | A | A-E | HIST 143 and 144 (10) and HIST Elective (5) |
| HIST - Component 4 (World) | A | A-E | HIST 101, 102, and 103 (15) |
| HIST - Component 4 (U.S.) | A | A-E | HIST 143 and 144 (10) and HIST Elective (5) |


| Information Technology |  |  |  |
| :---: | :---: | :---: | :---: |
| IT - Applied Information \& Communication Technology | AS | A-E | IT Elective (7.5) |
|  | A | A-E | IT Elective (15) |
| IT - Information Technology | AS | A-E | IT Elective (7.5) |
|  | A | A-E | IT Elective (15) |
| Law | AS | A-E | LAJ Elective (7.5) |
|  | A | A-E | LAJ Elective (15) |
| Marine Science | AS | A-E | Transfer Elective (7.5) |
|  | A | A-E | Transfer Elective (15) |
| Mathematics |  |  |  |
| MATH - Mathematics | AS | A-E | MATH 172 (5) and MATH Elective (2.5) |
|  | A | A-E | MATH 172 and 173 (10) and MATH Elective (5) |
| MATH - Further Mathematics | A | A-E | MATH 265 and MATH Elective (11) |
| Media Studies | AS | A-E | COM Elective (7.5) |
|  | A | A-E | COM Elective (15) |
| Music | AS | A-E | MUSC Elective (7.5) |
|  | A | A-E | MUSC Elective (15) |
| Nepal Studies | AS | A-E | Transfer Elective (7.5) |
| Physics | AS | A | PHYS 181 (5) and PHYS Elective (2.5) |
|  | AS | B-C | PHYS 111 (5) and PHYS Elective (2.5) |
|  | AS | D-E | PHYS Elective (7.5) |
|  | A | A | PHYS 181, 182, and 183 (15) |
|  | A | B-C | PHYS 111, 112, and 113 (15) |
|  | A | D-E | PHYS Elective (15) |
| Psychology | AS | A-C | PSY 101 (5) and PSY Elective (2.5) |
|  | AS | D-E | PSY Elective (7.5) |
|  | A | A-E | PSY 101 (5) and PSY Elective (10) |
| Religious Studies |  |  |  |
| RELS - Divinity | AS | A | RELS 353 or 354 (5) and RELS Elective (2.5) |
|  | AS | B-E | RELS Elective (7.5) |
|  | A | A | RELS 353 or 354 (5) and RELS Elective (10) |
|  | A | B-E | RELS Elective (15) |
| RELS - Islamic Studies | AS | A | RELS 355 (5) and RELS Elective (2.5) |
|  | AS | B-E | RELS Elective (7.5) |
|  | A | A | RELS 355 (5) and RELS Elective (10) |
| RELS - Hinduism | AS | A | RELS 352 (5) and RELS Elective (2.5) |
|  | AS | B-E | RELS Elective (7.5) |
|  | A | A | RELS 352 (5) and RELS Elective (10) |
|  | A | B-E | RELS Elective (15) |
| Sociology | AS | A-E | SOC Elective (7.5) |
|  | A | A-E | SOC Elective (15) |
| Thinking Skills | AS | A-E | Transfer Elective (7.5) |
|  | A | A-E | Transfer Elective (15) |
| Travel and Tourism | AS | A-E | RTE Elective (7.5) |
|  | A | A-E | RTE Elective (15) |
| World Languages |  |  |  |
| WL - French | AS | A-E | FR Elective (7.5) |
|  | A | A-E | FR Elective (15) |
| WL - German | AS | A-E | GERM Elective (7.5) |
|  | A | A-E | GERM Elective (15) |
| WL - Japanese | AS | A-E | JAPN Elective (7.5) |
| WL - Spanish | AS | A-E | SPAN Elective (7.5) |
|  | A | A-E | SPAN Elective (15) |
| WL - Arabic, Afrikaans, Hindi, Portuguese, Tamil, Urdu | AS | A-E | FNLA Elective (7.5) |
|  | A | A-E | FNLA Elective (15) |

## Tuition and Fees

## General Tuition and Fees

General tuition and fee rates are established by the State Legislature and miscellaneous fees are set by the CWU Board of Trustees. The tuition rates shown below are an estimate. All tuition and fees are subject to change without notice.

Tuition rates for 2018-2019 are not available at this time.

## Undergraduate and post-baccalaureate students registering for $\mathbf{1 0 - 1 8}$ credits:

Quarterly tuition fees for residents of the state of Washington \$2,012.20
Quarterly tuition fees for nonresidents of the state of Washington $\$ 6,714.50$

## Undergraduate and post-baccalaureate

students registering for nine credits or less:
Resident: Each credit, \$201.22
Minimum of \$402.44
Nonresident: Each credit, \$671.45
Minimum of \$1,342.90
Graduate (Master's Degree)
students registering for $\mathbf{1 0 - 1 8}$ credits:
Resident graduate: \$2,924.90
Nonresident graduate: $\$ 6,851.50$
Graduate (Master's Degree)

## students registering for nine credits or less:

Resident graduate: Each credit, \$292.49
Minimum of $\$ 584.98$
Nonresident graduate: Each credit, \$685.15
Minimum of \$1,370.30

## Students registering for more than 18 credits:

Undergraduate and post-baccalaureate, Resident: Each credit over 18, \$201.22
Nonresident: Each credit over 18, \$671.45
Resident graduate: Each credit over 18, \$292.49
Nonresident graduate: Each credit over 18, $\$ 685.15$

## Continuing Education Tuition Fees

All courses taught through the Office of Continuing Education are self-supporting. The waiver for veterans, university staff and senior citizens does not apply. Full fee-paying students must make additional payments at the rate established for each continuing education course in which they enroll.

## Resident and Non-Resident Status

Washington State law concerning resident classification for tuition and fee purposes, RCW 28B.15.012 et seq., requires that a student "(a)(i) have established a bona fide domicile in the state of Washington, primarily for purposes other than educational, for at least one year immediately prior to the beginning of the quarter for which he or she registers at the university, and (ii) be financially independent, or (b) be a dependent student, one or both of whose parents or legal guardians have maintained a bona fide domicile in the state of

Washington for at least one year prior to the beginning of the quarter for which the student registers at the university." The term "domicile" denotes a person's true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain, and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.

Any change of residency status for a given quarter must be based on written evidence provided by the student on a residency classification questionnaire on or before the first class day of the quarter for which a change of residency is sought. Questionnaires are available through Registrar Services. The burden of proof in all cases rests with the student.

In accordance with RCW 28B.15.014, certain nonresidents are exempted from paying nonresident tuition and fees. To be eligible for such an exemption, a nonresident student must provide documented evidence that he or she resides in the state of Washington, and (a) holds a graduate service appointment, designated as such by the university, involving not less than 20 hours per week; (b) is employed for an academic department in support of the instructional or research programs involving not less than 20 hours per week; or (c) is a faculty member, classified staff member, administratively exempt employee holding not less than a half-time appointment, or dependent child of such a person.

## Resident Tuition for Veterans and Eligible Individuals

 Effective July 24, 2015, ESSB 5355 was signed into law in July 2015, modifying the definition of resident student to comply with federal requirements established by the Veterans Access, Choice, and Accountability Act of 2015 (Choice Act). The Choice Act requires states to charge in-state tuition and fees to "covered individuals" in order for the Department of Veterans Affairs to approve programs of education for everyone training under the Post 9/11 GI Bill and the Montgomery GI Bill.
## A "covered individual" is defined in the Choice Act as:

1. A Veteran who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three (3) years of discharge from a period of active duty service of 90 days or more.
2. A spouse or child using transferred benefits who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three (3) years of the transferor's discharge from a period of active duty service of 90 days or more.
3. A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residency) and enrolls in the school within three (3) years of the service member's death in the line of duty following a period of active duty service of 90 days or more.
The Choice Act does not apply to active duty service members or dependents of active duty service members.

## Eligibility Requirements

Covered individuals may qualify to pay in-state tuition and fees, regardless of his/her formal state of residence. To apply for residency for tuition purposes as covered individuals, the following criteria must be met:

1. Separated from the uniformed services with any period of honorable service after at least ninety (90) days of active duty service. Must provide DD-214 to show separation date. Uniformed services include: Army, Navy, Marine Corps, Air Force, Coast Guard, US Public Health Service Commissioned Corps, and the National Oceanic and Atmospheric Administration Commissioned Officer Corps.
2. Lives in Washington and enters a Washington higher education institution within three (3) years of discharge from a period of active duty service. Enters is defined as the first day of the quarter prior to the end of the third year of discharge.
3. Has received a Certificate of Eligibility verifying VA educational benefit.
Procedure:
4. Request for Veterans Center to send supporting documents to Registrar's Office.
5. Contact Registrar's Office to complete additional paperwork reg@cwu.edu 509-963-3001.

## Out-of-State Applicants

To qualify as a Washington State resident, a student must be a U.S. citizen or have permanent resident (resident alien) status. A student must also be either independent and have established a permanent home in the state of Washington for purposes other than education at least 12 months prior to enrollment. Verification will be requested.

The spouse or dependent of a person who is on active military duty, stationed in Washington, can be classified as a resident, for tuition paying purposes, by submitting proof of military assignment. A student cannot qualify as a Washington resident if $\mathrm{s} / \mathrm{he}$ (or parent, in the case of a dependent) has attended college as a resident of another state within a year prior to enrollment; has received financial assistance from another state, including reciprocity awards, within a year prior to enrollment; or possesses a current out-of-state driver's license, vehicle registration or other document which gives evidence of being domiciled in another state. For further information, contact Registrar Services at 509-963-3001.

Residency questions should be directed to Registrar Services. Residency requirements are subject to legislative change.

## Senior Citizens

Senior citizens are encouraged to take advantage of the large variety of courses offered at the university. Persons 60 years of age or older may register as an auditor the first day of class on a space-available basis with permission of instructor. The fee is $\$ 5$ for a maximum of two courses, not to exceed six credits. Any person utilizing this provision taking more than six credits must pay an additional $\$ 25$ tuition charge. Credits may not be applied toward meeting requirements for any degree or for increments
on any wage or salary scale. Waivers are not available during summer quarter.

## Veterans Conflict Grant

## Not available summer quarter.

Central Washington University (CWU) offers a Veteran Conflict Grant (amount of available grant is determined each academic year) with the following limitations and requirements:

1. Admission to CWU.
2. DD-214 Member 4 copy showing Honorable Discharge (all grants are awarded on information that that Department of Defense (DOD) codes on each DD-214).
3. Veteran must be a Washington State Resident.
4. Veteran must complete the FAFSA-Financial Aid Application each year.
5. Minimum enrollment must be halftime ( 6 credits)
6. The Veteran of Foreign Conflict Waiver/Central Grant can be received for up to 225 quarter credits.
This grant replaces all other military conflict waivers awarded in the past by CWU. For further information, contact the Veterans Center at 509-963-3028 or e-mail va@cwu.edu or check the website at: www.cwu.edu/veterans.

## Children and Spouse of Totally Disabled or POW/MIA or Deceased Eligible Veterans or National Guard Members

Tuition Waiver: The Washington State legislature RCW 28B.15.621 established this waiver to honor active and reserve veterans, National Guard members and their dependents. This is a mandatory tuition waiver for the children and spouse of totally disabled or POW/MIA or deceased eligible veterans or National Guard Members. Children, Spouse and Veteran must be Washington State residents.

- Child and spouse of an eligible veteran or National Guard member who became totally disabled;
- Child and spouse of an eligible veteran or National Guard member determined to be a prisoner of war or missing in action;
- Child and spouse of an eligible veteran or National Guard member who lost his or her life;
- The Washington State Disabled Veteran Dependent Tuition Waiver can be received up to 200 quarter credits or in the case of the child, until they turn 27 years old.
- Child is defined as a biological child, adopted child, or stepchild.
For more information, contact the Veterans Center at 509-963-
3028 or e-mail va@cwu.edu, or check the website at www.cwu.edu/veterans.


## Washington State Employee Tuition Waiver

Educating the citizens of Washington State is integral to Central Washington University's mission. CWU encourages and supports its employees, as well as non-CWU state employees and others as allowed by law, to continue their education as prescribed through this educational benefits policy. Central Washington University provides educational benefits for Central Washington University faculty, exempt, and classified staff, non-CWU state employees, members of the Washington National Guard, and veterans (as defined by 41.04.005 RCW)
who are not eligible for educational benefits from the Veteran's Administration. Eligible employees (CWU and state) must hold appointment to a half-time or more position. In addition, civil service employees must have permanent status (i.e., passed their probationary period). Faculty and exempt employees who are employed half time or more and are expected to be employed for more than six months are eligible on the first day of employment. Eligible CWU employees may take up to eight (8) credit hours of course work per quarter. Washington National Guard, veterans, and non-CWU state employees may take up to six (6) credit hours of course work per quarter. Faculty who are hired on a quarter-to-quarter basis will become eligible beginning with the second consecutive quarter of half-time or more employment. For the purposes of this section, employment of faculty in spring quarter and the following fall quarter may constitute consecutive employment.

Employees who are not eligible for the tuition and fee waiver are: faculty on courtesy appointments; retired faculty, staff, and exempt personnel; and undergraduate and graduate assistants, associates, or others holding positions with student status. Employees must meet university admission requirements and file proof of eligibility with the Office of the Registrar no less than 15 working days prior to the beginning of each academic term may take up to eight credit hours of coursework for a nominal fee each quarter (summer excluded). Enrollment is subject to space availability only. Enrollment in a closed or wait-listed course under this waiver is prohibited. A waiver processing fee and course fees may apply. Refer to CWU academic policy: www.cwu.edu/resources-reports/cwup-2-20090 -waiver-tuition-and-fees for further information.

## Tuition Refund Schedule

A continuing student will receive a 100 percent refund of tuition and fees if a complete withdrawal from the university occurs prior to the sixth day of the quarter.
A student will receive a 50 percent refund of tuition and fees if a complete withdrawal from the university occurs on or after the sixth day of the quarter and within 30 calendar days of the beginning of the quarter.

There is no refund of tuition and fees if withdrawal from the university occurs after the 30th calendar day of the quarter.

There is no refund for individual class withdrawals after the change of schedule period.

Tuition and fees may be refunded to students unable to complete coursework as a result of medical circumstances or being called to active duty in the Armed Forces of the United States. Students must petition Registrar Services.

## Miscellaneous Fee Schedule

Fees are subject to change for the 2018-2019 academic year.

## Application for Admission Fee: $\$ 50$.

Athletic Fee: $\$ 56$ mandatory fee per quarter for all students. Students with less than 10 credits will be assessed $\$ 5.60$ per credit. This fee supports student athletics and provides free admittance to all events. Ellensburg campus only.

Audit Fee (without credit): A student enrolling in a course as an auditor is charged regular fees.

Background Check Fee: In order to participate in certain programs/majors a student must arrange for and obtain a criminal background check from the appropriate law enforcement agency. Information regarding the process, requirements, and costs can be obtained through the department offering the program/major.

Breakage Fee: Students enrolled in certain courses are required to pay for any equipment they break. Fees are variable according to the item broken.

Central Transit Fee: $\$ 3$, mandatory fee per quarter for all Ellensburg students. This provides bus transportation throughout town.

Credit by Examination Fee: Students applying to challenge a course will be assessed a nonrefundable fee of $\$ 15$ per credit, with a minimum of $\$ 30$ per course challenge.

Graduation Application Fees: The fee for a baccalaureate degree is $\$ 50$. The fee for degree reapplication is $\$ 20$. An additional $\$ 12$ will be assessed for concurrent degrees and an additional fee of $\$ 17$ per diploma when requesting more than one diploma for multiple majors. For further information, www.cwu.edu/registrar/degree-checkout-fees.

Health and Accident Insurance: Group insurance is optional. An additional premium will allow student dependents to be covered by medical facilities other than the student health center, which is reserved for student use only. For further information, inquire at the Cashier's Office.

International Studies Application Fee: A fee of $\$ 50$ per student per quarter for students participating in study abroad or exchange programs.

Late Fee: Students failing to pay their tuition in full by the published deadline are assessed a $\$ 50$ and $\$ 100$ late fee.

Late Registration Fee: Students will be charged a $\$ 25$ per course fee for registration from the sixth through the 10th day of instruction; a $\$ 50$ fee per course for the 11th day through the 30th day of instruction; and $\$ 75$ per course after the 30th day. Permission to add courses will still require signature of the instructor or the department chair and the college dean after the 10th day of classes.

Library Fee: $\$ 10$, mandatory fee per quarter for all students.
Master's Thesis Binding Fee: Students submitting a thesis as part of the requirements for the Master's degree pay a fee of $\$ 75$ for binding of three copies of their thesis. Two copies are deposited in the library and one copy is given to the student. Students not wishing a copy for themselves will be assessed $\$ 50$. Any students wanting more than one copy for themselves must make their own binding arrangements for the extra copies.

Parking: Students using the university's parking facilities must purchase a campus parking permit.

Recreation Center Fee: $\$ 102$, mandatory fee per quarter for all Ellensburg campus-based students enrolled for six credits or more.

Registration Cancellation Fee: Students who register and do not drop their classes prior to the change of schedule period and have extenuating circumstances that result in a refund of tuition will be assessed a $\$ 50$ cancellation fee.

Student-in-Training (Liability) Insurance: In order to register for certain courses, a student must arrange for individual student-in-training (liability) insurance purchased either through the CWU business office or through some other agency. Information regarding types of coverage available may be obtained from the department chair or program director.

Student Medical and Counseling Clinic Fee: \$91, mandatory fee per quarter for all Ellensburg campus-based students enrolled for six credits or more. Students can see a physician for free regardless of insurance status. Students only pay for testing costs. In order to get this fee waived students must live outside of town or be a CWU employee or staff member.

Student Lobby Fee (WSL): \$1, mandatory fee per quarter for all students. This fee supports student lobbying for CWU needs in Olympia.

Supply and Equipment Fees: Students enrolling in certain courses are charged for supplies and equipment not furnished as part of the course.

SURC Building Fee: $\$ 69$, mandatory fee per quarter for all Ellensburg campus-based students enrolled for 10 credits or more. Students with less than 10 credits will be assessed $\$ 6.90$ per credit. Students with one credit will be assessed the same as the two-credit fee, $\$ 13.80$. This building is OWNED by the STUDENTS. This fee pays for operational costs such as utilities and monthly lease. When the building was built students voted to pay the cost of the building and that cost is continued through every year that the debt is not paid off.

Technology Fee: $\$ 30$, mandatory fee per quarter for all students. Students with less than 10 credits will be assessed \$ 3.00 per credit. Pays for student's ability to use computers, software, and print on campus.

Transcript Fee: $\$ 10$ for each copy. $\$ 18$ for on demand, express mail or FAX copies. All fees are due in advance. A $\$ 2.25$ credit card fee may apply if ordering through the clearinghouse. For more information, www.cwu.edu/registrar/request-transcripts.

Tuition Nonpayment Fee: Students who have not paid full tuition by the 30th calendar day of the quarter will be assessed a $\$ 100$ tuition nonpayment fee. A hold will be placed on their student record and they will be liable for 100 percent of tuition and fees. Students will receive notification to their CWU e-mail account. Students must have their student account cleared prior to registering for future quarters.

Web-based Course Fee: $\$ 40$ per class will be assessed for all Web (WW) courses.

Wellness Fee: $\$ 18$, mandatory fee per quarter for all Ellensburg students. The wellness center promotes healthy decision making and prevention services, confidential support for issues related to alcohol/drugs/sexual violence. It also provides training for students to handle these sorts of situations. In order to waive this fee, students must live outside of town or be a CWU employee or staff.

## Financial Obligation

Registering for classes or receiving services for which payment is required will create a CWU account and constitutes a contractual financial obligation according to the rules and regulations of the State of Washington. The student or other CWU account holder agrees to pay for all charges incurred at Central Washington University including but not limited to tuition and fees, housing and dining charges, university store purchases, day care charges, financial aid over-awards, and other miscellaneous charges or fines for services received at the recreation center, the medical and counseling center, the library, parking, special events, or any other CWU service offering. It is the student's or account holder's responsibility to ensure that his/her account is kept current and that payments are made by the published due dates to avoid additional charges. Charges that are not paid by the due dates may be assessed late fees, a $1 \%$ interest charge, and all university services may be suspended including admission to or registration with the university, conferring of degrees, and issuance of academic transcripts.

Furthermore, the University or its representative will make reasonable attempts to collect any past due charges by letter, phone, e-mail, or any other reasonable method including text messages as required by the State of Washington.

Enrolled students will receive an e-mail notification when the billing statement is available to view online or a monthly statement if the account holder is not an enrolled student. The account information can only be released to the account holder. Statements are located online through MyCWU account.

Any unpaid balance to the University that is not being paid through a satisfactory payment arrangement, will be placed with an external collection agency and will be subject to additional collection fee of up to $33 \%$ of the original debt as allowed by the State of Washington. In addition, if the account goes to litigation, it may be assessed additional attorney and legal fees of up to $40 \%$ of the original debt. Accounts placed with outside collection agencies may be reported to all three credit bureaus (Equifax, TransUnion, and Experian).

# Financial Aid and Scholarships 

## Financial Aid

Each year approximately 80 percent of CWU students receive financial aid. To be eligible for federal aid a student must be a U.S. citizen, a permanent resident, or eligible non-citizen. Washington state aid programs are also available to financially eligible DREAMers (undocumented students) who complete the Washington Application for State Financial Aid (WASFA).

Financial aid is available to matriculated students seeking a degree or certification in an eligible program. Most financial aid programs require a minimum of half-time enrollment, which is 6 credits at the undergraduate level and 5 credits at the graduate level. Students who have a first baccalaureate degree and are not admitted to a master's program will be classified as a postbaccalaureate student. Post-baccalaureate students are eligible for federal loans.

Students must apply and be accepted for admission to the university (matriculated) to receive financial aid. Students and their families must complete a Free Application for Federal Student Aid (FAFSA). The application can be completed online at www.fafsa.ed.gov. Paper copies are available in the Financial Aid Office and at most high schools or libraries. If ineligible to file the FAFSA, Washington resident students and their families should submit a Washington Application for State Financial Aid (WASFA) to be considered for Washington State aid programs. The WASFA is available on the web at www.readysetgrad.org/wasfa.

The application should be submitted to the federal processor as soon as possible after October 1 each year. February 1 is the cutoff date for priority consideration for limited gift aid. Accurate preparation of the FAFSA/WASFA and timely response to all requests for additional information or documentation are critical. If you are selected for Verification be sure to get all documents required for verification submitted to the Financial Aid Office by April 1 in order to assure that your Financial Aid, if eligible, will be ready by September.

Students who have been admitted to the university and have listed Central Washington University Title IV code \#003771 on the FAFSA will have a student financial aid file delivered to the university electronically. Once that file has been reviewed and verified, the student will receive an award letter. WASFA applications are also received electronically before being reviewed, verified and awarded aid by the financial aid office.

The award letter will indicate the estimated student budget, the federally determined expected family contribution, and an offer of aid including the type and amount. You must accept, reduce or decline aid offers on MyCWU. Aid is disbursed quarterly in equal amounts. If you have chosen to borrow student loans, the master promissory note and loan entrance counseling are completed electronically at www.studentloans.gov.

Students are expected to maintain "good academic standing" while receiving financial aid. A minimum CWU cumulative GPA of 2.0 is required for undergraduates after two years of attendance; post-baccalaureates are required to maintain a 2.0
cumulative GPA; and a minimum cumulative GPA of 3.0 is required for graduate students. Financial aid recipients are required to make reasonable progress toward a degree.

Additional financial aid information is available in the Financial Aid Office, Bouillon Hall, room 232; and through the Financial Aid Counselors at certain University Centers, at 509-963-1611, financialaid@cwu.edu, or on the CWU Financial Aid home page at www.cwu.edu/financial-aid.

## Scholarships

Scholarships are gift aid, which do not have to be repaid. More information on CWU scholarships can be found at www.cwu.edu/scholarships. The CWU Scholarship Central Application opens each October 1st and closes February 1st, scholarships awarded through this application are for the following academic year beginning in fall quarter. Make sure to apply online through your MyCWU account using the path MyCWU>Financial>Scholarship Application.

Scholarship eligibility is based on a variety of criteria including, but not limited to, academic proficiency, specialized talent, community service, leadership, and financial need. College and departmental selection committees as well as the Financial Aid Office select scholarship recipients. Some scholarships require students to complete the FAFSA (Free Application for Federal Student Aid), www.fafsa.ed.gov or WASFA (Washington State Application for Financial Aid), www.readysetgrad.org/wasfa, and any college or departmental scholarship applications for which the student is eligible that are available in the Financial Aid Office. In addition, students with talent in athletics, art, music, and/or theatre should contact the department(s) directly for specific audition or exhibition opportunities. Institutional merit aid is awarded to incoming students based on GPA and ACT/SAT scores. Need is not always a criteria.

Community-sponsored scholarships include awards for which the recipients are chosen by organizations outside the university. Each organization establishes its own eligibility criteria and application process. More information can be found at the scholarship website www.cwu.edu/scholarships or by contacting the organizations directly. Recipients are to inform the CWU Financial Aid Office if they are receiving an award from a community organization. Checks should be made payable to "Central Washington University." Include student's name and identification number. Send to the CWU Cashiers Office, 400 East University Way, Ellensburg, WA 98926-7495.

Scholarships are considered an educational funding source and may change a student's eligibility in other institutional, state or federal aid programs.

# Academic and General Regulations 

## Academic Advising

All students are expected to seek, and the university is expected to provide appropriate advising resources. These resources include academic advisors for first-year and undecided students, professional and faculty major advisors, online and transfer advisors, special program advisors, career counselors, success courses, workshops, and publications. Academic advising for first-year and undecided students is available at the Exploratory Advising office, located in Hertz 107. Incoming transfer students may contact transferadvisor@cwu.edu to receive initial advising. Professional advising for the Colleges of Arts and Humanities, Sciences, and Education, and Professional Studies is available in the Academic Advising office in Bouillon 205, College of Business advising is located in Shaw Smyser 128. Students pursuing an online major need to email onlineadvisor@cwu.edu to contact their professional advisor. Faculty advisors are available in their respective departmental offices and are also responsible for providing major program advising. Students are encouraged to seek additional academic counsel from various faculty concerning specific areas of interest.

All students are required to meet their assigned academic advisor at the following prescribed points throughout their academic career.

- Every quarter until they have earned over 45 credits. Students will meet with advisors who will assist them with class selection toward major declaration and major admission requirements, as well as appropriate completion of General Education Requirements.
- The quarter after they have earned their 90th credit. Students meet with major advisors to review and discuss major and overall graduation requirements and to develop a degree completion plan.
In addition, students who have not declared their major by the time they have earned their 75th credit or have not completed their Basic Skills General Education Requirements are required to meet with an advisor before they can register for the next quarter.


## Admission to Major

As a student progresses, identification with a major or pre-major program of study becomes necessary for effective advising. Students are required to apply for admission to the program in which they want to major. Application forms are available in department offices or on their department web sites. After completing the form, students should submit it to the department office which administers the major. A major or pre-major advisor will be assigned by the major department at the time a student is admitted into a major or pre-major program.

Students who have earned 75 or more credits and who have not applied and been admitted to a major or pre-major will not be permitted to register for classes until their advisor has removed their advising hold.

Students are bound by the major requirements which became effective with the fall quarter Online Electronic Catalog (OEC)
for the academic year in which they are accepted into their major.

If a student does not enroll for two or more consecutive quarters at Central (excluding summer), he or she will be required to reactivate his or her major status. Unless a student applies for an official leave of absence from the school, reactivation must be done with the concurrence of the department and in accordance with the department and the OEC requirements current at the time of readmission. A leave of absence should be requested, if a student is going to opt-out for more than one quarter (excluding summer) at Central. Leave of absence forms are due to Registrar Services by the end of the quarter prior to the quarter they are requesting their leave. A leave of absence can be granted for up to two consecutive quarters at a time. This will allow the student to be eligible for registration, maintain status in their major, and the student will not have to re-apply for admissions.

## Registration

Currently enrolled students may register for courses by using MyCWU, the web registration system. Registration for new and readmitted students will take place during new student orientation. New students who did not attend orientation may register during the open enrollment period.

Students may change their schedule during the designated change of schedule period as stated in the academic calendar. Students are encouraged to use the MyCWU web registration system to complete all registration transactions.

Registration, in-person, by telephone, or web, obligates students for payment of all tuition and fees. If tuition is not paid by the due date, students will be liable for late fees and for any other reasonable collection costs and charges.

Students are assigned a registration appointment through MyCWU. This designates when the student may start registering for classes for the term. Consult the university calendar at www.cwu.edu/registrar/course-information or contact the university center administration office to determine exact dates for early registration, open enrollment, tuition deadlines, and the change-of-schedule period.

## Fall 2018 Registration

Please note that "credits earned" does not include courses in progress but does include transfer credit that has been posted to your academic record. Please use your MyCWU unofficial transcript, not Academic Requirements report, to determine your total earned credit hours. Non-matriculated students do not qualify for priority registration.

| Priority Registration |  |  |
| :---: | :---: | :---: |
| Date | Day | Category Eligible |
| April 30 | Monday | Disability Support Students (as required by RCW 28B.10.92) |
| May 4 | Friday | Graduating Students |
| May 7 | Monday | Student Support Services/TRIO, STAR/STAR2 (FR/SO) and CAMP Students |
|  |  | Veteran Students (as required by RCW 28B.15.625) |
|  |  | Douglas Honors College Students |
|  |  | Competing Student Athletes (Men's Basketball, Women's Basketball, Men's Cross-Country, Women's Cross-Country, Football, Women's Rugby, Soccer, Volleyball) |
| May 7 | Monday | Graduate Students |
| May 7 | Monday | Post-Baccalaureate Students |
| May 7 - May 9 | Monday Wednesday | Seniors with 135 or more credits earned (use your unofficial transcript to find your total credits) |
| May 9 | Wednesday | Sammamish Running Start Students |
| May 10 - May 14 | Thursday Monday | Juniors with 90-134.99 credits earned (use your unofficial transcript to find your total credits) |
| May 15 - May 18 | Tuesday - Friday | Sophomores with 45-89.99 credits earned (use your unofficial transcript to find your total credits) |
| May 21 - June 1 | Monday - Friday | Freshmen with 0-44.99 credits earned (use your unofficial transcript to find your total credits) |
| August 1 | Wednesday | Open Enrollment |

## Winter 2019 Registration

Please note that "credits earned" does not include courses in progress but does include transfer credit that has been posted to your academic record. Please use your MyCWU unofficial transcript, not Academic Requirements report, to determine your total earned credit hours. Non-matriculated students do not qualify for priority registration.

| Priority Registration |  |  |
| :---: | :---: | :---: |
| Date | Day | Category Eligible |
| October 29 | Monday | Disability Support Students (as required by RCW 28B.10.92) |
| November 2 | Friday | Graduating Students |
| November 5 | Monday | Student Support Services/TRIO, STAR/STAR2 (FR/SO) and CAMP Students |
|  |  | Veteran Students (as required by RCW 28B.15.625) |
|  |  | Douglas Honors College Students |
|  |  | Competing Student Athletes (Men's Basketball, Women's Basketball, Men's Cross-Country, Women's Cross-Country, Football, Women's Rugby, Soccer, Volleyball) |
| November 5 | Monday | Graduate Students |
| November 5 | Monday | Post-Baccalaureate Students |
| November 5 November 6 | Monday -Tuesday | Seniors with 135 or more credits earned (use your unofficial transcript to find your total credits) |
| November 7 | Wednesday | Sammamish Running Start Students |
| November 7 - <br> November 9 | Wednesday Friday | Juniors with 90-134.99 credits earned (use your unofficial transcript to find your total credits) |
| November 13 - <br> November 16 | Tuesday - Friday | Sophomores with 45-89.99 credits earned (use your unofficial transcript to find your total credits) |
| November 19 November 29 | Monday Thursday | Freshmen with 0-44.99 credits earned (use your unofficial transcript to find your total credits) |
| December 10 | Monday | Open Enrollment |

## Spring 2019 Registration

Please note that "credits earned" does not include courses in progress but does include transfer credit that has been posted to your academic record. Please use your MyCWU unofficial transcript, not Academic Requirements report, to determine your total earned credit hours. Non-matriculated students do not qualify for priority registration.

| Priority Registration |  |  |
| :---: | :---: | :---: |
| Date | Day | Category Eligible |
| February 4 | Monday | Disability Support Students (as required by RCW 28B.10.92) |
| February 8 | Friday | Graduating Students |
| February 11 | Monday | Student Support Services/TRIO, STAR/STAR2 (FR/SO) and CAMP Students |
|  |  | Veteran Students (as required by RCW 28B.15.625) |
|  |  | Douglas Honors College Students |
|  |  | Competing Student Athletes (Men's Basketball, Women's Basketball, Men's Cross-Country, Women's Cross-Country, Football, Women's Rugby, Soccer, Volleyball) |
| February 11 | Monday | Graduate Students |
| February 11 | Monday | Post-Baccalaureate Students |
| February 11 - February 13 | Monday Wednesday | Seniors with 135 or more credits earned (use your unofficial transcript to find your total credits) |
| February 13 | Wednesday | Sammamish Running Start Students |
| February 14 - February 19 | Thursday Tuesday | Juniors with 90-134.99 credits earned (use your unofficial transcript to find your total credits) |
| February 20 - February 26 | Wednesday Tuesday | Sophomores with 45-89.99 credits earned (use your unofficial transcript to find your total credits) |
| February 27 - March 7 | Wednesday Thursday | Freshmen with 0-44.99 credits earned (use your unofficial transcript to find your total credits) |
| March 18 | Monday | Open Enrollment |

## Summer 2019 Registration

Please note that "credits earned" does not include courses in progress but does include transfer credit that has been posted to your academic record. Please use your MyCWU unofficial transcript, not Academic Requirements report, to determine your total earned credit hours. Non-matriculated students do not qualify for priority registration.

## Priority Registration

| Date | Day | Category Eligible |
| :---: | :---: | :---: |
| April 25 | Thursday | Disability Support Students <br> (as required by RCW 28B.10.92) |
| April 26 | Friday | Graduating Students |
| April 29 | Monday | Open Enrollment |

## Academic Credit Hour

The rule for determining academic credit is: one credit represents a total time commitment of three hours each week of the quarter. A regular load of 15 credits requires 45 hours of work per week. The total time includes class time, studying, conferring with the instructor, writing, performing laboratory work, exercising, or performing any other activity required of students. A minimum of 180 credits is required for an undergraduate bachelor's degree.

CWU operates on a quarter system and grants quarter credit. Some colleges operate on a semester basis (i.e., divide the academic year into two parts, exclusive of summer) and give semester credits. Quarter credits can be multiplied by two-thirds to determine equivalent semester credits. Semester credits can be multiplied by one-and-one-half to determine equivalent quarter credits.

## Course Numbering and Class Standing

Courses are numbered sequentially from 100 through 700. Those numbered 100 are pre-collegiate and credits in such courses are not accepted toward meeting degree requirements or calculated in the student's grade point average. Undergraduate courses are numbered 101 through 499 and graduate courses are numbered 501 and above. Courses numbered 500 are professional development courses and are not accepted toward meeting degree requirements.

## Lower Division

Freshman 101 through 199
Sophomore 200 through 299

## Upper Division

Junior 300 through 399
Senior 400 through 499
Students may enroll in courses one year ahead of their present status except when otherwise specified in the course description. A student's class standing is determined by the number of credits earned and/or accepted upon transfer. The following table lists the credits required for each class standing:

Freshman 0-44.9
Sophomore 45-89.9

## Senior 135 or more

Students holding bachelor's degree and pursing a second degree or CWU certification program are considered postbaccalaureate. Students that are admitted to a master's degree program are considered graduate students. Satisfying undergraduate graduation requirements depends not only on the number of credits completed (a minimum of 180), but also on completion of all other degree $/$ major $/$ minor requirements.

## Student Study Load

Full-time and part-time students are determined by the number of credits for which they register. Full-time undergraduate is 12 credits or more. Three-quarter time undergraduate is 9-11 credits. One-half time undergraduate is $6-8$ credits. Full-time graduate is 10 or more credits. One-half time graduate is 5-6 credits.

Students are encouraged to enroll in 15 credits or more each term to ensure timely progress toward degree. Please discuss your degree completion timeline with your academic advisor.

## Undergraduate:

15 credits - Standard undergraduate load
18 credits or fewer - No permission required
19-20 credits - Major advisor and major department chair approval required, or Advising Center for undeclared majors.
Over 21 credits - Major advisor and major department chair approval as well as the appropriate college dean.
A cumulative GPA of 2.8 or higher is required for students seeking an overload.

## Graduate:

15 credits - Normal graduate load
16 credits or less - No permission required
17-19 credits - Major department chair or dean approval required
20 or more credits - Dean of Graduate Studies and Research approval required

## Proficiency Requirements

Students will be assessed for placement into ENG 101 and MATH 101 and above upon entering CWU. Students with deficiencies in English usage/reading or mathematical computation must correct them prior to enrolling in ENG 101 or MATH 101 and above. Students should review requisites for courses listed in the catalog. Not having the appropriate pre- or co-requisite may result in being disenrolled.

## Seniors in Graduate Courses

Seniors may enroll in graduate-level courses (501 and above) with the approval of both the instructor of the course and the department chair. Credit earned in these courses may meet undergraduate or graduate program requirements, but not both. Students wishing to designate the course for graduate credit must obtain approval from the dean of Graduate Studies and Research.

## Auditing a Course

Students eligible to enroll in a course for credit may enroll as an auditor provided space is available and permission is secured from the instructor prior to registration. To receive credit for an audited class, students must enroll for credit in and repeat the samencourse in 98ubseguent quarter. Students are assessed full tuition for audited courses. Instructors may not compel auditors to write papers or take examinations, but may insist upon other course requirements. Instructors may request that the college dean withdraw the auditor from the course if these requirements are not met. Students receive neither credit nor grades for audited courses. Course participation requirements are set by the faculty member responsible for the course.

## Concurrent Enrollment

Credit for work taken while simultaneously enrolled at CWU and other educational institutions may be transferred to Central. Any student who has obtained an F-1 visa from CWU must obtain permission from the executive director of the Office of International Studies and Programs (or designee) prior to enrolling in any other institution.

## University Catalog

The Official Electronic Catalog (OEC) is the university's compilation for all curriculum. Undergraduate catalogs are valid for five years, and may be found at www.cwu.edu. A student should expect to complete general education requirements as listed in the OEC current at the time of first enrollment at either Central or a community college in the state of Washington (provided he or she transfers directly to CWU from the community college and has not attended another four-year institution). The student should also expect to meet the specific requirements of the departments for majors and minors in the OEC current at the time he or she is accepted by the department into the major or minor program.

Graduate students admitted to the master's degree program may use the catalog they are admitted under or the current one.

## Leave of Absence

Students will automatically be granted one term leave of absence for fall, winter or spring quarter without reapplying for admission as long as they were enrolled in the previous academic term. A student may petition for consecutive terms of leave by submitting a leave of absence form to Registrar Services. The request may be granted if the following conditions are met:

1. The petition must be submitted at least two weeks prior to the start of the term for which the student is seeking leave.
2. The petition demonstrates that attendance would present an exceptional hardship or loss of opportunity for the student.

Students who are on leave are permitted to register for classes as continuing students at the designated time.

A student who attends another college or university while on a leave of absence must submit an official transcript from the school by the end of the term in which they return to CWU.

## Graduate students need to contact the Graduate Studies office at 509-963-3103 for leave of absence information.

## Withdrawal from a Course

Peremptory (uncontested) withdrawals will not be permitted after the first six weeks of instruction. Students who withdraw after the change of schedule period from 25 percent or more of the coursework for which they have registered for two or more quarters each academic year are subject to dismissal. Students who have been dismissed under this policy may not enroll for courses without submitting an approved plan of study signed by an academic advisor to the Office of the Provost/ Vice President for Academic and Student Life. To continue enrollment, the student must satisfactorily complete all credits enrolled during the first quarter of readmission. Students who do not meet this requirement will not be allowed to register for one calendar year.

Peremptory withdrawals will be noted on the student's transcript with " +W, " but are not calculated into the student's grade point average. Students who are considering an uncontested withdrawal should consult the Financial Aid Office as it may affect the student's satisfactory academic progress for financial
aid. Class rosters will reflect the +W for students who have used their peremptory withdrawal.

Withdrawals after the sixth week of instruction will be granted only for reasons of hardship and then only upon written petition to and written approval by the registrar. The student must contact the course instructor and obtain the faculty member's signature on the hardship withdrawal petition. The signature serves merely to acknowledge the petition and implies neither support nor rejection of the request. The registrar may consult with affected faculty when evaluating a petition and will notify the instructor if the hardship withdrawal has been approved. Hardship withdrawals will be noted on the student's transcript with an "HW" (hardship withdrawal). Hardship withdrawals from individual courses will not be permitted during or after the final examination period.

Conversions of incompletes to withdrawals must be petitioned as if they were hardship withdrawals. They may be changed only upon petition to the registrar. Withdrawals will not be included in calculating grade point averages. There are no tuition refunds in cases of withdrawal from individual courses.

## Complete Withdrawal from the Academic Term

A student may withdraw from the academic term for reasons of illness or other extenuating circumstances at any time prior to finals week. An official withdrawal form is available at Registrar Services or university center offices. A student may not withdraw from the university during finals week except with approval of the registrar. A complete withdrawal from the university will be noted on the student's transcript with a "W" and will not affect the student's grade point average. The registrar will notify affected faculty members when a student has withdrawn from the university. Students who plan to leave the university must complete the official withdrawal form and may need to have an exit interview. Failure to do so may result in failing grades. There is no refund of tuition and fees if total withdrawal occurs after the 30th calendar day of the beginning of the quarter. See refund policy for specific details.

## Military Exigency Withdrawal

Students who have been called into military service of the United States due to a national emergency will be eligible for withdrawal from the university or the granting of credit. The policy does not apply to regular National Guard or Reserve duty or to annual active-duty requirements.

- Students who must withdraw from the University during the first third of the quarter will be granted a total University withdrawal (W).
- Students who must withdraw from the university during the second third of the quarter may request either an uncontested withdrawal $(+W)$ or an incomplete (I) in each course with specified deadline for completion to be determined by the dean in consultation with the instructor or a total university withdrawal from all courses (W).
- Students who must withdraw from the university during the last third of the quarter may request an uncontested withdrawal ( +W ) or an incomplete (I) or credit if the coursework is satisfactory, to be determined by the dean in consultation with the instructor or a total university withdrawal from all courses (W). If credit is awarded, the instructors must report either a letter grade or a satisfactory ( S ) for each
course depending upon the quality of the student's work. If credit is received and the course(s) complete(s) all requirements for the baccalaureate degree, the degree will be awarded.
- Students being called to active duty will be placed on a leave of absence until their return, at which time they will be reactivated, so they will not need to reapply to the university or pay the application fee. Students should contact Registrar Services when they are ready to return to Central to ensure a smooth transition.
- In all circumstances, students will be expected to attend classes up to fifteen (15) calendar days prior to induction.
- Students need to contact Registrar Services or their university center office as soon as possible to complete the appropriate paperwork, and to submit a copy of the Federal Activation Orders.


## Grading Policies and Regulations

"Grade Points" are assigned to each grade as follows:

| Letter Grade | GPA Credit | Transcript Explanation | Definition of letter grade/Policy statement |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { A } \\ & \text { A- } \end{aligned}$ | $\begin{aligned} & 4.0 \\ & 3.7 \end{aligned}$ | Excellent | Meets all objectives of the course and fulfills all requirements; performs at a level that reflects excellence |
| $\begin{aligned} & \text { B+ } \\ & \text { B } \\ & \text { B- } \end{aligned}$ | $\begin{aligned} & 3.3 \\ & 3.0 \\ & 2.7 \end{aligned}$ | Good | Meets all objectives of the course and fulfills all requirements; performs at a high level |
| $\begin{aligned} & \text { C+ } \\ & \text { C } \\ & \text { C- } \end{aligned}$ | $\begin{aligned} & 2.3 \\ & 2.0 \\ & 1.7 \end{aligned}$ | Satisfactory | Meets all objectives of the course and fulfills all requirements; performs at a satisfactory level |
| $\begin{aligned} & \text { D+ } \\ & \text { D } \\ & \text { D- } \end{aligned}$ | $\begin{aligned} & 1.3 \\ & 1.0 \\ & 0.7 \end{aligned}$ | Marginal Pass | Makes progress toward meeting the course objectives; fulfills course requirements at a substandard level |
| F | 0 | Failure | Fails to meet the course objectives; does not fulfill course requirements |

The following symbols are also used. No "grade points" are assigned.

| CR | Credit |
| :--- | :--- |
| NC | No Credit |
| S | Satisfactory |
| U | Unsatisfactory |
| AU | Audit |
| W | Complete withdrawal from |
|  | The university |
| + W | Uncontested withdrawal from |
|  | A course |
| HW | Hardship withdrawal from |
|  | A course |
| I | Incomplete |
| IP | In Progress |
| NR | No grade reported |
| NS | No show |

## All grades are frozen upon award of degree.

Financial aid may be affected by certain grades and/or grading symbols. It is incumbent upon students to be aware of the impact of all grades on their financial aid. Financial aid information policies are available from the Financial Aid Office.

## Incomplete Grade

The "I" grade is used when the student was not able to complete the course by the end of the term, but has satisfactorily completed a sufficient portion of it and can be expected to finish without having to re-enroll in it. The instructor will designate what a student must do to complete the course and set a specific date up to one calendar year for the completion of the coursework.

If the work is not completed within one (1) calendar year from the last day of the quarter in which the "I" was received, the registrar will automatically convert the "I" to an "F." However, instructors may require the work to be completed prior to the end of the calendar year. In these cases the registrar will convert the grade according to the date indicated by the instructor. It is the student's responsibility to contact the professor and make arrangements to complete the course.
To earn a grade, the student must complete the work for the course as prescribed by the instructor by the indicated date on the incomplete. Students may not re-register for a course in which they receive a grade of incomplete.

All incomplete changes exceeding the one calendar year limit, including extensions, must be submitted by the instructor to Registrar Services for approval.

## In-progress Grade

For undergraduate students, the "IP" grade is used when the student was not able to be evaluated by the end of the term, usually because instruction is not yet completed. "IP" is used for special circumstances within programs such as aviation, international studies, and cooperative education.
For graduate students, "IP" is used for thesis, and project study, that normally extend beyond a single term.
All uses of the "IP" grade must be submitted to and approved by the registrar. A letter grade is issued when the course is completed and recorded by the registrar, upon receipt of the Change of Grade form submitted by the instructor. If a grade is not submitted to the registrar within one calendar year, the "IP" will automatically be changed to " F " by the registrar.

## Grade Point Average

Grade point averages will be calculated by dividing grade points earned by the credit hours attempted. Here is a typical example:

| Course | Credit <br> Hours | Grade | Grade Points <br> Earned |
| :--- | :--- | :--- | :--- |
| MUS 104 | 3 | C+ | $3 \times 2.3=6.9$ |
| HIST 143 | 5 | B- | $5 \times 2.7=13.5$ |
| PSY 300 | 5 | C | $5 \times 2.0=10.0$ |
| COM 207 | 4 | B | $4 \times 3.0=12.0$ |
| Totals | $\mathbf{1 7}$ |  | $\mathbf{4 2 . 4}$ |
| Divid |  |  |  |

Dividing 42.4 by 17 gives a grade point average of 2.49. In computing cumulative grade point averages, only work attempted at Central will be included in the computation. Within the major, minor, and professional education option, grades earned in all allowed courses are used. Credits earned at other
institutions are accepted in meeting degree requirements according to the limits described under bachelor's degree requirements. Graduation with distinction honors shall be based on the GPA of all credits earned at Central and all transfer credits accepted by CWU.

## Credit/No Credit Option

Students are urged to use the credit/no credit option as a way to explore academic areas of interest. All students except firstquarter freshmen and students on academic probation may select one class per quarter under this option. A maximum of 15 credits earned in credit/no credit courses may be allowed toward the 180 required for the bachelor's degree.

The courses must be selected from free electives; they must not be courses counting towards the students general education, major or minor concentrations, or the professional education sequence. Students may designate the course as credit/no credit until the end of the change of schedule period. Courses may not be repeated on a credit/no credit option.

Credits earned under the credit/no credit options are not included in computing the grade point average. The grade recorded on the student's transcript will be "CR" if the course grade is C - or above; if below C -, the entry will be "NC."

## Statute of Limitation on Grade Changes

Grade changes may be filed until the end of the quarter following the one in which they were recorded. Spring quarter grades may be changed until the end of the fall quarter.

## Grade Reports

A report of the final grades assigned in courses will be available on MyCWU at the end of each quarter. Students may request a hard copy be mailed by contacting Registrar Services or their university center office.

## Honor Roll

Undergraduates who achieve a grade point average of 3.5 or higher will be placed on quarterly honor roll. To be eligible, a student must complete a minimum of 12 graded credits in the quarter earned. Central will provide honor roll recipient names to student's hometown based on the student's permanent address listed on MyCWU at the end of the quarter. If a student has placed a FERPA directory restriction on their record through MyCWU, the hometown newspaper will not be notified of his/her honor roll status. Post-baccalaureate and master students are not eligible for the honor roll. The honor roll status is listed on the student's unofficial transcript and is posted two to three weeks after grades are due on the web located at www.cwu.edu/registrar/honor-roll.

## Grade Appeal Procedure

Students who believe they have been improperly graded should first attempt to resolve the matter with the instructor. If resolution is not achieved, the student may appeal the grievance to the department chair. Failing resolution at that level, the grievance may be submitted to the college dean. Finally, if the grievance is not resolved at the dean level, the student may petition for a hearing with the board of academic appeals. For details, contact the Office of Student Success in Bouillon Hall, room 204 or by calling 509-963-1515.

## Repetition of Courses

Some CWU courses are approved for repetition with credit awarded each time the course is taken and passed. Such approval is indicated in the course description in the university
catalog. Full tuition is assessed for all repeated courses. Other courses may be repeated under the following conditions:

- Students are allowed to take a course a second time without restriction. Students attempting to take the same course a third time may do so only with permission of the course instructor and the department chair. Unless otherwise designated as repeatable, courses may not be taken more than three times without permission of the dean of the college and department chair.
- Credit will be awarded only once, including credit for transfer courses that are repeated at Central.
- When a course is repeated, only the last grade earned will be used in the computation of the cumulative and major grade point averages. All grades will remain in the student's official record.

Any CWU course repeated at another institution is subject to the following requirements:

- May be transferred in for CWU credit.
- Will be used in calculating both the CWU and the transfer GPA.


## Scholastic Standards

Academic standards are established by the faculty. The Dean of Student Success has responsibility for implementing these standards. A student's academic standing appears on the quarterly grade report or unofficial transcript located on MyCWU. Questions about academic standing should be directed to the Office of Student Success (Bouillon Hall, room 204).

Good Standing: A student is in good standing when both the quarterly and cumulative grade point averages (GPA) are 2.0 or higher.

Academic Warning: A student who has been in good standing will be placed on academic warning when the GPA for the previous quarter is below 2.0.

Academic Probation: A student who has been on academic warning will be placed on academic probation if either the quarterly or cumulative GPA is below 2.0.

Academic Suspension: A student who has been on academic probation will be placed on academic suspension if the GPA for the previous quarter is below 2.0. If the GPA for the previous quarter is 2.0 or above, but the cumulative GPA remains below 2.0, the student will remain on academic probation.

Immediately after grades are submitted, the dean of student success or designee(s) reviews the academic files of all suspended students and makes one of three decisions:

- The student may be allowed to register for one more quarter with an academic standing of probation.
- The student may be allowed to submit an academic appeal presenting: (a) reasons for poor academic performance, (b) explanation and documentation of circumstances beyond the student's control which adversely affected the student's performance during the preceding quarter(s), and (c) an academic success plan which clearly outlines what the student will do differently to achieve academic good standing, should $\mathrm{s} /$ he be reinstated. The committee will hear the
student's case and may decide to allow the student to enroll for one more quarter on academic probation.
- The student may be denied enrollment for one year, following which the student will need to re-apply for admission to the university; however, readmission is not guaranteed.

A letter will be sent to the student informing him or her of the committee's decision.

## Academic Forgiveness

An undergraduate student may petition the registrar in writing for academic forgiveness if all of the following criteria are met:
a. The student returned to CWU after an absence of at least five years;
b. The student's CWU cumulative GPA at the time of leaving CWU was below 2.0 ; and
c. The student has earned at least a 3.0 GPA in at least 45 credits since returning to CWU.
If academic forgiveness is granted, the previous credits and grades at CWU will remain on the student's transcript but will not be used in the calculation of the cumulative GPA, and the student will be placed on good standing. Only the grades earned since returning to CWU will be used in computing the CWU cumulative GPA.
The student may request a review of the registrar's decision by the board of academic appeals and academic standing. A petition for academic forgiveness may be granted only once. Unless academic forgiveness is granted, the GPA at CWU will include all CWU grades for all courses. The forgiveness policy does not extend to calculating GPA of major or to honors.

## Class Attendance and Participation

Instructors may require regular class attendance. The first day of the quarter is the first day of instruction listed in the university calendar. An instructor may drop a student from the class by notifying the registrar if the student has failed to attend the class by the end of the third day of the quarter or the first class meeting if the class does not meet during the first three days of the quarter. Students enrolled in web courses should make a post on the learning management system within the first three days of classes to ensure they are not dropped for non-attendance. Students are responsible for checking their schedules by the fifth day of instruction or the end of the change of schedule period to ensure their class schedule is correct.

A student who does not meet course prerequisites may be required to drop the course. Instructors are not required to offer makeup work for missed classes, including those missed during the change of class schedule period, regardless of student course enrollment status.

Sponsors of university-approved activities requiring absence from campus will prepare and sign an official list of the names of those students who plan to be absent. It is each student's responsibility to present a copy of the official list to the appropriate instructors and make arrangements prior to the absence(s). Instructors are strongly encouraged to make accommodations.

Members of the university community directing or arranging such activities must adhere to the following guidelines:
a. Scheduling of such activities shall not overlap with official final examination periods.
b. Scheduling of such activities shall not require an absence of more than three (3) consecutive class days.
c. Scheduling of such activities shall be announced to the students' far enough in advance for them to plan to fulfill course requirements.
d. Seeking permission for an exception lies with the sponsor and not with the student(s).

## Student Bereavement Leave

In the event that a student experiences a death of an immediate family member or relative as defined below, the student will be excused from class for funeral leave, subsequent bereavement, and/or travel considerations. The student will provide appropriate documentation and arrange to complete missed classroom work as soon as possible according to the process outlined below.
Upon notification of the absence and proper documentation, each faculty member shall excuse the student from class according to this policy and provide an opportunity to complete missed exams, quizzes, and other required work. Ultimately, the student is responsible for all material covered in class and must consult with each individual professor as soon as they return to complete any required work.

## (A) Excused Absences

1. Immediate Family and Relatives. Students shall be eligible for up to five (5) consecutive days (not including weekends or holidays) or excused absence in the event of a death of a spouse, domestic partner, parent, child, grandparent, grandchild or sibling.
2. Other. In the event that a death occurs to a family member or friend that does not qualify as an immediate family or relative above, students can communicate the circumstances to individual faculty to determine on a case by case basis if it is covered by this policy.

## Athletic Participation

Central Washington University athletics is governed by the rules of the NCAA Division II and the Great Northwest Athletic Conference. Further information on those rules is available through the Athletic Office, or the office of the faculty athletic representative. University academic requirements for participation require the student athlete to meet the requirements of those athletics organizations as well as:

- Maintain a 2.00 a cumulative grade point average at all times
- Not be in probation status
- All incoming freshmen and transfer students must complete HED 205 - Drugs and Sport by the end of their third year (or junior status) in order to remain eligible for participation in varsity sports.


## Course Challenge (Credit by Examination)

Under certain circumstances the university may award credit based on course challenges and other prior learning assessments. Matriculated students, enrolled in one or more course, may challenge any course which appears on the current course challenge list.
The following rules apply:

- A Course Challenge Prior Learning Assessment (Credit by Examination) application form, must be completed. This application form is available in the Registrar Services Office.
- A fee of $\$ 15$ per credit, with a minimum of $\$ 30$ per course, will be charged to the student's account and must be paid at the Cashiers Office.
- The challenge is conducted according to procedures established by the appropriate department.
- A list of department-approved courses which may be challenged will be maintained by Registrar Services.
- Special courses such as "individual study," "special topics," "cooperative education," and "seminars" may not be challenged for credit.
- The result of the course challenge is recorded as "S" or "U" on the transcript and is not used in computing grade point average.
- The application to challenge a course will be denied if credit for the course has been received previously at this or another college, the course was previously failed, the student previously withdrew from the course, the course was previously unsatisfactorily challenged, the course was previously audited, or if registration was canceled.
- Credits earned by course challenge or prior learning assessment will not be allowed toward meeting the residence study requirements by the university.
- Graduate students who have been admitted to a graduate program must obtain permission from the dean of Graduate Studies and Research, their advisor and the course instructor for course challenge.


## Course Challenge List

Special courses such as Individual Study, Special Topics, Cooperative Education, Workshops, and Seminars may not be challenged for credit.
Accounting: no courses are offered for challenge
Aerospace Studies: no courses are offered for challenge
Administrative Management: 201 and 271
Anthropology: all undergraduate courses with chair's approval
Art: all undergraduate courses with chair's approval, except 101
Aviation Management and Aviation Professional Pilot: all courses with departmental approval
Biological Sciences: no courses are offered for challenge
Chemistry: no courses are offered for challenge
Communication: no courses are offered for challenge
Computer Sciences: all undergraduate courses with chair's approval
Early Childhood Education: no courses are offered for challenge Economics: no courses are offered for challenge
Education: all undergraduate courses with chair's approval
English: no courses are offered for challenge
Engineering Technologies, Safety, and Construction: all
undergraduate courses with chair's approval
Environmental Studies: no courses are offered for challenge
Ethnic Studies: all 100 and 200 level courses with the director's
approval
Family and Consumer Sciences: ATM 280
Finance: no courses are offered for challenge
Geography: no courses are offered for challenge
Geology: no courses are offered for challenge
Health Education: HED 101
History: 101, 102, 103, 143, and 144
Humanities: 101, 102, and 103
Information Technology: 101, 228, 248, 258

Law and Justice: no courses are offered for challenge Management: no courses are offered for challenge Mathematics: all undergraduate courses numbered above 170 Military Science: all 100 and 200 level courses.
Music: all undergraduate courses except applied lessons, class lessons, and performing groups
Nutrition: NUTR 101, 240, 240LAB, 340, 340LAB, 345, 440,
$440 \mathrm{LAB}, 442,443,444,445,446,447$, and 448
Paramedics: EMS 245, 250, 440, 441, 443, 444, and 451
Philosophy: all undergraduate courses
Physics: no courses are offered for challenge
Political Science: no courses are offered for challenge
Psychology: all undergraduate courses with the chair's approval Recreation and Tourism: no courses are offered for challenge
Religious Studies: all undergraduate courses
Safety Education: no courses are offered for challenge
Social Science: no courses are offered for challenge
Sociology: all 100 and 200 level courses with the chair's approval
Theatre Arts: no courses are offered for challenge
World Languages: all undergraduate courses with chair's approval

## Course Substitutions

Students may petition the degree granting department chair if they wish to substitute courses within degree requirements. The course(s) used for substitution must satisfy the programmatic goals and objectives of the department as determined by the dean and the department chair. The substituted course(s) credits may not reduce the total required credits. Permit to Substitute form can be obtained from Registrar Services or online.

## Academic Appeal

Students should be aware that procedures have been established to hear complaints regarding academic matters. The board of academic appeals exists to guarantee due process for academic grievances involving students, faculty, staff, and administrators. The academic appeals policy is established by the faculty senate and is administered by the Dean of Student Success.

## Required Participation in Assessment Activities

Students are required to participate in assessment activities at several points during their academic careers. They will be assessed for placement into English 101, Math 101, and above upon entering CWU as first-year students. Students with deficiencies in English usage/reading or computation must correct them prior to enrolling in ENG 101 or MATH 101 and above, respectively. Departments may establish their own requirements as long as they meet or exceed university standards. Departments may also require students with deficiencies to correct them before being accepted into their major.

Unless otherwise stated, all courses at CWU are taught in English.

Once accepted, international students may be evaluated by the ESL staff to determine whether additional English-as-a-SecondLanguage coursework will be required during attendance at CWU.

Students will participate in an assessment of intended student outcomes of the general education program. End-of-major assessments are required prior to graduation.

## Qualifying Minimum Placement Test Scores

## ENGLISH

|  | OLD SAT | NEW SAT <br> WT and RT | $\begin{aligned} & \text { NEW SAT } \\ & \text { ERW } \end{aligned}$ | ACT | Accuplacer | Compass | Smarter Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { English } \\ & \text { 100T } \end{aligned}$ | $<500$ | Writing Test $<26$ Or Reading Test $<27$ | EvidenceBased Reading and Writing <560 | $<19$ | Reading 85 or below Or <br> WritePlacer 4 or below | X | X |
| English 101 | 500 or higher | Writing and <br> Language <br> Test: 26 or <br> higher <br> And <br> Reading Test: <br> 27 or higher | EvidenceBased Reading and Writing 560 or higher | English 19 or higher | Reading Comp: 86 or higher <br> And <br> WritePlacer: 5 or higher | $\begin{gathered} \text { E-Write }>8 \\ \text { and } \\ \text { Reading }>88 \end{gathered}$ | 3+ |

MATH

|  | Pre-Req | SAT <br> Pre-2016 | SAT | SAT | ACT | Smtr <br> Bal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Math Section | Math Test |  |  |
| Math 100A |  | $<400$ | 439 and below | X | $<16$ | X |
| Math 100B | Math 100A | $400-499$ | $440-529$ | X | $16-18$ | X |
| Math 100C* | Math 100B | $500^{*}$ | $530^{*}$ | $26.5^{*}$ | $19^{*}$ | $3^{*}$ |
| Math 101 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Math 102 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Math 130 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Econ 130 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Fin 174 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Math 153 | Math 100C | X | X | X | X | X |
| Math 154 | Math 153 | X | X | X | X | X |
| Math 164 | Math 100B | 500 | 530 | 26.5 | 19 | 3 |
| Math 170 | Math 153 | X | X | X | X | X |
| Math 172 | Math 154 | X | X | X | X | X |

* Students must see an advisor for permission to enroll in this course.

|  | Pre-Req | Accuplacer | COMPASS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Pre-Alg | Alg | Coll Alg | Trig |
| Math 100A |  | Arithmetic less than 75 | X | X | X | X |
| Math 100B | Math 100A | Arithmetic 75-99 | X | X | X | X |
| Math 100C* | Math 100B | *Elementary Algebra 60+ OR Arithmetic 100+ | 50 | $26^{*}$ | $31^{*}$ | $31^{*}$ |
| Math 101 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| Math 102 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| Math 130 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| Econ 130 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| Fin 174 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| Math 153 | Math 100C | Elementary Algebra 85+ OR College Math 35+ <br> or higher | X | 66 | 31 | 31 |
| Math 154 | Math 153 | College Math 65+ or higher | X | X | 46 | 31 |


| Math 164 | Math 100B | Elementary Algebra 60+ OR Arithmetic 100+ | 50 | 26 | 31 | 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Math 170 | Math 153 | College Math 65+ or higher | X | X | X | X |
| Math 172 | Math 154 | College Math 100+ or higher | X | X | X | 46 |

* Students must see an advisor for permission to enroll in this course.

|  | Pre-Req | MPT |  | ALEKS | High School |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Gen | Adv | Gen |  |
| Math 100A |  | X | X | $<30 \%$ |  |
| Math 100B | Math 100A | X | X | $30 \%$ |  |
| Math 100C | Math 100B | 148 | 145 | $46 \%$ | lyr calculus with B average |
| Math 101 | Math 100B | 148 | 145 | $46 \%$ | lyr calculus with B average |
| Math 102 | Math 100B | 148 | 145 | $46 \%$ | lyr calculus with B average |
| Math 130 | Math 100B | 148 | 145 | $46 \%$ | 1 yr calculus with B average |
| Econ 130 | Math 100B | 148 | 145 | $46 \%$ | 1 yr calculus with B average |
| Fin 174 | Math 100B | 148 | 145 | $46 \%$ | 1 lyr calculus with B average |
| Math 153 | Math 100C | 148 | 145 | $51 \%$ | 1 yr calculus with B average |
| Math 154 | Math 153 | X | 150 | $61 \%$ | X |
| Math 164 | Math 100B | 148 | 145 | $46 \%$ | lyr calculus with B average |
| Math 170 | Math 153 | X | X | $61 \%$ | X |
| Math 172 | Math 154 | X | 152 | $76 \%$ | X |
| Str |  |  |  |  |  |

[^1]
## Graduation Requirements

Students are eligible for awarding of a bachelor's degree when they fulfill the following requirements.

## Credits

- A minimum of 180 quarter credits is required for a baccalaureate degree; students should note, however, that some bachelor's degrees have requirements in excess of 180 credits. Central allows a maximum of 135 quarter ( 90 semester) credits to transfer from regionally accredited four-year institutions, including no more than 105 quarter ( 70 semester) credits of lower division (100-200 level) coursework from a regionally accredited community or technical college. Additional coursework that exceeds this amount may be used to meet specific requirements, but additional credits will not be allowed to count toward the 180 credit requirement for graduation.
- A minimum of 60 credits of upper-division study is required. Upper-division courses are numbered 300 and 400 . Credits earned in study at the lower division (courses numbered 100-299) will not be allowed toward meeting this requirement.
- Students must study on the university campus, through CWU online course, or at an established university center at least three quarters and earn a minimum of 45 credits. Credits earned through industrial experience, military experience, or through credit by examination may not be used to meet residency requirements.
- Up to 45 credits may be counted from course challenge or other prior learning assessments.
- Transfer students must earn a minimum of 10 credits in the major and, if a minor is declared, 10 credits in the minor from CWU.
- Cooperative education courses will apply toward graduation requirements, but in no case will a student be allowed to count more than 10 credits at the 290 level nor more than 20 total credits toward graduation requirements. No more than 10 credits are accepted in transfer. No more than eight credits may be applied to a graduate degree. Cooperative education courses may be repeated if field experience learning objectives and activities are distinctly different from previous work or field experience.
- Students who have accumulated 210 or more credits and intend to complete a double major or double degree, and have not yet completed either program, must meet with both department advisors and submit one graduation plan signed by both department chairs and both major advisors to Registrar Services. This also applies to double majors in different colleges. If one major has been completed, only the advisor and the department chair for the uncompleted major need to review and sign the petition.
- Students who have accumulated 210 or more credits and intend to include one or more minors in their
academic plan are required to obtain the approvals of their major and minor advisor.


## Degree Components

- The general education program must be completed as defined in the university catalog.
- Students transferring from Washington State community colleges holding the appropriate academic direct transfer associate degree will have met the general education program requirements.
- Completion of all requirements for a major as specified by the appropriate department, as defined in the university catalog, is required.
- Completion of a minor is required when the major is less than 60 credits. In that case the total credits of the major and minor must total a minimum of 60 credits.
- All professional education programs require completion of professional education courses in addition to completion of the major requirements.
- A student may be awarded more than one baccalaureate degree (BA, BAEd, BFA, BMUS, BS) at the same time provided that requirements of both the degree programs have been completed. Double majors within the same baccalaureate program do not constitute separate baccalaureate degrees. In disciplines offering multiple baccalaureate degrees with identical or similar names, e.g., BA or BS in Biology, only one degree will be awarded. Exceptions to this policy require approval by the department chair and the appropriate dean.
- Successful demonstration of writing and computational skills is required for graduation.
- Students who enter Central Washington University with 45 or fewer credits must complete UNIV 101 Student Success Seminar. Students must enroll in UNIV 101 during their first quarter at CWU.
- University General Education Policy requires that students have completed either two-years of the same foreign language, Native American language, or American Sign Language in high school, or one year of college-level foreign language. If this requirement was completed prior to enrollment at the University, the student must submit official transcripts to the Office of Admissions. If foreign language has not been satisfied prior to enrollment, then the student must take one year of foreign language before graduating from the university.

Source URL: www.cwu.edu/resources-reports/cwup-5-90-050-graduation-requirementsbachelor $\% \mathrm{E} 2 \% 80 \% 99$ s-degrees

## Scholastic Requirements

- Graduation and graduation with honors are based on credits and grade point averages (GPA) earned at the
time the degree is awarded. For more information regarding graduation with honors, please review the Graduation with Distinction section of the catalog. When a degree is awarded the academic record is frozen and no grade changes may be performed. Final responsibility for meeting graduation requirements resides with the student.
- In order to graduate, students must have achieved a cumulative grade-point average of at least 2.0 (C) in courses taken at CWU.
- Students must also have achieved a cumulative grade point average of at least 2.25 in the major and 2.0 in the minor field of study. All courses fulfilling the major and minor requirements, including courses accepted in transfer, are used in computing the major and minor GPA.
- Before a degree is awarded students must be in good academic standing and cannot be on academic suspension.
- Specific degree and professional certification programs may have more stringent degree requirements than those specified above.
- Transfer students must earn from CWU a minimum of 10 credits in the major and, if a minor is declared, 10 credits in the minor.


## Teacher Certification Program

- Cumulative grade-point average of at least 3.0 for the last 45 graded credits, OR an overall (all colleges attended) cumulative grade point average of 3.0.
- Grade point average of at least 2.5 for major, minor and professional education sequence.
- No grade lower than a C in major or minor, and foundation coursework, will be accepted for certification.


## Application for Degree

Degrees are not automatically awarded when requirements are completed. It is the responsibility of the student to apply for the degree in Registrar Services. Application for the bachelor's degree must be submitted by the second Friday of the quarter preceding the quarter in which the degree is to be completed. Students who apply for graduation after the deadline may incur late fees. Complete instructions and deadlines are available in Registrar Services and through university center offices. Step-by-step instructions may be found at www.cwu.edu/registrar/degree-checkout.

## Final responsibility for meeting graduation requirements and deadline dates resides with the student.

Exceptions to university graduation requirements must be petitioned to the registrar. An exception approval may be obtained from the general education committee, department, or program chair and college dean where appropriate. Exceptions to majors or minors and Teacher Certification Programs must be approved by the appropriate department chair and college dean or designee.

## Commencement Participation

Students who have met graduation requirements during the current academic year, summer through winter quarters, and those expecting to meet the requirements during the current
spring quarter or upcoming summer session, may participate in the spring commencement ceremony.

Students must complete the online commencement registration form located on the Wildcat Shop's home page at cwubookstore.collegestoreonline.com prior to the published commencement participation deadline. Students should also review the information on the commencement website located at www.cwu.edu/commencement for the most current information on the commencement activities and procedures.

Students participating in commencement exercises must wear commencement regalia approved by the registrar.

Students anticipating graduation the summer quarter following commencement exercises may participate in the commencement ceremony on a space available basis.

Candidates for summer graduation who wish to participate in the spring commencement ceremony prior to issuance of a degree must submit an application for graduation prior to the spring quarter deadline and complete degree requirements by the end of summer quarter. Published acknowledgment of the degree will not take place until the degree is conferred.

Candidates who have applied for their degree the summer following the June commencement ceremony are not eligible for honors distinction nor will their degree be published in the commencement book until the following academic year.

Exceptions to commencement procedures are approved by the registrar.

## Graduation with Distinction

The following conditions must be met in order to be considered for graduation with distinction:

- At least 45 of the credits required for the degree must be earned at Central in courses taken on the A-F grading scale.
- Credits earned by course challenge, CLEP, and other national examinations, military experiences or courses, non-college courses, and industrial experience will not be allowed toward the 45 -credit eligibility requirement.
- Honors shall be based on the GPA of all credits earned at Central and all transfer credits accepted by CWU.
Baccalaureate honors are awarded to recipients of a first
bachelor's degree according to the following standards:
3.500 to 3.699 - cum laude
3.700 to 3.899 - magna cum laude
3.900 to 4.000 - summa cum laude

Cum laude, magna cum laude, and summa cum laude will be noted on the recipient's diploma and university transcript and students participating in commencement exercises may wear their appropriate honors tassel.

For spring quarter degree candidates, the registrar will calculate the top percentage for the declared spring degree candidates based on the end of winter quarter data. Commencement honor tassels will be determined based upon the most recent data available. Final determination of honors will be made after the
spring quarter graduation ceremony when all grades are recorded.

Students completing degree requirements during the summer will not be eligible for honors recognition until the following spring commencement ceremony.

President's Scholars: President's Scholars are those students who, in the current academic year, have cumulative GPA's in the top $1 \%$ of their respective school or college class. GPA is calculated by existing university policy.

Dean's Scholars: Dean's scholars are those students who, in the current academic year, have a cumulative GPA in the top $5 \%$ of their respective school or college class (but not including the top $1 \%$ ). GPA is calculated by existing university policy. Eligible individual study majors will be determined by the Provost or designee.

The following conditions must be met in order to be considered for President's and Dean's Scholars:

- At least 45 of the credits required for the degree must be earned at Central in courses taken on the A-F grading scale.
- Credits earned by course challenge, CLEP, and other national examinations, military experiences or courses, non-college courses, and industrial experience will not be allowed toward the 45 -credit eligibility requirement.
- Honors shall be based on the GPA of all credits earned at Central and all transfer credits accepted by CWU.
NOTE: Individual study majors will be computed with the College of the Sciences majors.


## Concurrent Baccalaureate Degrees

A student may be awarded more than one baccalaureate degree (BA, BAEd, BAS, BFA, BM, BS) at the same time provided that requirements of both degree programs have been completed. Double majors within the same baccalaureate program do not constitute separate baccalaureate degrees except in cases where the second degree requires 60 or more credits that do not satisfy any degree requirements of the first degree.

In disciplines offering multiple baccalaureate degrees with identical or similar names, such as BA and BS in biology, only one degree will be awarded. Exceptions to this policy require approval by the department chair and appropriate dean.

Source URL: http://www.cwu.edu/resources-reports/cwup-5-$90-050$-graduation-requirements-bachelor $\% \mathrm{E} 2 \% 80 \% 99$ sdegrees

## Second Baccalaureate Degree

Qualified students seeking second baccalaureate degrees are admitted to post-baccalaureate status; this does not mean, however, that they are enrolled in an "advanced degree program." To receive a second baccalaureate degree, students must complete: (1) all degree requirements not satisfied by the previous degree, and (2) a minimum of 45 quarter credits from Central.

Second baccalaureate students must be accepted into a degree or certificate program by the time they have earned 25 credits beyond their last degree. Once a degree objective has been
declared, second baccalaureate students must develop graduation plans with academic advisors. Academic department chairs may grant extensions beyond the 25 -credit limit. Second baccalaureate degree students follow regulations applicable to undergraduates.

Second baccalaureate degree students may request from the department that any requirement of a minor be satisfied by the initial bachelor's degree earned provided that the requirements of the minor were completed in prior course work.

CWU reserves the right to review a post-baccalaureate student's transfer work to determine fulfillment of requirements.

## Academic Policies

- Resources and Reports (home of the Policies and Procedures)
- Academic Appeal Procedures CWUP 5-90-010(3)
- Alcohol and Drug Policy CWUP 2-40-030
- Discrimination Complaint and Resolution Policy CWUP 2-35-070
- Equal Opportunity Policies and Programs CWUP 2-35
- Family Educational Rights and Privacy Act (FERPA) CWUP 2-20-070
- Reasonable Accommodation of Persons with Disabilities - Students CWUP 2-35-040
- Students Rights and Responsibilities Policy WAC Title 106
- Student Sexual Assault Response Policy CWUP 8-40050


## Disclaimer: all policies and procedures are reviewed biannually by the University Policy Advisory Committee (UPAC).

## 2018-2019 General

## Education Program

MISSION, RATIONALE, AND STUDENT OUTCOMES

The general education program offers undergraduate students a liberal arts education in order to cultivate thoughtful and responsible persons and citizens, to prepare them for the world of work and to teach them to pursue knowledge for its own sake. In order to accomplish those broad goals, the general education program seeks to promote effective reasoning, broad and deep learning, and the inclination to inquire.

## Effective Reasoning

A comprehensive liberal education helps students to develop their abilities to recognize and to think clearly about important issues and questions. The ability to think clearly involves fluency in reading, writing and oral communication, as well as mastery of the basic principles of logical, mathematical and scientific reasoning.

## Broad and Deep Learning

A liberally educated person should possess a rich and broad fund of meaningful knowledge as well as the ability to compare and integrate new or different areas of knowledge in fruitful ways. To that end, the general education curriculum imparts a broad understanding of the various liberal arts and sciences and the ways that those arts and sciences evolve. In much the same way, the curriculum aims to foster an appreciation of diversity as a rich source of new ideas and opportunities for learning. Through such studies, students may comprehend the interconnectedness of knowledge and the importance of integrating knowledge gained from disparate parts of the curriculum.

## The Inclination to Inquire

An education in the liberal arts fosters a student's commitment to seek out and acquire important knowledge and skills, both for their intrinsic value and for the good they contribute to our common and individual lives. For this reason, a disposition to ask incisive and insightful questions is perhaps the surest sign of a liberally educated mind.

The general education requirement offers a basic knowledge of mathematics and the natural sciences, including laboratory experience, intermediate knowledge of at least one world language, the study of the humanities, the political, philosophical and cultural history of world civilizations, and the foundations and principles of American society.

This mission statement reflects the standards promulgated by the American Academy for Liberal Education and CWU's Mission Statement.

## General Education Program Goals

1. Students will become thoughtful and responsible members of society and stewards of the Earth.
2. Students will respect diversity of background, experience and belief, and will value the different perspectives that this diversity brings.
3. Students will achieve fluency in reading, writing, oral communication and information technology.
4. Students will master the basic principles of logical, mathematical and scientific reasoning.
5. Students will develop an appreciation of the breadth and depth of scientific and humanistic knowledge.
6. Students will develop a sense of the interconnectedness of knowledge.
7. Students will integrate knowledge from diverse fields of study in order to solve real-world problems.
8. Students will become aware of the manifold ways that knowledge evolves.
9. Students will develop a disposition to ask incisive and insightful questions.

## Assessment of the General Education Program

1. Students will be surveyed as to how well they think their courses addressed the mission of the general education program.
2. Instructors will be surveyed as to how well they think the courses addressed the mission of the general education program.
3. Student achievement in general education classes will be evaluated regularly by means of examinations.

All courses taken to satisfy general education requirements must be taken for a letter grade.

## BASIC SKILLS REQUIREMENT

All students must satisfy the following requirements in basic academic and intellectual skills:

## 1. Academic Advising

Only required of students who enter Central with fewer than 45 credits.

- UNIV 101 - Transition to CWU Credits: (1)


## 2. English Comp I

A grade of C- or higher is required in ENG 101 before ENG 102 may be taken.

- ENG 101 - Academic Writing I: Critical Reading and Responding Credits: (5)


## 3. English Comp II

- ENG 102 - Academic Writing II: Reasoning and Research on Social Justice Credits: (5)


## 4. Mathematics

Select one from the following:

- FIN 174 - Personal Finance Credits: (5)
- MATH 101 - Mathematics in the Modern World Credits: (5)
- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 164 - Foundations of Arithmetic Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)


## 5. Reasoning

Select one from the following:

- CS 105 - The Logical Basis of Computing Credits: (4)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- MATH 102 - Mathematical Decision Making Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)
- PHIL 150-Critical Thinking Credits: (5)
- PHIL 201 - Introduction to Logic Credits: (5)


## 6. Computer Fundamentals

Select one from the following:

- BUS 102 - Business Computer Skills Credits: (4)
- CS 101 - Computer Basics Credits: (4)
- IT 101 - Computer Applications Credits: (3)


## 7. Foreign Language

- 2-years high school or 1-year college (One year of college or university study of a single foreign language or two years of high school study of a single foreign language. Courses used to satisfy this foreign language basic skills requirement may not be used to satisfy the Philosophies and Cultures of the World breadth requirement).


## All students

All students must have met these basic education requirements by the end of the quarter in which they complete 75 credits. (This does not include the foreign language basic skills requirement, which may require more time to complete.) Students who do not meet this standard will have a hold placed on further course registration. To remove the hold, the student must meet with an advisor and submit a program of study to plan successful completion of this requirement. The student's progress will then be monitored by an assigned academic advisor.

## Williams O. Douglas Honors

Students in the William O. Douglas Honors program should check with their advisor regarding the General Education requirements.

## WRITING REQUIREMENT

Four (4) of the courses taken to fulfill the breadth requirement must have the writing designation in the list below. These are courses which include at least seven
(7) pages of assigned writing that is assessed for content and mechanics (grammar, spelling, punctuation, and organization).

## BREADTH REQUIREMENT

## I. ARTS AND HUMANITIES

Students must take at least one course from each of the three groups. No more than one class from a single department may be counted toward this requirement.

## Literature and the Humanities

A grade of C- or higher is required in ENG 101 before taking any of the courses in this category.

- ABS 110 - Expressive Black Culture: African American Literary Traditions from Folklore to Rap Credits: (5)
- ENG 105 - The Literary Imagination: An Introduction to Literature Credits: (5) (Fulfills Writing Requirement)
- ENG 247 - Multicultural Literature Credits: (5) (Fulfills Writing Requirement)
- ENG 347 - Global Perspectives in Literature Credits: (5) (Fulfills Writing Requirement)
- HUM 101 - Exploring Cultures in the Ancient World Credits: (5) (Fulfills Writing Requirement)
- HUM 102 - Exploring Cultures From 16th through 19th Centuries Credits: (5) (Fulfills Writing Requirement)
- HUM 103 - Exploring Cultures in Modern and Contemporary Societies Credits: (5) (Fulfills Writing Requirement)


## The Aesthetic Experience

- ART 103-Art Appreciation Credits: (4)
- FILM 250 - Introduction to Film Credits: (5) (Fulfills Writing Requirement)
- MUS 101 - History of Jazz Credits: (5)
- MUS 102 - Introduction to Music Credits: (5)
- MUS 103 - History of Rock and Roll Credits: (5)
- DNCE 161 - Cultural History of Dance Credits: (4)
- TH 101 - Appreciation of Theatre and Film Credits: (4)
- TH 107 - Introduction to Theatre Credits: (4) (Fulfills Writing Requirement)
- TH 375 - Asian Drama Credits: (4) (Fulfills Writing Requirement)
- TH 382 - Diverse Experiences in American Drama Credits: (4) (Fulfills Writing Requirement)


## Philosophies and Cultures of the World

- World Languages 251, 252, or 253. Second-year World Language (same as studied in high school) Credits: (5)
OR World Languages 151, 152 or 153 or CHIN 141, 142, or 143. First-year World Language (different than the one used to meet basic skills requirement) Credits:(5)
- PHIL 101 - Philosophical Inquiry Credits: (5) (Fulfills Writing Requirement)
- PHIL 104 - Moral Controversies Credits: (5) (Fulfills Writing Requirement)
- PHIL 106 - Asian Philosophy Credits: (5) (Fulfills Writing Requirement)
- PHIL 306 - Environmental Ethics Credits: (5) (Fulfills Writing Requirement)
- PHIL 378 - Philosophy of Love Credits: (5) (Fulfills Writing Requirement)
- RELS 101 - World Religions Credits: (5) (Fulfills Writing Requirement)


## II. SOCIAL AND BEHAVORIAL SCIENCES

Students must take at least one course from each of the three groups. No more than one class from a single department may be counted toward this requirement.

## Perspectives on the Cultures and Experiences of the United States

An introduction to the institutions, cultures, and traditions of the United States intended to encourage a critical and analytical understanding of how the past affects the present and the future. An introduction to the complexities of social, economic, and political processes, issues, and events in the United States intended to provide a context for informed decision-making and citizenship.

- AIS 101 - American Indian Culture before European Contact Credits: (5) (Fulfills Writing Requirement)
- AIS 102-American Indians in the Contact Period Credits: (5) (Fulfills Writing Requirement)
- AIS 103 - Contemporary American Indian Experience Credits: (5) (Fulfills Writing Requirement)
- COM 202 - The First Amendment: Rights and Responsibilities Credits: (5)
- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- SOC 109 - Social Construction of Race Credits: (5) (Fulfills Writing Requirement)
- HIST 143 - United States History to 1865 Credits: (5) (Fulfills Writing Requirement)
- HIST 144 - United States History Since 1865 Credits: (5) (Fulfills Writing Requirement)
- LAJ 102 - Introduction to Law and Justice Credits: (5)
- POSC 210 - American Politics Credits: (5)
- SOC 101 - Social Problems Credits: (5) (Fulfills Writing Requirement)
- SOC 305 - American Society Credits: (5) (Fulfills Writing Requirement)
- WGSS 201 - Introduction to Women's, Gender, and Sexuality Studies Credits: (5) (Fulfills Writing Requirement)
- WGSS 250 - Introduction to Queer Studies Credits: (5) (Fulfills Writing Requirement)


## Perspectives on World Cultures

An introduction to institutions, cultures, and traditions of nations, groups, and societies outside the United

States intended to encourage an understanding and appreciation of the dimensions of human diversity as well as similarities. An introduction to contemporary international and transnational issues intended to provide a broader perspective of the individual's relationship to other cultures and to common human concerns.

- ANTH 130 - Cultural Worlds Credits: (5)
- AST 102 - Introduction to Asian Studies Credits: (3) (Fulfills Writing Requirement)
- COM 302 - Intercultural Communication Credits: (4) (Fulfills Writing Requirement)
- ECON 102 - World Economic Issues Credits: (5) (Fulfills Writing Requirement)
- GEOG 101 - World Regional Geography Credits: (5)
- HIST 101 - World History to 1500 Credits: (5) (Fulfills Writing Requirement)
- HIST 102 - World History: 1500-1815 Credits: (5) (Fulfills Writing Requirement)
- HIST 103 - World History Since 1815 Credits: (5) (Fulfills Writing Requirement)
- LLAS 102-An Introduction to Latino and Latin American Studies Credits: (5) (Fulfills Writing Requirement)
- POSC 270 - International Relations Credits: (5) (Fulfills Writing Requirement)


## Foundations of Human Adaptions and Behavior

An introduction to and analysis of the fundamental principles underlying human interaction intended to foster a better understanding of the human condition. An introduction to the fundamental patterns and understandings of human interaction with natural and man-made environments intended to help students make informed judgments concerning broad environmental issues.

- ANTH 107 - Being Human: Past and Present Credits: (5)
- ANTH 120 - Archaeology: Science of the Past Credits: (5) (Fulfills Writing Requirement)
- FCL 310 - Family Issues in the 21st Century Credits: (4) (Fulfills Writing Requirement)
- FCL 337 - Human Sexuality Credits: (4)
- GEOG 208 - Our Human World Credits: (5)
- HED 101 - Essentials for Healthy Living Credits: (4)
- POSC 101 - Introduction to Politics Credits: (5) (Fulfills Writing Requirement)
- PSY 101 - General Psychology Credits: (5)
- PSY 205 - Psychology of Adjustment Credits: (5) (Fulfills Writing Requirement)
- SOC 107 - Principles of Sociology Credits: (5) (Fulfills Writing Requirement)


## III. THE NATURAL SCIENCES

The natural sciences provide basic methods for rigorously describing and comprehending the natural world. Inquiry-driven laboratory and field observations are an essential mode of teaching, learning, and practicing natural science. Students must take at least
one course from each of the three groups. No more than one class from a single department may be counted toward this requirement. It may be advantageous for students to take courses from groups in the order they appear below.

## Fundamental Disciplines of Physical and Biological Sciences

An introduction to those sciences that study the fundamentals of physical and life systems.

- BIOL 101 - Fundamentals of Biology Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- GEOL 101 - Introduction to Geology Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- PHYS 106 - Physics Inquiry Credits: (5) (Lab included)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 181 - General Physics I with Laboratory Credits: (5)

Patterns and Connections in the Natural World
Those sciences that use a knowledge of basic scientific disciplines to examine large and complex physical and life systems.

- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5) (Fulfills Writing Requirement)
- BIOL 201 - Human Physiology Credits: (5)
- BIOL 300 - Introduction to Evolution Credits: (5)
- ENST 201 - Earth as an Ecosystem Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOL 103-Geology of Washington Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 107 - Earth's Changing Surface Credits: (4)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- PHYS 101 - Introductory Astronomy I Credits: (5) (Lab included)
- PHYS 102 - Introduction to Astronomy Credits: (4) (Lab included)


## Applications of Natural Science

These courses explicitly treat social, economic, technological, ethical or other implications of natural phenomena, of human influence on natural systems, or of responsive scientific inquiry.

NOTE: *Only open to freshman students enrolled in STEP program, and all three courses must be completed with passing grade to receive credit for Application of Natural Science breadth and one Writing requirement.

- ANTH 314 - Human Variation Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- CHEM 101 - Chemistry and Planet Earth Credits: (5) (and Lab)
- ENST 202 - Environment and Society Credits: (5)
- ENST 310 - Energy and Society Credits: (5) (Fulfills Writing Requirement)
- ETSC 101 - Modern Technology and Energy Credits: (5)
- GEOG 273 - Geography of Rivers Credits: (5)
- GEOL 108 - Earth and Energy Resources Credits: (4)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- PHYS 103 - Physics of Musical Sound Credits: (5) (Fulfills Writing Requirement)
- PHYS 108 - Light and Color Credits: (4) (Lab included)
- STEP 101 - Scientific Perspectives and Experimentation I Credits: (2) *see note
- STEP 102-Scientific Perspectives and Experimentation II Credits: (2) *see note
- STEP 103 - Scientific Perspectives and Experimentation III Credits: (1) *see note (Fulfills Writing Requirement)


## General Education Course Descriptions

ABS 110. Expressive Black Culture:
African American Literary
Traditions from Folklore to Rap (5).
Interdisciplinary exploration of
perspectives in African American folk
culture, from oral expressions
originating in Africa and developed
during slavery to contemporary rap and
stand-up comedy. Course explores the
worldwide contribution of black oral
performative art. AH-Literature and
Humanities. Course will be offered
every year (Fall, Winter and Summer).
AIS 101. American Indian Culture
before European Contact (5). An
interdisciplinary approach explores the
lifeways and environments of
American Indians prior to European
contact and settlement. Sources of pre-
contact information consist of the
archaeological, oral history, and
paleoenvironmental records. SB-
Perspectives on Cultures and
Experiences of U.S. (W). Course will
be offered every year (Fall).
AIS 102. American Indians in the
Contact Period (5). An
interdisciplinary study of the lifeways
and environments of American Indians
during the period of European contact.
Sources of contact period information
come from the archaeological,
American Indian and European written
and oral history records. SB-
Perspectives on Cultures and
Experiences of U.S. (W). Course will
be offered every year (Winter).
AIS 103. Contemporary American
Indian Experience (5). An
interdisciplinary approach explores the
emergence of contemporary American
Indians after AD 1890 with an
emphasis on social, political, and
cultural aspects. Sources of information
about this period come from written
and oral history. SB-Perspectives on
Cultures and Experiences of U.S. (W).
Course will be offered every year
(Spring).
ANTH 107. Being Human: Past and
Present (5). Exploration of being
human throughout the world from the
earliest human ancestors to today using
archaeological, biological, cultural and
linguistic anthropology methods and
perspectives. SB-Foundations of
Human Adaptations and Behavior.
and

ABS 110. Expressive Black Culture: African American Literary Interdisciplinary exploration of perspectives in African American folk originating in Africa and developed during slavery to contemporary rap and old id performative art. AH-Literature and Humanities. Course will be offered every year (Fall, Winter and Summer) before European Contact (5). An interdisciplinary approach explores the ays and environments of contact and settlement. Sources of precontact information consist of the archaeological, oral history, and paleoenvironmental records. SBes on Culures and be offered every year (Fall).
AIS 102. American Indians in the Contact Period (5). An interdisciplinary study of the lifeways and Sources of contact period information come from the archaeological, American Indian and European written and oral history records. SB-
Perspectives on Cultures and Experiences of U.S. (W). Course will be offered every year (Winter).

## Indian Experience (5). An

interdisciplinary approach explores the Indians after AD 1890 with an emphasis on social, political, and cultural aspects. Sources of information about this period come from written oral history. SB-Perspectives on Course will be offered every year (Spring).
ANTH 107. Being Human: Past and Present (5). Exploration of being Pan throughout the world from the linguistic anthropology methods and perspectives. SB-Foundations of Human Adaptations and Behavior.

Course will be offered every year (Fall, Winter, Spring).
ANTH 110. Bones, Apes, and Genes: Exploring Biological Anthropology
(5). Exploration of the field of biological anthropology, including humankind's evolutionary relationships to other primate forms, the human fossil record, and on-going evolutionary processes impacting on the human species. NS-Patterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring, Summer).
ANTH 120. Archaeology: Science of the Past (5). Introduction to the concepts, methods, and development of archaeology, as well as key discoveries from the ancient world. Illustrations of how fields of science are combined to uncover past human achievements and diverse cultures. SB-Foundations of Human Adaptations and Behavior (W). Course will be offered every year (Fall, Winter, Spring)
ANTH 130. Cultural Worlds (5). The cross-cultural and holistic study of humans worldwide, including the analysis of race, gender, power, kinship, globalization, and the role of symbols in social life. Students will also examine their own world through anthropological lenses. SBPerspectives on World Cultures.
ANTH 314. Human Variation (4). Survey of genetic, physiological, and morphological diversity of modern human populations, with a focus on how humans' biological variation interacts with culture to enable adaptation to various ecological settings. NS-Applications Natural Science. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: sophomore standing or above.
ART 103. Art Appreciation (4). Art Appreciation is an introduction to artistic styles, periods of art, and artistic techniques and processes. It introduces students to the visual components of art, and considers the cultural, economic, and societal significance of art. AH-Aesthetic Experience. Course will be offered every year (Fall, Winter, Spring and Summer).
AST 102. Introduction to Asian Studies (3). An interdisciplinary introduction to
the study of Asia; emphasizing geography, history, culture, and economics. SB-Perspectives on World Cultures (W). Course will be offered every year (Fall, Winter, Spring, and Summer).
BIOL 101. Fundamentals of Biology
(5). Introduction to scientific inquiry and basic principles of biology at molecular, cellular, organismal, community, and ecosystem levels as applied to humans, society, and the environment. Four hours lecture and one two-hour laboratory per week. May not be counted toward a major or minor in the department of biological sciences. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, Spring, and Summer).
BIOL 200. Plants in the Modern World (5). In this course, students will develop a broad knowledge base about plants, their life processes and ways in which humans are dependent on plants and their products. The course includes inquiry-driven laboratory and field observations. May not be counted toward a major or minor in the department of biological sciences. NSPatterns and Connections Natural World (W) (L). Course will be offered every year. Course will not have an established scheduling pattern.
BIOL 201. Human Physiology (5). An introduction to the function of human cells, organs, and organ systems as it relates to health and well-being current developments, and society. Not open to students with credit in BIOL 455; may not be counted toward a major or minor in the department of biological sciences. NS-Patterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring, and Summer).
BIOL 300. Introduction to Evolution (5). An introduction to the Darwinian theory of evolution. Exploration of the mechanisms of evolutionary change, speciation, and macroevolutionary patterns of the evolution of life on Earth including humans. May not be counted toward a major or minor in the department of biological sciences. NSPatterns and Connections Natural World. Course will not have an established scheduling pattern.

Prerequisite: sophomore standing or above. May not be counted toward a major in the department of biological sciences.
BIOL 302. Sustainability and Environmental Change (5). Basic concepts of ecology with emphasis on ecosystems and populations and how human activities and attitudes relate to these basic concepts. May not be counted toward a major or a minor in the department of biological sciences. NS-Applications Natural Science.
BUS 102. Business Computer Skills (4). This course will develop practical computer skills needed to evaluate and help solve business problems. Students will learn how to use software commonly used in businesses to access, organize and analyze information and present it professionally in presentations and reports. Basic Skills 6 - Computer Fundamentals.

CHEM 101. Chemistry and Planet
Earth (5). Introduction to chemical principles and applications for nonscientists, with a focus on the interaction of human beings with the natural environment, 4 hours lecture and 2 hours lab weekly. NSApplications Natural Science (L). Course will be offered every year (Fall, Spring, Summer).
CHEM 111. Introduction to Chemistry
(4). Chemical principles of the compositions, structure, properties, and changes of matter. Designed for students in certain health science programs. Four lectures weekly.
Combined with CHEM 111LAB satisfies Physical and Natural World,
Ways of Knowing pathway. NS-Fund
Disc Phys and Biological Sciences.
Course will be offered every year (Fall,
Winter, Spring).
CHEM 111LAB. Introductory
Chemistry Laboratory (1).
Introduction to basic chemistry
techniques. Two hours
laboratory weekly. Combined with CHEM 111 lecture satisfies Physical and Natural World, Ways of Knowing. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, Spring and Summer). Co- or prerequisite:

## CHEM 111.

CHEM 181. General Chemistry I (4).
This course introduces chemistry concepts such as atoms and molecules, stoichiometry, solution chemistry, thermochemistry, electronic structure of the atom and periodicity, and chemical bonding. NS-Fund Disc Phys and Biological Sciences. Course will be
offered every year (Fall, Winter and Spring). Prerequisites: strongly recommend high school chemistry and recommend qualification for MATH 153.

CHEM 181LAB. General Chemistry Laboratory I (1). This laboratory supports hands-on, inquiry-based approaches to exploring topics presented in CHEM 181. Three hours of laboratory weekly. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter and Spring). Co- or prerequisite: CHEM 181.
COM 202. The First Amendment: Rights and Responsibilities (5). This class explores the First Amendment freedoms as the foundation of a free, tolerant and democratic society. The communicative rights and responsibilities of citizens in a democracy governed by such an amendment are also examined. SBPerspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter, Spring, Summer).
COM 302. Intercultural Communication (4). The objective of this course is to give the participants the skills and understanding necessary to improve communication with peoples of other nations and cultures. SB-Perspectives on World Cultures (W). Prerequisite: sophomore standing or above.
CS 101. Computer Basics (4). Integrated, project-based course using student-produced working materials in the form of a mini thesis. Microsoft Office tools are learned in a web-based practical application environment.
Basic Skills 6 - Computer Fundamentals.
CS 105. The Logical Basis of Computing (4). Students develop mathematical and quantitative reasoning skills by learning the fundamentals of computer programming. Students gain an understanding of possible connections between technology and artistic expression. Basic Skills 5 - Reasoning. Course will be offered every year (Fall, Winter, Spring, Summer).
DNCE 161. Cultural History of Dance (4). A comprehensive look at the global dynamics of dance, examining the diverse cultural traditions and the innovations that have advanced dance into the 21st century. AH-Aesthetic Experience. Formerly PED 161, students may not receive credit for
both. Course will be offered every year (Fall, Winter, Spring, and Summer).
ECON 101. Economic Issues (5). For the student who desires a general knowledge of economics. Applications of economic principles to current social and political problems. ECON 101 cannot be substituted for either ECON 201 or 202. SB-Perspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter).

## ECON 102. World Economic Issues

(5). An introduction to current international issues related to international trade and finance, economic development, and comparative economic systems. SBPerspectives on World Cultures (W). Course will be offered every year (Fall, Spring).

## ECON 130. Foundations for Business

Analytics (5). Role of mathematics, statistics and software to business and economic decision making; business and economics applications including indexing, percentage changes, compounding, financing, and accounting; probability theory and descriptive statistical analysis; modelling. Includes a lab component. Basic Skills 5 - Reasoning. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26Algebra, 31-College Algebra, or 31Trigonometry, or completed MATH 100B or a higher level math class.
ECON 201. Principles of Economics Micro (5). Introduction to standard economic models used to examine how individuals and firms make decisions under different market structures; role of government in the economy in addressing market failure and efficiency equity tradeoff. SBPerspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter, Spring, Summer).
ENG 101. Academic Writing I: Critical Reading and Responding (5). Develops skills necessary for academic writing, including summarizing, reading sources critically and responding to them, synthesizing multiple perspectives, and using academic writing conventions. Required of all students except those who have passed an exemption examination. Students must earn a minimum grade of C - or above to enroll in ENG 102. Basic Skills 2 English Comp I. Course will be offered every year (Fall, Winter, Spring,

Summer). Prerequisite: appropriate test scores or have satisfactorily completed ENG 100T: Transitional English.
ENG 102. Academic Writing II: Reasoning and Research on Social Justice (5). Develops skills in researchbased academic argument through assignments involving evaluation, analysis, and synthesis of multiple sources. Course will be offered every year (Fall, Winter, Spring, Summer). Basic Skills 3 - English Comp II. Prerequisite: ENG 101 with a grade of C- or higher.
ENG 105. The Literary Imagination: An Introduction to Literature (5). Human experience as it is imagined, interpreted, and made significant in poetry, prose, fiction, and drama. ENG 105, 106 and ENG 107 are equivalent courses; students may receive credit for only one. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Literature and Humanities (W). Prerequisite: ENG 101 with a grade of C- or higher.
ENG 247. Multicultural Literature (5). Literary themes examined through the comparison of works from various cultures. AH-Literature and Humanities (W). Prerequisite: ENG 101 with a grade of C - or higher.
ENG 347. Global Perspectives in Literature (5). An introduction to contemporary non-western and postcolonial literature. Course will be offered every year (Fall, Spring, Summer). AH-Literature and Humanities (W). Prerequisites: sophomore standing or above and ENG 101 with a grade of C- or higher.
ENST 201. Earth as an Ecosystem (5). Introduction to the concept of our planet as a finite environment with certain properties essential for life and will explore dynamic nature of the earth's physical, chemical, geological, and biological processes and their interrelated "systems". Course will be offered every year (Fall, Spring). NSPatterns and Connections Natural World.
ENST 202. Environment and Society
(5). The physical and cultural dimensions of environmental problems with particular emphasis given to the interaction between ecosystems, basic resources, population dynamics, and culture. Course will be offered every year (Fall, Summer). NS-Applications Natural Science.
ENST 310. Energy and Society (5).
Through classroom and field experience, students will examine society's use of and dependence upon
energy. Students will become more discerning citizens, able to take part in local, national, and global energy discussions. Course will be offered every year (Fall). NS-Applications Natural Science (W). Prerequisite: sophomore standing or above.
ETSC 101. Modern Technology and Energy (5). A study of how basic scientific principles are applied daily in industrial societies through a survey of transportation, energy and power, construction, and consumer product technologies. Formerly IET 101, students may not receive credit for both. NS-Applications Natural Science. Course will be offered every year (Fall, Winter, Spring, Summer).
FCL 310. Family Issues in the 21st Century (4). An introduction to social issues that impact family life. Current issues pertaining to individual and family relationships are assessed from an interdisciplinary perspective. SBFoundations of Human Adaptations and Behavior (W). Formerly FS 310, students may not receive credit for both.
FCL 337. Human Sexuality (4). The biophysical, psychosocial, and behavioral aspects of sexuality with emphasis on making responsible sexual decisions and promoting healthy relationships. General Education: SBFoundations of Human Adaptations and Behavior. Formerly FS 337, students may not receive credit for both. Prerequisite: sophomore standing or above.
FILM 250. Introduction to Film (5). Learning and applying motion picture vocabulary and aesthetic concepts through screenings, discussions, and writing. Emphasis on the social context, cultural influences, and aesthetic qualities of film. AHAesthetic Experience (W). Formerly FVS 250, students may not receive credit for both. Prerequisite: ENG 101 and ENG 102 with a grade of C- or higher.
FIN 174. Personal Finance (5). This course addresses the broad spectrum of financial issues encountered by individuals throughout their lives. Topics include but are not limited to: Preparing a personal budget, money management, investments, retirement planning, educational planning and insurance. Course will be offered every year (Fall, Winter, Spring, Summer). Basic Skills 4 - Math. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, a 26-Algebra, 31-

College Algebra, or 31-Trigonometry, or an Accuplacer score in Elementary Algebra of $60+$ or Arithmetic of $100+$, or completed MATH 100B or a higher level math class.
GEOG 101. World Regional
Geography (5). An introduction to the dynamic landscapes of the world's major regions, examining socioeconomic, political, demographic, cultural and environmental patterns, processes, and issues. SB-Perspectives on World Cultures. Course will be offered every year (Fall, Winter, Spring and Summer).
GEOG 107. Our Dynamic Earth (5).
The complex weather, climate, water, landforms, soils, and vegetation comprising Earth's physical environments over space and time. Incorporates map interpretation and scientific analysis in understanding various landscapes and human impacts upon those landscapes. NS-Patterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring and Summer).
GEOG 208. Our Human World (5).
Explores the historical diffusion and contemporary spatial distribution of cultures, religions, and languages. Evaluates how these features interact with economic and political systems to create distinctive places at scales ranging from local to global. Formerly GEOG 108, student may not receive credit for both. SB-Foundations of Human Adaptations and Behavior. Course will be offered every year (Fall, Spring and Summer).
GEOG 273. Geography of Rivers (5). Drawing on local, regional, and global case studies, this course examines rivers as bio-physical systems, impacted by natural and anthropogenic forces. Focus is placed on human development of floodplains and ecosystem functioning within riparian areas. Course will be offered every year (Fall, Winter, Spring, Summer).
GEOL 101. Introduction to Geology
(4). An introduction to geology emphasizing the origin and nature of the common rocks, plate tectonic theory, earthquake and volcanoes, and geologic time. Course will be offered every year (Fall, Winter, Spring, Summer). NS-Fund Disc Phys and Biological Sciences. Co- or prerequisite: GEOL 101LAB.
GEOL 101LAB. Introductory Geology Laboratory (1). Application of map study to geological processes and land forms, identification of rocks and minerals, and local field trips. Two
hours laboratory per week. NS-Fund Disc Phys and Biological Sciences (L) or NS-Patterns and Connections Natural World (L).
GEOL 103. Geology of Washington (4). Fundamentals of geology applied to the state of Washington. Topics include Washington's volcanic, earthquake, tectonic, and glacial activity. Four lectures per week. Course will be offered every year (Fall, Winter). NS-Patterns and Connections Natural World. Corequisite: GEOL 101LAB.
GEOL 107. Earth's Changing Surface
(4). The role of natural geologic processes in shaping the earth's surface; includes hydrologic cycle, rivers and flooding, landslides, coastal processes, and climate cycles. Four hour lecture per week plus required field trips.
Course will be offered every year (Fall, Winter, Spring). General Education: NS-Patterns and Connections Natural World.
GEOL 108. Earth and Energy Resources (4). Exploration of the earth's mineral and energy resources, how they are formed, harnessed, and the environmental impacts of their extraction and use. Course will be offered every year (Fall, Winter, Spring, Summer). NS-Applications Natural Science.
GEOL 302. Oceans and Atmosphere
(4). Introduction to Earth's climate and the hydrologic cycle through study of the ocean-atmosphere system. Chemical and physical changes will be studied over time scales ranging from millions of years to days. Will include a field trip. Course will be offered every year (Fall, Winter, Spring, Summer).
NS-Patterns and Connections Natural World. Prerequisite: sophomore standing or above.
HED 101. Essentials for Healthy Living (4). Essentials for Healthy Living is a survey course designed to give the student the practical and theoretical knowledge necessary to apply principles of overall wellness in the pursuit of a healthier lifestyle.
Course will be offered every year (Fall, Winter, Spring, Summer). SB-
Foundations of Human Adaptations and Behavior.
HIST 101. World History to 1500 (5). Origins and development of the major world civilizations to the 15 th century. A comparative study of their political, social, and economic institutions, and their religious and intellectual backgrounds. Course will be offered
every year (Fall, Winter, Spring). SB-
Perspectives on World Cultures (W).
HIST 102. World History: 1500-1815
(5). A comparative survey of political, social, economic, and cultural developments in world history from 1500-1815. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on World Cultures (W).

## HIST 103. World History Since 1815

(5). A comparative survey of political, social, economic, and cultural developments in world history since 1815. Course will be offered every year (Fall, Winter, Spring, Summer). SB-
Perspectives on World Cultures (W).
HIST 143. United States History to 1865 (5). Survey of U.S. history from before contact to Civil War. Themes include pre-Columbian societies; colonization; epidemics and environmental change; slavery; the American Revolution and Constitution; the market revolution; Manifest Destiny; and the Civil War. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on Cultures and Experiences of U.S. (W).
HIST 144. United States History Since 1865 (5). U.S. history from Reconstruction to the present. Themes include Imperialism, Progressivism, World War I, Great Depression, World War II, the Civil Rights and Women's Movements, the Vietnam War, recent U.S. foreign policy and political movements. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on Cultures and Experiences of U.S. (W).
HUM 101. Exploring Cultures in the Ancient World (5). An
interdisciplinary exploration from literature, history, philosophy, and the arts of selected major ancient civilizations in Asia, Africa, Europe, and/or the Americas from their beginnings through the 15 th century. Course will be offered every year (Fall, Winter, Spring, Summer). AHLiterature and Humanities (W). Prerequisites: ENG 101 with a grade of C- or higher.

## HUM 102. Exploring Cultures From

 16th through 19th Centuries (5). An interdisciplinary exploration of selected literature, history, philosophy, and the arts in Asia, Africa, Europe, and the Americas from the 16th through the 19th centuries. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Literature and Humanities (W). Prerequisites: ENG 101 with a grade of C - or higher.HUM 103. Exploring Cultures in Modern and Contemporary Societies (5). An interdisciplinary exploration of literature, history, philosophy, and the arts of selected world civilizations of the 20th and 21 st centuries. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Literature and Humanities (W). Prerequisites: ENG 101 with a grade of C- or higher.
IT 101. Computer Applications (3). Basic skills in Windows, word processing, spreadsheets, databases, and presentations. Basic Skills 6 Computer Fundamentals.
LAJ 102. Introduction to Law and Justice (5). This course will focus on the role of law in society and will examine both the criminal and civil law system, as well as, the function of law in social change and social control. Course will be offered every year (Fall, Winter, Spring). SB-Perspectives on Cultures and Experiences of U.S.
LLAS 102. An Introduction to Latino and Latin American Studies (5). A multi-disciplinary introduction of Latino and Latin American studies, presented in three main components: People and the Land, The Environment and the Human Condition, and SocioPolitical Spectrum. SB-Perspectives on World Cultures (W).
MATH 101. Mathematics in the Modern World (5). Selected topics from the historical development and applications of mathematics together with their relationship to the development of our present society. Basic Skills 4 - Math. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26-Algebra, 31College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.
MATH 102. Mathematical Decision Making (5). Selected topics from probability, statistics, and mathematical decision making with real-world application. Basic Skills 5 - Reasoning. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26Algebra, 31-College Algebra, or 31Trigonometry, or completed MATH 100B or a higher level math class.
MATH 130. Finite Mathematics (5). The language of sets, counting procedures, introductory probability, decision making, and introductory descriptive statistics. Meets General Education "reasoning" requirement and prepares student for introductory statistics courses in various
departments. Basic Skills 5 -
Reasoning. Prerequisites: either at least
500 on the SAT, 19 on the ACT, a
Compass test score of either 50-Pre-
Algebra, 26-Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.
MATH 153. Pre-Calculus Mathematics I (5). A foundation course which stresses those algebraic and elementary function concepts together with the manipulative skills essential to the study of calculus. Basic Skills 4 - Math. Prerequisites: either MATH 100C with a grade of C or higher; or a score of 18 or higher on the Intermediate Math Placement Test, or a score of 66 or higher on the Compass Algebra test.
MATH 154. Pre-Calculus Mathematics II (5). A continuation of MATH 153 with emphasis on trigonometric functions, vectors, systems of equations, the complex numbers, and an introduction to analytic geometry. Basic Skills 4 - Math. Prerequisites: MATH 153 with a grade of C or higher, a score of 17 or higher on the Advanced Math Placement Test, or a score of 46 or higher on the Compass College Algebra Test.
MATH 164. Foundations of Arithmetic (5). Structure of the real number system. Properties of and operations on integers, rationals, decimal representation, percentages, proportion, graphing, and elementary problem solving. Recommended for the prospective elementary school teacher.
Basic Skills 4 - Math. Prerequisites: 45 earned credits, and either at least a 500 on the SAT, a 19 on the ACT, or a score of 50 on the Compass test.
MATH 170. Intuitive Calculus (5). An intuitive approach to the differential and integral calculus specifically designed for students in the behavioral, managerial, and social sciences. Not open to students with credit for MATH 172 or higher. Basic Skills 4 - Math. Prerequisites: MATH 153 with a grade of C or higher or a score of 19 or higher on the Advanced Placement Test.
MATH 172. Calculus I (5). Theory, techniques, and applications of differentiation and integration of the elementary functions. Basic Skills 4 Math. Prerequisites: MATH 154 with a grade of C or higher, a score of 19 on the Advanced Math Placement Test, or a score of 46 or higher on the Compass Trigonometry test.
MUS 101. History of Jazz (5). History of artistic, cultural, and technological developments in jazz, focusing on
important players and performances. Introduction to fundamental musical concepts and methods; emphasis on active listening, social justice, current issues. Course will be offered every year (Fall, Winter, Spring). AHAesthetic Experience.
MUS 102. Introduction to Music (5). Landmark composers, styles, and works of Western music history from the Middle Ages to the present. Fundamental musical concepts (melody, harmony, rhythm, form, etc.) are emphasized to develop student understanding and listening skills. Course will be offered every year (Fall, Winter, Spring). AH-Aesthetic Experience.
MUS 103. History of Rock and Roll (5). History of Rock and Roll, America's second indigenous musical art form, after jazz. Emphasis placed on artists, music genres, and cultural/societal forces shaping rock's evolution, 1950s to present. Extensive listening, reading; required online discussion. Course will be offered every year (Fall, Winter, Spring). AHAesthetic Experience.

## NUTR 101. Introduction to Human

 Nutrition (5). Fundamental nutritional concepts as related to health. Four hours lecture and one hour discussion per week. Course will be offered every year (Fall, Winter, Spring, Summer). NS-Applications Natural Science.PHIL 101. Philosophical Inquiry (5). Introduces students to the basic concepts, questions, and methods of philosophical inquiry. Topics may include free will and responsibility, knowledge and skepticism, the nature of the divine, moral reasoning, and human rights and social justice. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Philosophies and Culture World (W).
PHIL 104. Moral Controversies (5). An introduction to moral reasoning through the study of current ethical problems. Topics may include abortion, capital punishment, consumerism, immigration, sexual ethics, killing in war, and/or torture. AH-Philosophies and Culture World (W). Formerly PHIL 210, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring).
PHIL 106. Asian Philosophy (5). Examination of selected classical and/or contemporary issues and questions in Chinese, Japanese and Indian philosophy. AH-Philosophies and Culture World (W). Formerly PHIL 209, students may not receive
credit for both. Course will not have an established scheduling pattern (Fall, Winter, Spring).
PHIL 150. Critical Thinking (5). This course will focus on informal logic: understanding and evaluating arguments in ordinary language. Students will learn to read, write, and think critically. Basic Skills 5 Reasoning.
PHIL 201. Introduction to Logic (5). Formal principles, methods and techniques for analyzing, constructing, and evaluating arguments. Topics include validity, soundness, truth tables, Venn diagrams, syllogisms, and logical symbolism. Basic Skills 5 Reasoning.
PHIL 306. Environmental Ethics (5).
An examination of various positions on the human relationship with the natural environment, from ancient and contemporary, western and nonwestern, as well as interdisciplinary perspectives. AH-Philosophies and Culture World (W). Prerequisite: sophomore standing or above.
PHIL 378. Philosophy of Love (5). A study of various concepts of love as they occur in philosophy, literature, and other cultural expressions. The nature of romantic love, eros, agape, friendship, and fellow feeling will be discussed. AH-Philosophies and Culture World (W). Prerequisite: sophomore standing or above.
PHYS 101. Introductory Astronomy I
(5). An inquiry-based introduction to celestial motions, celestial objects, observational astronomy and the physics associated with each. Emphasis on stars and planets. NS-Patterns and Connections Natural World (L). Course will be offered every year (Fall). Prerequisite: eligible to enroll in MATH 101. Student must have received at least a 500 on the SAT, or a 19 on the ACT or a score of 50 -PreAlgebra or 26-Algebra or 31-College Algebra or 31-Trigonometry on the Compass test or completed MATH 100B or a higher level math class.
PHYS 102. Introduction to Astronomy (4). An introduction to the physics of the bodies in our solar system with an emphasis on planets and the Sun. This course will include an emphasis how we observe the planets and Sun, current and past planetary missions, and the comparative evolution of bodies in our solar system. NS-Patterns and Connections Natural World (L).
PHYS 103. Physics of Musical Sound (5). Basic principles of acoustics applied to the production of sound by
musical instruments and the human voice. Related topics include musical scales, human hearing, sound synthesis, and recording technology. Class format emphasizes active learning. NS-
Applications Natural Science (L) (W). Course will be offered every year (Winter). Prerequisite: eligible to enroll in MATH 101.
PHYS 106. Physics Inquiry (5). An introduction to fundamental physics topics highlighting applications to the world around us. There will be an emphasis on learning by inquiry and on designing and critiquing solutions to real world issues. Course will be offered every year (Fall, Winter). NSFund Disc Phys and Biological Sciences (L).
PHYS 108. Light and Color (4). An introduction to topics in light and color with applications to technology in the arts. NS-Applications Natural Science (L).

PHYS 111. Introductory Physics I with Laboratory (5). An integrated experimental and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry-based activities and experimental investigation. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, and Summer). Prerequisite: PHYS 110 OR eligible to enroll in MATH 172 OR successful completion of a comprehensive year-long high school pre-calculus course, or equivalent, the year prior to enrollment in PHYS 111. Co-requisite: PHYS 110 OR concurrent enrollment in a comprehensive year-long high school pre-calculus course, or equivalent.
PHYS 181. General Physics I with Laboratory (5). An integrated experimental and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry-based activities and experimental investigation. Formerly PHYS 211, students may not receive credit for both. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, Summer). Co- or pre-requisite: MATH 172.

POSC 101. Introduction to Politics (5).
This course explores the meanings of power, political actors, resources of power and how they are being used for what purposes, under what ideological, institutional and policy processes affecting our quality of life. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior (W).
POSC 210. American Politics (5). Origin and development of the United States government; structure, political behavior, organizations, and processes; rights and duties of citizens. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on Cultures and Experiences of U.S.
POSC 270. International Relations (5). This course explores political issues and theories in international relations. This class will focus on issues of war and peace, international law and organization, foreign policy, diplomatic history, and international political economy. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on World Cultures (W).

PSY 101. General Psychology (5). The study of the basic principles, problems and methods that underlie the science of psychology, including diversity, human devleopment, biological bases of behavior, learning, sensation and perception, cognition, personality, and psychopathology. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior.
PSY 205. Psychology of Adjustment (5). The nature of the adaptive process and the means by which people adjust to their environment. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior (W).
RELS 101. World Religions (5). Survey of the major world religions (Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, Daoism), including their tenets, practices, and evaluation of the human condition. AHPhilosophies and Culture World (W).
SOC 101. Social Problems (5). An introduction to the study of contemporary issues such as poverty, military policies, families, crime, aging, racial, ethnic conflict, and the environment. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on Cultures and Experiences of U.S. (W).

SOC 107. Principles of Sociology (5).
An introduction to the basic concepts and theories of sociology with an emphasis on the group aspects of human behavior. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior (W).
SOC 109. Social Construction of Race (5). Exploration of the social construction of race from antiquity to modern day. How did the idea of race come about? How did it evolve? What have been the social consequences of the idea of race? Formerly ETS 101, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer). SB-
Perspectives on Cultures and Experiences of U.S. (W).
SOC 305. American Society (5). Introduction to the social structure and processes of American society; emphasis on institutions such as government, family, schools, and religion, and processes such as conflict, change, stratification, mobility, and communication. Course will be offered every year (Fall, Winter, Spring,
Summer). SB-Perspectives on Cultures and Experiences of U.S. (W).
Prerequisite: sophomore standing or above.
STEP 101. Scientific Perspectives and Experimentation I (2). First course in three-quarter freshman science series. Students will take an interdisciplinary approach toward scientific research centered on a single theme. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative Reasoning. Course will be offered every year (Fall). NS-Applications Natural Science. Prerequisite: enrollment in the STEP program or by permission.
STEP 102. Scientific Perspectives and Experimentation II (2). Second course in three-quarter freshman science series. Students gain practical introduction to the scientific process through designing and conducting experimental, computer, laboratory and/or field investigations. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative Reasoning. By department permission. Course will be offered every year (Winter). NSApplications Natural Science.
Prerequisites: STEP 101.

STEP 103. Scientific Perspectives and Experimentation III (1). Third course in three-quarter freshman science series. Topical survey of active research efforts by faculty and students in science, technology and mathematics fields at CWU. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative Reasoning. By department permission. Course will be offered every year (Spring). NS-Applications Natural Science (W). Prerequisite: STEP 102.
TH 101. Appreciation of Theatre and Film (4). Viewing, discussing, and comparing film and live theatre performance. Course will be offered every year (Fall, Winter, Spring). AHAesthetic Experience.
TH 107. Introduction to Theatre (4).
Overview of the basic elements of the theatre arts and dramatic structure, and the environment for production of plays. Attendance at assigned outside events is required. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Aesthetic Experience (W).

TH 375. Asian Drama (4). Survey of the traditional theatre, puppetry, and dancedrama forms of Asia. Historical development. Cultural and aesthetic aspects of the text in performance. Influence on contemporary world theatre. AH-Aesthetic Experience (W). Prerequisite: sophomore standing or above.

## TH 382. Diverse Experiences in

 American Drama (4). Study of contemporary American multi-cultural plays by people of color and other ethnic groups. AH-Aesthetic Experience (W). Prerequisite: ENG 101.UNIV 101. Transition to CWU (1). UNIV 101 is designed to foster a successful transition to CWU. This course will promote a sense of belonging and discovery, stimulate engagement in curricular and cocurricular activities, and connect students to campus resources. Course will be offered every year (Fall, Winter, Spring).
WGSS 201. Introduction to Women's, Gender, and Sexuality Studies (5). An interdisciplinary exploration how
gender and sexuality impact people's lives both historically and in contemporary society. Gender related issues are examined through social, political, economic, and cultural issues and processes influencing societies, communities, and individuals. SBPerspectives on Cultures and Experiences of U.S. (W). Meets the General Education writing requirement. Formerly WGS 201; students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer).
WGSS 250. Introduction to Queer Studies (5). An interdisciplinary introduction to queer studies, investigating the historical and contemporary reality of those who identify as gay, lesbian, bisexual, transgender, and/or queer. SBPerspectives on Cultures and Experiences of U.S. (W). Formerly WGS 250; students may not recieve credit for both. Course will be offered every year (Winter).

# College of Arts and Humanities 

Administration and Organization<br>Interim Dean<br>Todd Shiver, DMA (Hebeler Hall, room 202)<br>\section*{Interim Associate Dean}<br>Scott Robinson, MFA (Hebeler Hall, room 202)

Mail Stop 7518
509-963-1858
Fax: 509-963-1851
www.cwu.edu/arts/

## Overview

The College of Arts and Humanities (CAH) is comprised of 12 departments and programs, which represent the disciplines of the arts and humanities. All of the departments and some of the programs of CAH offer undergraduate degrees as well as minors which supplement other degree programs. Five departments offer Master's degrees. In addition to its role in providing degree programs, CAH is responsible for many of the course offerings of the general education programs as well as extensive service coursework for the entire university. The college also plays a major role in Central's teacher education programs, offering bachelors and master's degrees for students preparing to be secondary teachers and providing coursework in educational foundations and discipline-specific methods for teacher education majors. Building on a legacy of teaching excellence, college faculty are engaged in research, creative activities and service, involving students in the scholarship and practical applications of their various academic specializations, while making important contributions to the intellectual tradition and to society at large. There are no special requirements for admission to the college, but some departments have requirements that are described under the respective department and program headings in the catalog.

## Mission

The College of Arts and Humanities advances knowledge, promotes intellectual inquiry, and cultivates creative endeavor among students and faculty through teaching informed by scholarship, creative activity, and public and professional involvement. We are committed to helping students develop intellectual and practical skills for responsible citizenship and the challenges of contemporary life in a global society. The college offers disciplinary and interdisciplinary programs of the highest quality, acts as a steward of the foundational disciplines upon which all inquiry is based, and serves as a cultural center for arts and humanities for the university and the region.

## Vision

The College of Arts and Humanities will be recognized as a distinguished learning community known regionally for scholarly and creative excellence, innovative, and rigorous
foundational liberal arts education, and undergraduate and graduate programs that are outstanding and unique in the state.

## Departments and Programs

Africana and Black Studies: Bobby Cummings, PhD
(Michaelsen Hall, room 104)
Art and Design: Gregg Schlanger, MFA (Randall Hall, room 100)
Asian Studies: Michael Launius, PhD (Psychology Bldg., room 414)
Communication: Katharine Whitcomb, MA (Lind Hall, room 109B)
English: George Drake, PhD (Language and Literature Bldg., room 423)
Film Program: Jon Ward (Lind Hall, room 117E)
History: Roxanne Easley, PhD (Language and Literature Bldg., room 100)
Center Latino and Latin American Studies Program: Daniel
Beck, PhD (Science 1 Bldg., room 338) and Gilberto
Garcia, PhD (Psychology Bldg., room 414)
Music: Nikolas Caoile, DMA (Jerilyn S. McIntyre Music Building, room 144)
Philosophy and Religious Studies: Matthew Altman, PhD
(Language and Literature Bldg., room 337)
Theatre Arts: Christina Barrigan, MFA (McConnell Hall, room 106)
World Languages and Cultures: Michael Johnson, PhD
(Language and Literature Bldg., room 102)

## College of Business

## Administration and Organization

Dean
Kathryn Martell, PhD (Shaw-Smyser Hall, room 129)

## Associate Dean

Jeffrey Stinson, PhD (Shaw-Smyser Hall, room 126)
Mail Stop 7487
509-963-1955
Fax: 509-963-3042
www.cwu.edu/business

## Vision

CWU's College of Business will be recognized as a premier learning community creating an environment in which students, faculty, and staff reach their full potential.

## Mission

We launch students toward a better future by engaging them in industry-relevant and student-centered programs driven by strong partnerships between students, faculty, and business professionals.

## Our Shared Values

The faculty and staff of the CB share a set of core beliefs and commitments.

## We believe in: <br> - Student success

- Lifelong learning
- Integrity and ethical behavior
- Excellence


## We commit ourselves to:

- Prepare students for the future
- Impart knowledge on which students can build
- Treat everyone with respect and fairness
- Exemplify our values by serving as teachers and role models
- Maintain currency in our academic disciplines and professional fields
- Engage in scholarly activities that contribute to the body of knowledge in our disciplines


## Statement of Conduct

The College of Business is a learning community committed to a set of core values based on integrity, respect, and responsibility that guide our interactions.

Integrity: The quality of possessing and steadfastly adhering to high moral principles or professional standards.

Respect: To show consideration or thoughtfulness in relation to others.

Responsibility: The state, fact, or position of being accountable and responsible.

## Code of Honor

As College of Business students we pledge to uphold these standards of professionalism and conduct ourselves in accordance with them. We will not lie, cheat, or steal, and will not tolerate those who do. Our behavior defines who we are and what we will become.

## Programs

The College of Business offers programs leading to the Bachelor of Science degree in the following areas:

- Bachelor of Science, Accounting
- Bachelor of Science, Business Administration with specializations in:
Finance
General Business
Human Resource Management
Leadership and Management
Marketing Management
Personal Financial Planning
Supply Chain Management
- Bachelor of Science, Economics with specializations in:

Economic and Business Forecasting
General Economics
Managerial Economics

- Bachelor of Science, Personal Financial Planning
- Bachelor of Applied Science, Supply Chain Management

The College of Business offers minors in:
Accounting
Business Administration
Entrepreneurship
Finance
Human Resource Management
Sport Business
Supply Chain Management

The College of Business offers certificate programs in:

Accounting<br>Sport Business<br>Supply Chain Management

Students may take their junior and senior years of the accounting and business administration programs at two Puget sound-area centers: Lynnwood and Des Moines.

## Admission Requirements

Admission requirements to major programs within the College of Business are identical regardless of the location of the program. Students must first be accepted by the university and, if applicable, the university center which they plan to attend. Then, students must formally apply to the College of Business and be admitted to a College of Business Program prior to enrolling in 300- and 400-level courses within the college.

Students must attend a College of Business major declaration session to be fully admitted to our majors. Applications are only accepted at new student major declaration sessions. The application form must be completed and returned to the appropriate office along with copies of current transcripts.

Students must have the below requirements to be admitted to a College of Business major. Students seeking entry to the College without these requirements will be granted premajor standing.

- Completion of 30 credits (If a student is a transfer student, credits must be transferable)
- The applicant must be in good academic standing
- $\quad$ 2.25 Collegiate GPA
- Completion of ENG 101 and ENG 102 with a Cor higher, or equivalent
- Attend a College of Business Major Declaration Session
International students whose native language is not English must meet one of the following English proficiency requirements:
- A score of 71 or above on the Internet-based TOEFL or 525 or above on the paper-based

TOEFL (195 for computer based, 71 for internet based), OR

- A score of 6.0 or above on the International English Language Testing System (IELTS) exam, OR
- A 3.0 (B grade) or above in each two collegelevel English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.
Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive, based on a selection index.


## Previous or Transfer Coursework Policy

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made, but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.

Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Students who intend to pursue the CPA may instead decide to use the NABSA (National Association of State Boards of Accountancy) international evaluation services since it is a requirement of the CPA. Credits for current students participating in a CWU study abroad program will be evaluated by the Office of the Registrar.

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the foundation course requirements for any BS degree in the college. Upperdivision (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Academic Jeopardy Policy

The College of Business is committed to the success of its students. If a student that has been admitted to the College of Business is deemed to be in academic jeopardy, the College of Business may place restrictions on the student. A student is considered in academic jeopardy for the following reasons:

- On academic warning or probation
- Frequently withdraws from class
- Repeating coursework to be successful
- Has less that a 2.5 (2.499 and below) in any of the required GPAs for graduation.

CWU GPA

- Collegiate GPA (CWU and all transfer coursework combined)
- Major GPA
- Upper-division coursework in the major GPA
- Accounting majors: upper-division Accounting coursework GPA

The College of Business may do the following in response to an Academic Jeopardy situation:

- Limit College of Business coursework in future quarters
- Require academic advising with both faculty and/or professional advisors
- Require academic success plans
- Double majors or double specialization students may be limited to one major plan in the College of Business
If a student is unable to improve academically while receiving intensive advising and support or does not actively participate in required advising, the student may be subjected to the College of Business Separation Policy.


## Separation Policy

If a student that has been admitted to the College of Business is placed on academic warning, probation, suspension, has repeat academic course withdrawals, or academic performance below the necessary grade point averages required to graduate, then the student's admission into the College of Business may be rescinded. Students may also be rescinded for violations of the College of Business Statement of Conduct and Code of Honor, or for engaging in Prohibited Student Conduct as defined by Washington Administrative Code (see WAC 106-125-020). Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented at least 30 days prior to the start of the quarter in which readmission is desired. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

Students majoring in programs outside CB who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other noncollege majors wishing to enroll in courses. All students must have taken prerequisites for courses prior to enrollment.

## Repeat Policy

Business administration courses may be repeated only once.

## Departments and Programs

Accounting: Kenneth Smith (Shaw-Smyser Hall, room 340)

Economics: Toni Sipic (Shaw-Smyser Hall, room 428)
Finance and SCM: Carlo Smith (Des Moines Center, room 373)

Management: William Provaznik (Shaw-Smyser Hall, room 333)

# College of Education and Professional Studies 

## Administration and Organization

## Dean

Paul Ballard, EdD (Black Hall, room 228)
Associate Dean
Gregory Schwab
Executive Director of the School of Education
Ronald B. Jacobson, PhD (Black Hall 101-7)

## Contact Information

509-963-1411
Fax: 509-963-1049
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www.cwu.edu/education-professional-studies
The mission of the College of Education and Professional Studies (CEPS) is to prepare competent, enlightened citizens who will enhance their respective professions, commit themselves to socially responsible leadership, and help develop the global economy in a spirit of cooperation. Each academic unit of the college has developed specific goals to address this mission.

Graduates of the College of Education and Professional Studies programs are Professionally Prepared and Profession Ready, or P3R. Graduates enter the job force right after graduation and make an immediate positive impact on their profession.

## School of Education

The School of Education programs at CWU are all about preparing students to enter the greatest profession in the world.... Teaching! Our Education programs approach learning in a supportive and positive environment where students and staff share responsibility for knowledge, and where students and staff value working and learning together. Graduates enter their teaching positions after graduation and make an immediate positive impact on the students they teach.

CEPS facilitates communication between and among the respective disciplines that contribute to the preparation of educators, including teachers, school administrators, and school psychologists. Supporting the mission, purpose, and governance structure of CEPS is the constructivist philosophy-a belief that knowledge is actively created by learners and made meaningful when learners relate new information to prior knowledge.

The School of Education Teacher Preparation Program is administered through CEPS. Admission to the university does not guarantee admission into the School of Education

Teacher Preparation Program. Students must apply to the School of Education Teacher Preparation Program and meet specific application criteria before being admitted. For more information about the Teacher Certification process, link to www.cwu.edu/teacher-certification/.

## Professional Studies

The Professional Studies at Central Washington University strives to deliver innovative applied science and technology programs that develop competent globally responsible citizens who contribute to their respective professions. The vision of Professional Studies at CWU is to be recognized as a premier learning community dedicated to providing relevant and authentic learning experiences.

College of Education and Professional Studies programs value:

- Students
- Excellence in teaching
- A rigorous academic and learning environment
- The preparation of students for successful careers
- Accreditation and industry standards
- Applied research
- Creative, diverse and innovative ideas
- Open, collaborative environments
- Partnerships with external constituents
- The use of current technology
- Professionalism, integrity, and responsible citizenship
- Life balance

For more information about the Departments and Programs, go to the departments listed below.

The Department of Aerospace Students (AFROTC). CWU's Air Force ROTC detachment is designed to recruit, educate and commission officer candidates with a mission of developing quality leaders for the Air Force.

The Department of Aviation is a regional leader in professional aviation education, attracting individuals with a passion for the combined art and science of flight. Established in 1975, it is the only fully accredited public university aviation program in the Pacific Northwest. The Department offers B.S. degrees in Aviation Management and Professional Pilot and has a stellar reputation for preparing students for the demands of the industry.

The Department of Curriculum, Supervision, and Educational Leadership houses the Professional Education Program (PEP), Field Experiences, Instructional Foundations undergraduate degree, and Master Teacher Graduate Program. They also have master level degrees in School Administration, Instructional Leadership and Higher Education.

The Department of Education, Development, Teaching and Learning (EDTL) is committed to ensuring graduates are prepared to be outstanding educational leaders and facilitators of learning who demonstrate the knowledge and
skill necessary to educate and work within a diverse school population. EDTL offers programs for teacher candidates interested in developing educational $\mathrm{pK}-12$ specialties in Bilingual Education/Teaching English as a Second Language; Literacy (reading, writing, speaking, and listening); and Special Education. Each program leads to an endorsement for the Washington State teaching certificate.

The Department of Engineering Technologies, Safety, and Construction Management offers Bachelor of Science degree programs in Construction Management, Safety and Health Management, Mechanical and Electrical Engineering Technologies, and Technology Education. The department also offers a Master's of Science Degree in Engineering Technology.

## The Department of Family and Consumer Sciences

 offers degree programs in: Apparel, Textiles and Merchandising; Business and Marketing Education; Family and Consumer Sciences Education; Family Studies; Global Wine Studies; and Recreation, Tourism and Event Management. The department offers a graduate Master of Science with specializations in Family Studies and Career and Technical Education and is the home of the International Sustainable Development Institute.The Department of Information Technology and Administrative Management (ITAM) offers high demand undergraduate and graduate programs blending technical skills with soft skills in the areas of Administrative Management, Information Technology, Web and Database Management, Retail Management Technology, Network Management, Project Management, and Cybersecurity. Degree programs are offered on campus, hybrid, $100 \%$ online, and self-paced competency based. Find out more: www.cwu.edu/it-management.

The Department of Military Science (AROTC) houses the Army ROTC program at CWU. The mission of the Wildcat Battalion is to recruit, educate, coach, mentor and commission outstanding scholars, athletes and leaders inspired for service in our nation's Army.

The Department of Health Sciences prepares students in a variety of professions that focus on the physical and functional abilities of humans including clinical physiology, exercise science, nutrition and dietetics, public health and paramedicine.

The Department of Physical Education, School Health and Movement Studies. Graduates in this department are prepared to enter careers as physical education and school health teachers. With master level degrees in Health and Physical Education with a specialization in Athletic Administration.

## Department Chairs

Aerospace Studies (AFROTC): Mark L. Meier, Lt.
Colonel, USAF (Lind Hall 202-B)
Aviation: Sundaram Nataraja, EdD (Black Hall, room 2251)

Curriculum, Supervision, and Educational Leadership: Ian

Loverro, PhD (Black Hall, room 214-11)
Education, Development, Teaching and Learning: M.
Katherine Reynolds, EdD (Black Hall, room 204-28)
Engineering Technologies, Safety and Construction:
Sathyanarayanan Rajendran, PhD (Hogue Hall, room 107)
Family and Consumer Sciences: Duane Dowd, PhD
(Michaelsen Hall, room 100)
Information Technology and Administrative Management:
Robert Lupton, PhD (Shaw-Smyser Hall, room 203)
Military Science (AROTC): Jonathan Ackiss, Lt. Colonel (Lind Hall 207-E)
Health Sciences: Ethan Bergman, PhD RDN (Dorothy Purser Hall, room 114)
Physical Education, School Health and Movement Studies: Heidi Henschel-Pellett, EdD (Dorothy Purser Hall, room 114)

# College of the Sciences 

Administration and Organization<br>Dean<br>Tim Englund, PhD (Dean Hall, room 130)

## Associate Dean

Mike Harrod, PhD (Dean Hall, room 130)

## Associate Dean

Martha Kurtz, PhD (Dean Hall, room 130)

## Staff

Brad Weekly, development officer
Velma Henry, administrative assistant
Janis Orthmann, administrative assistant
Toni Snowden, program coordinator
Dannica Price, event coordinator
Mail Stop 7519
509-963-1866
www.cwu.edu/sciences
The College of the Sciences (COTS) is comprised of 13 departments and 12 interdisciplinary programs representing disciplines in the behavioral, natural, and social sciences, and mathematics. The departments and programs of the college offer undergraduate baccalaureate degrees, master's degrees, minors that supplement other degree programs, and a comprehensive range of service coursework. As an essential part of its mission, the college offers an extensive general education curriculum. The departments play a major role in Central's Teacher Certification Programs, offering bachelors and master's degrees for students preparing to be secondary teachers and providing coursework in educational foundations and disciplinespecific content and methods.

Departments within the college are committed to teaching excellence, active engagement by faculty in research, scholarship and professional service activities, student involvement in research, community service, and
employing practical applications of academic specializations.

## Departments

All departments offer baccalaureate degree programs and, in some cases, minors, educational specialist degrees and master's degrees. In addition to consulting
department/program headings in this catalog, students are encouraged to contact individual departments and program offices directly.

Anthropology and Museum Studies: Lene Pedersen, PhD, Dean Hall, room 356, 509-963-3211
Biological Sciences: James Johnson, PhD, Science
Building, room 338, 509-963-2731
Chemistry: Anthony Diaz, , PhD, Science Building, room 302, 509-963-2811
Computer Science: Christos Graikos, PhD, Hebeler Hall, room 219, 509-963-1495
Geography: John Bowen, PhD, Dean Hall, room 301, 509-963-1188
Geological Sciences: Chris Mattinson, PhD, Science II, room 129, 509-963-2701
Law and Justice: Paul Knepper, PhD, Farrell Hall, room 317, 509-963-3219
Mathematics: Stuart Boersma, PhD, Bouillon Hall, room 108, 509-963-2103
Physics: Andy Piacsek, PhD, Science II, room 138 , 509-963-2727
Political Science: Paul Knepper, PhD, Psychology
Building, room 413, 509-963-2408
Psychology: Stephanie Stein, PhD, Psychology Building, room 421, 509-963-2381
Science Education: Jennifer Dechaine, PhD, Science II, room 301, 509-963-2929
Sociology: Eric Cheney, PhD, Farrell Hall, room 409, 509-963-1305

## Interdisciplinary Programs

These programs offer specialized coursework, interdisciplinary baccalaureate majors or minors, master's degrees or research, and public service functions.

American Indian Studies: Patrick McCutcheon, PhD, Dean Hall 340, 509-963-2075
Craft Brewing: Steve Wagner, PhD, Science Building, Room 236K, 509-963-1378
Environmental Studies: Pam McMullin-Messier, PhD, Farrell Hall, room 441, 509-963-2222
Interdisciplinary Studies - Social Sciences: Alena
Yastchenko, MA, Deccio 215, 509-963-3607
Museum of Culture and Environment: J. Hope Amason, PhD, Dean Hall, room, 509-963-3209
Primate Behavior and Ecology Program: Lori Sheeran, PhD, Dean Hall, room 335, 509-963-1434
Resource Management Program: Patrick McCutcheon, PhD Dean Hall, room 340, 509-963-2075 and Jennifer Lipton, Dean Hall, room 322 , 509-963-1164
Science Talent Expansion Program (STEP): Marth Kurtz, PhD, Dean Hall, room 130. 509-963-2622
Women's and Gender Studies: Judith Hennessey, PhD,

Farrell Hall, room 436, 509-963-1574

## Affiliated Centers and Institutes

Center for Spatial Information and Research: Anthony Gabriel, PhD, Dean Hall, room 320, 509-963-1166
Center for the Environment: Pam McMullin-Messier, PhD, Farrell Hall, room 441, 509-963-2222
Central Washington Archaeological Survey, Anthropology: Patrick McCutcheon, PhD, Dean Hall, room 340, 509-9632075 or Steve Hackenberger, PhD, Dean Hall, room 349, 509-963-3224
Community Counseling and Psychological Assessment Center: Heath Marrs, PhD, Psychology Building, room 346, 509-963-2349
or Elizabeth Haviland, PhD, Psychology Building, room 118, 509-963-2371
Geodesy Laboratory and Pacific Northwest Geodetic Array (PANGA) Data Analysis Facility: Tim Melbourne, PhD, Science II, room322C, 509-963-2799

# School of Education 

College of Education and Professional Studies<br>School of Education<br>Ellensburg<br>Black Hall, room 101<br>www.cwu.edu/programs/school-education

## Executive Director

Ron Jacobson, PhD

## Interim Associate Director

Crystal Weddington

## School of Education General Information

The School of Education is administered through CEPS and the School of Education Executive board. The provost/vice president for academic and student life in collaboration with the CEPS dean appoints faculty to serve on the advisory council, which advises the School of Education Executive board on program policies.

## Admission Requirements

Admission to the university does not guarantee a student admission into the School of Education. Students must be fully admitted to the School of Education in order to enroll in Education-related courses.

The processing of applications takes time. To insure the thorough review of an application, it is required that all application materials for admission to the School of Education be submitted by the following dates: For Ellensburg campus programs-winter, October 1; spring, January 1; summer, April 1; fall, April 1. For university center programs-please contact the university center.
(All application forms are available online at www.cwu.edu/teacher-certification)

1. A 3.0 grade point average (GPA) for at least the last 45 graded quarter credits (the total may exceed 45 if an entire quarter is needed to achieve the minimum 45) or overall CWU/transfer cumulative is required for full admittance into the School of Education. A 2.8 GPA for at least the last 45 graded quarter credits or overall CWU/transfer cumulative will be considered for conditional admittance into the School of Education. A 3.0 GPA for at least the last 45 graded quarter credits or overall CWU/transfer cumulative is required prior to making application to student teaching.
2. Completed APPLICATION FOR ADMISSION TO SCHOOL OF EDUCATION.
3. Completed Character and Fitness supplement. Answering "YES" to any question on the form will require that you meet with the Certification

Officer prior to a decision regarding admission. All court documents should be submitted prior to that meeting. False answers to the questions on the form may result in denial of program admission and/or certification.
4. Official or unofficial transcripts for all college/university coursework must be submitted directly to the School of Education. These transcripts are in addition to transcripts submitted to Registrar Services.
5. Successful completion of ENG 101, ENG 102, and one of either MATH 101, 153, 154, 164,170, or 172 or FIN 174.
6. Submission of the Dispositional Survey. Once you activate your LiveText account, you are automatically sent the Dispositional Survey. It is located in your Forms box in LiveText. Once you complete the survey, click the submit button. Please call 509-963-2660 if you have any questions.

1. Successful completion of the Basic Skills (Reading, Writing, and Math) requirement. Candidates may satisfy this requirement by passing the WEST-B or obtaining certain scores on the SAT and/or ACT. Please see below:

| Subject <br> (Basic Skill) | WEST-B | SAT Score | ACT Score |
| :---: | :---: | :---: | :---: |
| Math | PASS | 515 or higher | 22 or <br> higher |
| Reading | PASS | 500 or higher | 22 or <br> higher |
| Writing | PASS | 490 or higher | 8 or higher |

## WEST-B Test

The WEST-B exam is administered statewide several times each year. Registration information and test dates can be found online at www.west.nesinc.com.

Note: Failure to begin the program within one year from date of acceptance may result in cancellation of admission.

The completed application packet needs to be submitted to the following address by the appropriate deadline date: School of Education, College of Education and Professional Studies, Central Washington University, 400 East University Way, Ellensburg, WA 98926-7414.

Please be aware that:
No grade lower than a $C$ in major or minor, and foundation coursework, will be accepted for certification.

To remain in the program, students must maintain a 3.0 GPA for the last 45 graded quarter credits or overall CWU/transfer cumulative.

Each applicant for admission to the School of Education
will be notified in writing of the status of his or her application.

Completion of the School of Education does not guarantee certification by the state of Washington. In order to be certified, the candidate must demonstrate good moral character and personal fitness as defined by WAC 180-79A-155. Current fingerprint clearance from the Washington State Patrol and FBI will be required prior to application for any practicums, all courses that require any type of field experience or working with P 12th grade children, EFC 330 - Field Experience, and/or EFC 480 - Student Teaching. If you have anything from your past that you think may compromise your certification, please seek advisement from the Certification Officer at 509-963-2660 prior to submitting your application.

School of Education admission regulations are administered by the College of Education and Professional Studies. Personal folders are maintained in the School of Education for each student enrolled in a teaching program at Central.

## Transfer Students

Students entering the university with a transferable associate of arts (AA) degree from an accredited Washington community college will need to meet the admission requirements for the School of Education prior to enrolling in any education courses. These students are frequently surprised to find that, after finishing two years of community college, they have more than two years left to complete an education degree. This is because the AA degree required 90 credits and, when transferred to CWU, satisfies only the Basic and Breadth requirements, which can generally be completed in 60 credits at CWU. Community college students can make good use of the additional 30 credits required by the AA by selecting courses at the community college which may meet major, minor, or, in some cases, courses in the Professional Education Program. Check your community college's equivalency sheet to make certain your courses are equivalent to CWU's courses for these particular requirements.

## National Evaluation Series (NES) Exam

As of July 1, 2014, all teachers wishing to obtain certification must take the NES exam in each content area for which they seek endorsement prior to student teaching. Documentation (i.e., registration confirmation, test scores) that the student has registered for a test date that occurs prior to student teaching must be submitted to the School of Education prior to applying for student teaching. Final certification will not be awarded until successful completion of the NES exam is earned. Test information and registration is online at www.nestest.com.

## Alternative Admissions Procedures to the School of Education

Students who do not have the required grade point average, or who do not pass portions of the WEST-B test may apply
for provisional admission to the School of Education by alternative means.

## PROCEDURE

1. Applications will be made in writing to the Candidate Admissions, Recruitment, and Retention Committee (CARR) in care of the Certification Officer. The deadline for application will be the first Friday of the quarter preceding the quarter admission is desired (fall quarter applicants deadline will be the first Friday of spring quarter.) The written application will include the following:
a. A letter from the applicant's major advisor that supports the following:

- Applicant's academic ability, service experience, growth, commitment, and motivation
- Potential for graduate study (following graduation from the undergraduate program)
- Potential for success in working with diverse groups
- Other criteria appropriate to the applicant's potential as a teacher
- Other extenuating circumstances that may have affected the applicant's grades and test scores
b. One supporting letter from a former employer, supervisor, or other individual knowledgeable of the applicant's experiences in working with young people
c. A personal essay by the applicant that describes his or her educational goals and objectives

2. An interview with the Candidate Admissions, Recruitment, and Retention committee (CARR) may be required.
3. Those admitted will be monitored on a quarterly basis by the CARR committee, and will meet all admission requirements prior to student teaching.
4. Students who have been admitted to the School of Education via the CARR committee will receive personal guidance to facilitate completion of their undergraduate degrees and receipt of their certificates.
5. For further information, contact the Certification Officer at 509-963-2660.

## Graduation/Certification Requirements for the School of Education

- No grade lower than a C in major, minor, and professional education foundation courses
- Minimum GPA of 2.5 in major, minor, and professional education foundation courses
- Minimum GPA of 3.0 for last 45 graded quarter credits (the total may exceed 45 if an entire quarter is needed to achieve the minimum 45) or overall CWU/transfer cumulative.
- Passing scores on the NES and/or WEST-E exam.
- Passing scores on the edTPA.


## Major and Minor Concentrations

The following majors offered at CWU, may lead to
Washington state approved endorsements. Students should contact the departments to request information about major requirements.

## Endorsable Majors

Biology: Teaching Major
Chemistry: Teaching Major
Early Childhood Education Major
Earth Science Teaching Major
Elementary Education Major
English/Language Arts: Teaching Major
Family and Consumer Sciences Career and Technical
Education Teaching Major
History: Social Studies Teaching Major
Mathematics: Teaching Secondary Major
Middle Level Humanities Major
Middle Level Mathematics Teaching Major
Middle Level Science Teaching Major
Music: Broad Area Specialization
Music: Choral Music Specialization
Music: Instrumental Music Specialization
Physical Education and School Health
Physics Major (BA)
Special Education P-12 Major
Technology Education Broad Area Major
Technology Education Major
The following minors offered at CWU, may lead to Washington state approved endorsements. Students should contact the departments to request information about requirements.

## Endorsable Minors

Bilingual Education/Teaching English as a Second
Language Minor
Biology Teaching Secondary Minor
Chemistry Teaching Minor
Dance Teaching Minor
Early Childhood Education Minor
Literacy Minor
Physics Minor
School Library Media Studies Minor
Science Education: Broad Area Science Teaching Minor
Teaching English as a Second Language Minor
Traffic Safety Education Minor

## Certification

Central is in compliance with the Every Student Succeeds Act (ESSA).
CWU is accredited by the Northwest Commission on Colleges and Universities (NWCCU). NWCCU is recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the regional authority on educational quality and institutional effectiveness of higher education institutions in the sevenstate Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

CWU's School of Education is approved by the state of Washington's Professional Educators Standards Board and
the Office of Superintendent of Public Instruction to offer programs, which lead to teacher certification. To be awarded Washington certificates, candidates must be at least 18 years of age.

Graduates of the School of Education are legally qualified for certification in states, which are party to the interstate certification compact.

## Residency Certificate

The residency-teaching certificate is normally awarded simultaneously with the bachelor's degree. Individuals who hold, or have held a residency-teaching certificate and are enrolled in a professional certificate program, may have the certificate renewed for an additional two years upon verification the individual is enrolled in a professional certificate program.

## Professional Certificate (Pro Teach Program)

The Pro Teach Portfolio is an evidence-based assessment designed for teachers seeking the Washington professional certificate. Teachers who hold a residency certificate must meet the passing score set on the Pro Teach Portfolio (determined by the Professional Educators Standards Board) in order to earn their professional certificate. The Pro Teach Portfolio evaluates teachers on their ability to impact student learning as stated in the 3 standards-effective teaching, professional development and professional contributions-- and 12 criteria for the professional certificate approved by the Professional Educator Standards Board (PESB). Visit www.waproteach.org/index.html for more information.

To maintain the continuing (professional) certificate, each person must complete 150 clock hours of approved inservice education and/or 15 college or university credits every five years.

## Endorsement-only Program

CWU's endorsement-only program is available to certified teachers who hold the Washington State initial, residency, or continuing teaching certificate and who wish to add a teaching endorsement to their certificate. Teachers interested in obtaining an endorsement from CWU should obtain an application online at www.cwu.edu/teacher-certification/endorsement-programs. Once an application and transcripts are submitted, a credit evaluation will be completed.

To qualify for an endorsement to teach in more than one specialization, students must meet the requirements for each specialization.

## Certification Only

Candidates with a bachelor's degree who desire certification must follow the guidelines for admission to the School of Education. Certification-only students may earn the residency-teaching certificate by satisfactorily completing the professional foundation courses and at least one college endorsement program. Final approval of the college endorsement program lies with the individual's content area.

## Alternative Pathway to Teaching Program

## General Information

Washington has a shortage of teachers in the areas of special education, English language learners, mathematics, and the sciences. While the need for these teachers is widespread across the state, some districts have difficulty recruiting and retaining high-quality teachers. Merely preparing more teachers is not the answer to meet current demands. The solution is to address teacher placement and retention.

The online APT program is inquiry-based. Throughout the year, you will complete and implement pieces of evidence for an online portfolio using case studies, chat rooms, and discussion boards. A co-teaching model is used for your internship. You will begin your internship supporting the classroom teacher, and as your skills build, the roles gradually reserve. You will complete a series of transitions that conclude with the submission of a portfolio and passing the teacher performance assessment (edTPA).

You begin the program with a ten-day intensive "boot camp" held on the main CWU campus in Ellensburg. This "boot camp" occurs the first two full weeks after the Fourth of July every year and is taught by university faculty from across the CWU Education Departments. Featured seminars include orientation to teaching, classroom management, exceptional learners, lesson planning, assessment, culturally relevant teaching practices, and English Language learners, to name a few.

After the boot camp, you complete a mentored internship in a school close to where you live. This mentored internship progresses so that you assume more and more responsibility for lead instruction and culminates in six weeks of student teaching. You proceed through the mentored internship at your own pace, completing a minimum of 720 field experience hours (combined observation and teaching), in your endorsement area(s). Most teacher candidates spend a full year in their internship, dedicating the first quarter to observation, the second quarter to guided instruction or teaching a short lesson segment, the third quarter to teaching one class or prep, and spending the fourth quarter student teaching full time. This progression is flexible and is developed in concert with a university field supervisor and your mentor teacher.

During the internship, you complete online course work designed to supplement the learning that occurs during your school day. You will be asked to complete focused observations, write reflections, read case studies around various education topics, write your own case study, conduct video conferences with peers in your cohort, and more generally, critically reflect on your process of learning to teach.

A capstone of the program is the successful completion of the edTPA, a statewide requirement for certification. Modeled after the National Board Examination, the edTPA asks you to prepare a learning segment, videotape your teaching of that segment, and then reflect on your teaching practice.

## Credits and Course Work

Completion of the program will confer twenty-four (24) quarter credits.

Summer
ECTL 470: Teaching Seminar (3 cr)
ECTL 480: Curriculum Planning ( 3 cr )
Fall ECTL 490: Internship (6 cr)
Winter ECTL 490: Internship ( 6 cr )
Spring ECTL 490: Internship ( 6 cr )

## Choosing your Internship Route

CWU's APT program offers three internship routes in order to accommodate diverse levels of education and experience. Candidates in each of these three internship routes must already hold a bachelor's degree from a regionally-accredited university.

## Route 2:

- As an applicant, you currently work as an instructional aide or paraprofessional. In this route, you remain employed by your school district in your IA or Parapro role but gradually assume more and more responsibility for lead instruction. You and the lead teacher adopt more co-teaching roles. Route 2 applicants are advised to consult with their school district before applying.


## Route 3:

- As an applicant, you are a mid-career professional or someone who has decided to change his/her career. You work alongside a mentor teacher in an unpaid internship and are placed into your internship after receipt of your application materials, and prior to the start of the summer "boot camp". It is recommended that Route 3 applicants indicate school district placement preferences upon application to the program. It is also recommended that Route 3 applicants spend some time in the year prior to entering the program observing one or more teachers in a potential placement district.


## Route 4:

- As an applicant, you have been hired on a contractual basis with a school district to teach as the teacher of record in an area of need. Your district has extended a conditional or emergency license (also termed a limited teaching certificate) to you, and you have a window of time to earn your initial teaching residency license. As an APT candidate, you are assigned a mentor teacher who works with you, but not alongside you, as you have your own classroom of students. More information about the contracted conditional and emergency license types is provided here: http://www.k12.wa.us/certification/teacher/l imited.aspx\#contracted. It is recommended that Route 4 applicants consult with their school district before applying.


## Admission Requirements

- Applicants must complete a bachelor's degree from a regionally accredited institution prior to enrollment in the CWU-Alternative Pathways to Teaching-Online Program. Degrees attained from foreign institutions must be translated and evaluated for U.S. equivalency by an accredited agency.
- Attained a cumulative GPA of 2.50 or higher from all college coursework.
- Complete the application to the Alternative Pathways to Teaching-Online Program.
- Complete a post-baccalaureate application to Central Washington University.
- Submit official transcript(s) from ALL previous colleges or universities attended. All transcripts must be sent directly from the school to CWU Admissions Office.
- Submit a resume.
- Submit two letters of recommendation.
- Submit passing scores from the Washington Educator Skills Test - Basic (WEST-B). Candidates may also satisfy this requirement if they have scored high enough on the SAT or ACT. Please see the chart below:

| Subject <br> (Basic Skill) | WEST-B | SAT Score | ACT Score |
| :---: | :---: | :---: | :---: |
| Math | PASS | 515 or higher | 22 or <br> higher |
| Reading | PASS | 500 or higher | 22 or <br> higher |
| Writing | PASS | 490 or higher | 8 or higher |

- Complete an interview. You will be contacted by the Alternative Pathways to Teaching-Online Program Manager to schedule an interview time.
- Submit a passing score on the WEST-E and/or NES exam in your content area. (Information on the exam can be found online at www.nestest.com).
- Submit a completed Character and Fitness Form. If you have any yes answers on the form, you must contact the CWU Certification Office at 509-963-2660 to schedule an appointment to discuss the yes answer(s).
- Have current WSP and FBI fingerprint clearance (verified through the OSPI Fingerprint Database by the CWU School of Education).

Please contact the APT Program Manager at 509-963-2433 or Jesslyn.Hollar@cwu.edu if you have any questions.

## Recency of Coursework

Education courses may not be older than 10 years at the time of graduation/ certification.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/programs/schooleducation or by contacting the department directly.

# Office of Continuing Education 

The Office of Continuing Education provides lifelong learning opportunities in support of the university mission. The unit offers a variety of credit, non-credit, training, and enrichment courses and programs.

Please NOTE:

- All Continuing Education courses, certificates, degrees, and services are offered on a self-support basis, and may be canceled if adequate enrollment is not reached.
- Waivers for veterans, university staff, senior citizens, and others do not apply. However, student financial aid can be applied to credit courses.
- Full fee-paying students must make additional payments at the rate established for each continuing education course in which they enroll.
- Tuition for some Continuing Education courses is higher than regular CWU tuition. Additional course fees may also apply.

Please visit us on the Web at www.cwu.edu/ce or call 509-963-1504 for complete information on the following programs:

## ACADEMIC PROGRAMS

## Craft Brewing Certificate

Are you a homebrewer? Or looking for a career change into the exciting world of the craft brewing industry? The Craft Brewing Certificate is a year-long, 16 -credit interdisciplinary program that provides an overview of biochemistry, microbiology, technology, and business aspects of the craft brewing industry. Offered in partnership with the College of the Sciences, this program spans three quarters ( 30 weeks), meets every other weeknight evening, and is designed to be challenging and interactive. Students learn about all aspects of the brewing industry from production, distribution, marketing and operation of a brewery by using a variety of approaches including lab work, hands on experience, lectures, field trips, and industry speakers. Graduates of the certificate have gone on to work in all aspects of the craft brewing world - from masterbrewers to marketing professionals to opening their very own breweries. The Certificate program is designed to aid students who have a passion for brewing to become skilled brewers, entrepreneurs and seasoned professionals while responding to an industry that is growing like never before.

For more information, please visit www.cwu.edu/ce or email craftbrewing@cwu.edu.

## UNIV 304 and GIVE International Excursions

Through cultural immersion and experiential learning in an international setting, students will engage in activities designed to broaden their perspectives on sustainable development while providing opportunities for personal growth. Students will apply critical thinking skills, field observations, and reflective processing to explore and reveal the contextual impacts and opportunities associated with international sustainable development projects.

Content is delivered via a hybrid course that has an online component and an international immersion component through partnership with GIVE Excursions. A pin number for accessing the online course will be provided once the student is registered. The course begins prior to departure and concludes after your return.

For more information, please visit CE Collaborations at www.cwu.edu/ce.

## CAREER TRAINING AND DEVELOPMENT

## Online Certificates - Non-credit

Are you looking to start a new career or gain skills to advance in your current one? The Office of Continuing Education, in partnership with ed2go, offers online, open enrollment courses and programs designed to provide the skills necessary to acquire professional level positions for many in-demand occupations.

You can start these career training programs anytime and work at a pace that suits your individual style. You will have access to all the lessons and assignments from day one, and many of these programs can be completed in less than six months. Instructors are actively involved in your online learning experience. They respond to questions and concerns, as well as encourage and motivate you to succeed. Upon completing your program with a passing score, you will get a certificate of completion.

Please NOTE: Many of these programs are approved by the Workforce Training Board and are eligible to receive funding from the Workforce Investment Act (WIA). For a list of approved courses, visit the Washington Career Bridge website at www.careerbridge.wa.gov and search the Eligible Training Provider List for online programs at Central Washington University, Ellensburg.

For a full list of our current offerings, please visit Career and Professional at www.cwu.edu/ce.

## Online Courses - Non-credit

Looking to get ahead in your career? These six-week, online, professional development courses are the perfect way to learn a new skill or enhance your existing ones. You will spend roughly two to four hours each week completing two engaging lessons in an enjoyable, interactive learning environment. Expert instructors develop and lead every course, and you will be able to interact with them and with fellow students in lively online discussion areas. New sessions start every month, so you can sign up
anytime. Upon completing a course with a passing score, you will receive a certificate of completion.

For a full list of our current offerings, please visit Career and Professional at www.cwu.edu/ce.

## Seminars and Workshops - Non-credit

These face to face courses are available each quarter and are designed to enhance and strengthen your business operations or your personal career development. Upon completion of each seminar or workshop, continuing education units (CEU's) will be issued. Course topics are timely, taught by experienced instructors, and offer professionals and businesses convenient, affordable options for training. Course topics include Microsoft Excel, Leading across generational differences, Social media strategy, and more.

For a full list of our current offerings, please visit Career and Professional at www.cwu.edu/ce.

## PROGRAMS FOR EDUCATORS

## Alternate Pathways to Teaching Program

Washington has a shortage of teachers in the areas of special education, English language learners, mathematics, and the sciences. While the need for these teachers is widespread across the state, some districts have difficulty recruiting and retaining high-quality teachers. Merely preparing more teachers is not the answer to meet current demands. The solution is to address teacher placement and retention.

The online APT program is inquiry-based. Throughout the year, you will complete and implement pieces of evidence for an online portfolio using case studies, chat rooms, and discussion boards. A co-teaching model is used for your internship. You will begin your internship supporting the classroom teacher, and as your skills build, the roles gradually reserve. You will complete a series of transitions that conclude with the submission of a portfolio and passing the teacher performance assessment (edTPA).

You begin the program with a ten-day intensive "boot camp" held on the main CWU campus in Ellensburg. This "boot camp" occurs the first two full weeks after the Fourth of July every year and is taught by university faculty from across the CWU Education Departments. Featured seminars include orientation to teaching, classroom management, exceptional learners, lesson planning, assessment, culturally relevant teaching practices, and English Language learners, to name a few.

After the boot camp, you complete a mentored internship in a school close to where you live. This mentored internship progresses so that you assume more and more responsibility for lead instruction and culminates in six weeks of student teaching. You proceed through the mentored internship at your own pace, completing a minimum of 720 field experience hours (combined observation and teaching), in your endorsement area(s).

Most teacher candidates spend a full year in their internship, dedicating the first quarter to observation, the second quarter to guided instruction or teaching a short lesson segment, the third quarter to teaching one class or prep, and spending the fourth quarter student teaching full time. This progression is flexible and is developed in concert with a university field supervisor and your mentor teacher.

During the internship, you complete online course work designed to supplement the learning that occurs during your school day. You will be asked to complete focused observations, write reflections, read case studies around various education topics, write your own case study, conduct video conferences with peers in your cohort, and more generally, critically reflect on your process of learning to teach.

A capstone of the program is the successful completion of the edTPA, a statewide requirement for certification. Modeled after the National Board Examination, the edTPA asks you to prepare a learning segment, videotape your teaching of that segment, and then reflect on your teaching practice.

For more information, please visit School of Education or Career and Professional at www.cwu.edu/ce.

## Online Courses - Non-credit

Numerous professional development classes are available year round through online learning in partnership with VESi (Virtual Education Software). Course topics are timely, taught by experienced instructors, and offer PK-12 teachers convenient, affordable options for professional development (500) credit or clock hours. Course topics include classroom management, special education, bilingual education, health and safety management, teaching strategies, technology in schools, and more.

For a full list of our current offerings, please visit Career and Professional at www.cwu.edu/ce.

## Seminars and Workshops - Non-credit

Professional development classes are available each quarter through in-service and distance learning. Course topics are timely, taught by experienced instructors, and offer PK-12 teachers convenient, affordable options for professional development (500) credit or clock hours. Course topics include classroom management, special education, bilingual education, health and safety management, teaching strategies, technology in schools, and more.

For a full list of our current offerings, please visit Career and Professional at www.cwu.edu/ce.

## LIFE AND LEISURE

## Courses - Non-credit

These fun, open to the public offerings range from recreational activities like fly fishing and hiking to beer tastings and bus trips to local wineries and breweries. Categories of classes include Outdoor Recreation and

Fitness; Bus Tours and Day Trips; Food, Wine, and Beer; and Art, Culture, and History.

For a full list of our current offerings, please visit Lifelong Learning at www.cwu.edu/ce.

## Online Learning

The Office of Multimodal Learning seeks to assure that Central Washington University maintains the highest standards of excellence in online learning and is recognized regionally and nationally for offering outstanding online programs that provide increased access of educational opportunities to diverse, place-bound, traditional, and nontraditional students.

Online offerings at CWU are meant to:

- provide more flexible access to content and instruction for learners who are unable to attend traditional face-to-face offerings
- provide greater educational course and program selection for students
- improve time-to-degree completion by offering students greater course scheduling flexibility
More information about online learning at CWU is available on the web at: www.cwu.edu/online-learning.


## ONLINE LEARNING POLICIES

## Admission

Students interested in entering an online program may submit an application at www.cwu.edu/admissions. Once admitted to the university, students must also apply for their online major.

## Registration

Continuing students follow the same procedures as noted in the registration part of this catalog. Students may register via MyCWU, phone, or in person during their assigned enrollment appointment. Non-matriculated students may register for classes on a space-available basis during open enrollment.

## Advising

Online students are encouraged to visit the Online Student Resource Center webpage at www.cwu.edu/student-achievement/online-student-resource-center to explore all the advising resources and services available. General transfer advising is available by e-mailing onlineadvisor@cwu.edu and specific program advising is available by contacting your faculty advisor. A list of advisors for the online programs is available on the web at: www.cwu.edu/online-learning/online-programs-list. Final official transcripts must be received for articulation of all transfer courses.

Tuition
See current tuition rates and fees or refer to the Registrar Services home page at www.cwu.edu/registrar. Continuing

Education courses are offered on a self-support basis. The self-support tuition schedule is separate from full-time tuition and fees. Visit the Continuing Education web site at www.cwu.edu/ce. Tuition and fees are subject to change.

## Student Services

Questions regarding services that accommodate physicaland learning-disabled students can be directed towards Disability Services at DS@cwu.edu. CWU also offers career counseling through our Career Services office. They can be contacted by e-mailing career@cwu.edu. Tutoring is available for some subjects, including math and writing. Students can e-mail onlinetutoring@cwu.edu for additional information.

Financial Aid
Students enrolled in an online program are eligible to apply for financial aid. You can apply online at www.fafsa.ed.gov.

For more information about financial aid, visit www.cwu.edu/financial-aid. All students must submit the Free Application for Federal Student Aid (FAFSA) to begin the process.

## Veterans

Information on veterans benefits is available through the Veterans Center on the Ellensburg campus by calling 509-963-3028 or by e-mailing va@cwu.edu.

## Library

Access to library services is available to students enrolled in the online programs through the CWU Brooks Library, which is available by logging on to www.lib.cwu.edu. Assistance in acquiring reference materials may also be obtained by calling 800-290-3327. On-site library resource centers are also located at CWU- Ellensburg, CWU-Des Moines, and CWU-Lynnwood.

## Textbooks

Textbooks may be purchased through the Wildcat Shop at wildcatshop.net/.

Final Exam Schedule
Online Learning final exam dates can be different from the Ellensburg or Center campus schedule. Please review your syllabus and confirm with your instructor for the appropriate date and, if applicable, time.

## Qualifying States Disclaimer

Central Washington University has authorization to deliver online degree programs to out-of-state students. Please check www.cwu.edu/online-learning/out-of-statestudents for a list of authorized states. If you reside in a state not listed, you are ineligible at this time for admission into an online degree program offered at CWU.

## ONLINE LEARNING PROGRAMS

## Online Graduate Degree Programs

EdS School Psychology (Hybrid)
MA English: Professional and Creative Writing
MEd Higher Education
MEd Literacy
MEd Master Teacher
MEd School Administration
MEd Special Education
MS Health and Physical Education
MS Athletic Administration (Hybrid)
MS Health and Physical Education (Hybrid)
MS Information Technology and Administrative
Management

## Online Undergraduate Degree Programs

BS Aviation Management
BS Business Administration
BA English: Professional and Creative Writing
BS Information Technology and Administrative Management

- Administrative Management Specialization
- Administrative Management Specialization
(FlexIT Competency Based)
- Cybersecurity Specialization
- Retail Management and Technology

Specialization

- Retail Management and Technology

Specialization (FlexIT Competency Based)
BAS Information Technology and Administrative
Management

- Administrative Management Specialization
- Cybersecurity Specialization
- Information Technology Specialization

BS Interdisciplinary Studies: Social Sciences
BA Law and Justice
BS Paramedicine (Hybrid)
BA Psychology
BS Public Health
BS Social Services
BA Sociology

## Online Minors

Accessibility Studies Minor
Administrative Management Minor
Anthropology Minor
Cybersecurity Minor
Family Studies Minor
Human Resources Management Minor
Information Technology Minor
Latino and Latin American Studies Minor
Law and Justice Minor
Library and Information Science Minor
Non-Profit Organization Management Minor
Project Management Minor
Psychology Minor
Public Health Minor
Retail Management and Technology Minor
School Library Media Studies Minor

Sociology Minor
Sports Business Minor

## Online Certificates/Endorsements

Accessibility Studies Certificate
Administrative Management Certificate
Cybersecurity Certificate
English Language Learner Endorsement
Global Literacy Development Certificate
Information Technology Certificate
Library Media Endorsement
Non-Profit Organization Management Certificate
Project Management Certificate
Retail Management and Technology Certificate
Teacher Certification (Hybrid)

## High School Partnerships

## College in the High School/Cornerstone

Central Washington University's College in the High School/Cornerstone program is a cooperative partnership between school districts across the state of Washington and CWU. The program allows high school students to take CWU courses from their approved high school instructors without leaving their high school campus. Students benefit from the academic challenges of college course work and find that the experience helps to clarify their educational goals. The College in the High School/Cornerstone program can also help ease with the transition from high school to college, and provide students with a unique opportunity to take on more academic responsibility.

Courses are taught by high school teachers who have been approved as non-tenure track faculty by the appropriate CWU academic departments. High school teachers work closely with CWU faculty liaisons to ensure that the materials taught in the high school are equivalent to a course taught on the university campus. CWU faculty liaisons provide high school teachers with syllabus development, curriculum, and the necessary support to help assure that the College in the High School/Cornerstone students are experiencing the same academic rigor as those who are taking classes on any CWU campus. The College in the High School and Cornerstone programs act the same in obtaining college credit but there are some key differences financially.

College in the High School courses are paid for by the State of Washington. The Office of Superintendent of Public Instruction (OSPI) provides funding for those schools that have applied and qualified. This state funding is only available for 11th and 12th grade students in schools that have been awarded the subsidy.

Cornerstone courses are privately paid, whether that be the student/family, the school district, or an outside
organization. Students are able to take Cornerstone courses at the same time as College in the High School courses, although students are only allowed to take 15 credits per grading term through both Cornerstone and College in the High School. Students who are in the 10th, 11th, and 12th grades are eligible under Cornerstone.

Students interested in participating in College in the High School/Cornerstone should speak with their high school counselor or administrator to find out what CWU classes are available at their school.

For more information, visit us at www.cwu.edu/runningstart/students or call 509-963-1351.

## Running Start

Central Washington University welcomes eligible high school juniors and seniors to participate in the Running Start program at Ellensburg and Sammamish. Students enrolled in the Running Start program are able to take college courses tuition-free during the fall, winter, and spring quarters. Public, home, and private school students are all encouraged to apply.

The credits earned from these courses apply to Central Washington University general education and major requirements and are generally transferable to other colleges and universities, while also satisfying high school requirements. Students may enroll simultaneously in high school and college courses, or exclusively in college courses. Participating in the Running Start program allows Running Start students the opportunity to take a wide range of courses from CWU faculty and gain the experience of a traditional college student while also enjoying the support of their family, high school, and local community.

## Admission Requirements:

- Applicants with a 3.4 cumulative GPA or higher will automatically be admitted.
- Applicants with a 3.00-3.39 cumulative GPA will be considered for admission based on grades AND test scores.
- Applicants with a 2.00-2.99 cumulative GPA will be considered through CWU's Running Start Admission Review Process. In this process, we consider grade trends, course rigor, and test scores.
- Homeschool students are evaluated on an individual basis and must submit both homeschool transcripts and appropriate test scores.
- To be considered for admission, students must have at least a 2.00 cumulative GPA in high school and any applicable college work.
- CWU does not require an essay at the time of application. If during the review process we feel additional information will be helpful, we will request it.


## Placement Testing

In order to register for a particular class, students must meet the eligibility requirements as stated in the CWU Course Catalog. Requirements usually vary between classes, but two common requirements are either successfully passing previous course work and/or placement testing. Appropriate test scores include Smarter Balance, Accuplacer, ACT, SAT, and ALEKS. Please see the CWU College Catalog for a full listing of appropriate placement tests and scores.

CWU offers students the option to take the ACT Residual and Accuplacer English and Math Placement tests at the Ellensburg campus. Accuplacer testing is available at the Sammamish campus. Students who are unable to schedule testing at a CWU location are welcome to submit test scores from other colleges.

- ACT Residual is an on-campus ACT test available to students who are unable to test during the national test dates. ACT Residual is intended for students who are applying to CWU and the scores are only reported to CWU for admission, course placement, and advising purposes. Students taking the ACT Residual will not be able to send their results to other colleges. The ACT Residual is offered once a month in Ellensburg.
- Accuplacer is a computer-based test designed to assist accurate placement into appropriate courses for Math and English. Accuplacer offers tests in reading, writing, and math. You will receive your test results immediately upon completion of testing, and your score report will include placement messages informing you what courses you should take.
- Students in the Ellensburg area should check for available dates using the "Schedule a Test" link on the testing website (www.cwu.edu/testing).
- Students in the Sammamish area should contact CWU Sammamish at 509-963-3690 to schedule the Accuplacer test.
- The Running Start office can pay for testing at CWU if a student meets criteria for the Running Start Book Loan and Testing Fee Waiver program. Please see below for details. If you qualify for this program, you need to submit your application to the Running Start office before scheduling your test.
Please note that CWU does not use ACT, SAT, or Smarter Balance test scores for placement into pre-calculus or calculus math courses. Students wanting to enroll in Math 153 (Pre-Calculus I) will need one of the following: one year of high school calculus with a grade of B or higher, or an Accuplacer College Math score of 35 or higher, or ALEKS score of $51 \%$ or higher.


## Advising and Registration

Each quarter (fall, winter, and spring), Running Start students will be able to register online after attending an advising appointment with the Running Start advisor. Students should review the quarterly calendar to determine when their registration assignment and the quarterly schedule will be available. Registration assignments are not advising appointments. They are the earliest day that registration will open for a particular student.

Once a student has determined when they will be able to register, they should view the quarterly schedule and plan which courses they want to take. Because registration is based on seniority, some courses may no longer be available by the time a particular student can register. Therefore, students should plan 2 to 3 different schedules that will work for their high school requirements and college goals.

After choosing possible schedules, students should schedule an appointment to meet with their high school counselor to review high school requirements and fill out the Running Start Enrollment Verification Form (RSEVF). This form is due each quarter. Students will not be permitted to register until a signed and completed RSEVF is turned in to the Running Start office. The high school has the final word on which CWU courses will fulfill high school graduation requirements. (Homeschool students are not required to complete state high school graduation requirements. They are, however, required to complete the RSEVF each quarter prior to enrolling.)

Students are welcome to schedule an appointment for advising any time between the beginning of advising and the last day of registration. Students should, however, meet with their high school counselor and fill out the RSEVF before attending a Running Start advising appointment. At the advising appointment, the student and advisor will discuss course selections, how these fit into the student's academic goals at CWU or other institutions, and review the student's academic progress.

The Running Start advisor is also available to meet with students to discuss applying to CWU and other institutions, academic degree planning, referrals to other resources on campus, help with selecting a major, scholarship resources, and navigating college life. Once the student meets with the Running Start advisor, they will be released to register and will be able to register for their courses online through their MyCWU account during their assigned enrollment period.

Students will be notified about advising, registration, and other important dates via their CWU email accounts. Students are expected to check their CWU email on a regular basis (daily) so that they do not miss important information from the Running Start office, other services on campus, and their instructors. Students who are unsure of how to access their email or MyCWU account are welcome to stop by the Running Start office in Ellensburg (Hebeler 122) or Sammamish (main office) for assistance.

Please keep in mind that Running Start funding is only available for the fall, winter, and spring quarters. Students wishing to enroll in summer courses at CWU must obtain permission from the Registrar's Office and pay full tuition.

## Benefits and Challenges

There are a number of benefits afforded to students who participate in the Running Start program, but students can also encounter some challenges. As you make the important decision about applying to the Running Start program, please keep the following in mind.

## Benefits:

- Students have the opportunity to take courses that may not be offered at their local high schools.
- Academically prepared students have an opportunity to take college level courses.
- Students have an opportunity to experience university education while in high school. This experience may be helpful in making the transition from home to college, self-assessing college readiness skills, and in informing future education plans.
- Students can earn up to two years of tuition-free college credit during the fall, winter, and spring quarters, saving many dollars in college education.
- It is not uncommon for students who have strong college readiness skills, yet have difficulty fitting-in the traditional high school setting, to flourish in a different educational setting such as college.
- In college, high school students have the opportunity to gain academic and career maturity and knowledge from participating within the challenge of a college setting and with other college students.
- Running Start students are eligible to take part in college activities, with the exception of intercollegiate athletics.
- Students can get a "Running Start" on completing a college degree including general education requirements and prerequisites to a college major.
- Students may still participate in any high school extracurricular activity, if time permits and consistent with Washington Interscholastic Athletic Association (WIAA) rules of eligibility.
- Students who have transferred between high schools and have incurred credit difficulties may find that Running Start can help them meet graduation requirements on time.
- Financially, this is the best scholarship a student can earn. Consider the worth of each college class completed.
- First time freshmen with CWU enrollment prior to high school graduation through CWU Cornerstone, CWU College in the High School, or Running Start at CWU will be given a $\$ 500$ tuition award, provided they have earned a 3.00
cumulative GPA or higher in their CWU courses. Note: Students must be admitted by February 1 and submit a FAFSA for their freshman year to receive the tuition waiver.


## Challenges:

- Some students who are academically qualified may not be ready socially or emotionally for the college environment. They may find the independence and speed of college classes overwhelming. Maturity is one of the key ingredients needed for success in Running Start.
- High schools provide a social network and social development experiences for teenagers. This network is not as readily available at the college level as it is in the high schools. However, Running Start students may participate in student activities at the college, such as clubs.
- Students are not guaranteed space in preferred college classes, and college schedules may conflict with high school classes or extracurricular activities (sports, drama, music, etc).
- CWU operates on a quarter system, which may be different from the high school academic calendar. Holidays and vacation periods are frequently different. Students are expected to attend classes at the university even though their high schools may not be in session. Careful planning must occur in order to avoid conflicts in family and school activities.
- College courses move at a much faster pace than high school courses. A class that may take a semester or year at the high school will be completed in ten weeks at the university.
- The high school is the final authority on high school graduation requirements. It is important to work closely with a high school counselor to insure graduation requirements will be met. Some schools may not allow students to participate in graduation ceremonies if their college classes are not completed by the date of graduation. Check with the high school for their policies.
- Students and their families are responsible for tuition costs above 1.2 combined high school and college FTE. For a student taking a full load at the college ( 15 credits) he/she might be eligible to be in only one class in their high school. It is the student and family responsibility to understand these limitations and carefully plan his/her educational program.
- College classes are designed for adult learners. Contemporary issues of our society will be actively discussed in our classrooms. The content of classes will not be censored for younger students.
- The high school determines students' eligibility to be involved in high school activities. Being away from the high school might mean that students are out of the loop for some things, such as
activity requirements or scholarship application deadlines.
- The program is not free. Tuition is covered up to 1.2 combined high school and college FTE over fall, winter, and spring quarters. Students must pay for mandatory college fees, books, online course fees, campus parking, gas, supplies, and other related costs. Students wishing to enroll in summer courses must receive permission from the Registrar's Office and pay full tuition.
- Students start a college transcript when they take their first college class. It will stay with them throughout their college careers. If students perform poorly, it may jeopardize future college plans. These grades will transfer back to the high school transcript as well.
- There is much less contact between colleges and parents than the high schools and parents.
- College offers a much less structured environment with more independent study required. The speed at which college classes are taught is much faster than classes in high school. College classes typically demand approximately 2 hours of homework for each hour of class, with no classroom time for homework.
- Communication concerning grades and attendance is more frequent in high schools.


## Tuition, Fees, and Other Costs

- Students may take up to 15 tuition-free credits per quarter (fall, winter, and spring).
- The number of tuition-free credits a student is eligible for depends on how many classes the student takes at the public high school.
- Students may enroll in additional credits, but are required to pay the remaining tuition.
- Students are responsible for technology and course fees. Course fees range depending on what course the student enrolls in. A listing of course fees is available here: www.cwu.edu/registrar/courses-additional-fees.
- Students are responsible for paying for testing, textbooks, transportation, and other supplies.


## Testing Fee Waiver and Book Loan Program

The Running Start office can waive testing fees and provide loaned books to eligible low-income students on a first-come, first-served basis. Students are required to return loaned textbooks to the Running Start office at the end of each quarter. The Running Start program will do its best to help students with at least one textbook a quarter. However, books are not guaranteed due to limited funding and textbook availability. Books that cannot be reused are not purchased.

Running Start students must meet one of the following criteria to qualify:

- Family receives public assistance (example: SSI, TANF, Basic Food/QUEST, Washington State medical coupons).
- Student is eligible to receive free or reduced lunch at their school district, or has been eligible within the last five years.
- Student is a foster youth.
- Student's primary caregiver is currently receiving unemployment

For more information, visit us at www.cwu.edu/runningstart/new-students or call 509-9631351.

## Degrees Offered (Majors, Minors, Certificates)

Accessibility Studies Certificate

Accessibility Studies Minor
Accounting Certificate
Accounting Major, BS
Accounting Minor
Actuarial Science Major, BS
Administrative Management Minor or Certificate
Adventure Leadership Minor
Advertising Minor
Aerospace Studies Minor
Africana and Black Studies Minor
American Indian Studies Minor
American Sign Language Minor
Anthropology Major, BA (45 Credits)
Anthropology Major, BA (62 Credits)
Anthropology Major, BS
Anthropology Minor
Apparel Design Minor
Apparel, Textiles and Merchandising Major, BS
Apparel, Textiles and Merchandising Minor
Applied Computer Science Minor
Applied Mathematics Major, BS
Art BFA, Graphic Design Specialization
Art BFA, Studio Art Specialization
Art History Minor
Art Major, BA
Art Studio Minor
Asia University America Program (AUAP)
Asian Business Minor
Asian Studies Major, BA
Asian Studies Minor
Astronomy Minor
Aviation Management BS, Aviation Management
Specialization
Aviation Management BS, Maintenance Management Specialization
Aviation Management Minor
Aviation Professional Pilot Minor
Aviation: Professional Pilot BS, Commercial Pilot Specialization
Aviation: Professional Pilot BS, Flight Officer
Specialization

Bilingual Education/Teaching English as a Second Language Minor
Biology BS, Biology Teaching Specialization
Biology BS, Biomedical Science Specialization
Biology BS, Ecology and Evolutionary Biology
Specialization
Biology BS, General Biology Specialization
Biology BS, Molecular and Cell Biology Specialization
Biology Major, BA
Biology Minor
Biology: Teaching Secondary Minor
Business Minor (FSCM)
Business Administration BS (BSBA), Finance
Specialization
Business Administration BS (BSBA), General Business
Specialization
Business Administration BS (BSBA), Human Resource
Management Specialization
Business Administration BS (BSBA), Leadership and
Management Specialization
Business Administration BS (BSBA), Marketing
Management Specialization
Business Administration BS (BSBA), Personal Financial
Planning Specialization
Business Administration BS (BSBA), Supply Chain
Management Specialization
Business Analytics Minor or Certificate
Business and Marketing Education Major, BS
Business Minor (MGT)
Captive Primate Care Certificate
Career and Technical Education Certificate
Career and Technical Education Program
Chemistry Major BS, Biochemistry Specialization
Chemistry Major, BA
Chemistry Major, BS
Chemistry Minor
Child Development Certificate
Child Development Minor
Chinese Minor
Cinema Studies Minor
Clinical Physiology Major, BS
Communication Minor
Communication Studies Major, BA
Computer Science Major, BS
Computer Science Minor
Construction Management Major, BS
Construction Safety Minor
Craft Beer Trade Certificate
Craft Brewing, BS
Creative Writing Minor
Cybersecurity Minor or Certificate
Dance Major, BA
Dance Performance Minor (PESHMS)
Dance Performance Minor (TH)
Digital Forensics and Incident Response (DFIR) Minor or Certificate
Digital Journalism Major BA, Broadcast Journalism
Specialization
Digital Journalism Major BA, Journalistic Writing and
Reporting Specialization
Douglas Honors College
Dual-degree Physics/Engineering Program

Early Childhood Education Major, BA
Early Childhood Education Minor
Economics BS, Economic and Business Forecasting
Specialization
Economics BS, General Economics Specialization
Economics BS, Managerial Economics Specialization
Economics Minor I
Economics Minor II
Educating Highly Capable Learners Minor
Electronics Engineering Technology Major, BS
Elementary Education Major, BA
EMS Paramedicine Major, BS
Energy Studies Minor
English Language and Literature Major, BA
English Language and Literature Minor
English Language Arts Teaching Major, BA
English Professional and Creative Writing, BA
Entrepreneurship Minor
Environmental Geological Sciences Major, BS
Environmental Sciences BS, Environmental Biology

## Specialization

Environmental Sciences BS, Environmental Chemistry
Specialization
Environmental Sciences BS, Environmental Geography
Specialization
Environmental Sciences BS, Environmental Geology
Specialization
Environmental Sciences BS, Environmental Policy
Specialization
Environmental Studies Minor
Ethics Minor
Ethnic Studies Minor
Event Management Minor
Exercise Science Major, BS
Exercise Science Minor
Family and Child Life Major BS, Child Life Specialization
Family and Child Life Major BS, Family Science
Specialization
Family and Consumer Sciences Career and Technical
Education Teaching Major, BS
Family and Consumer Sciences Education Minor
Family and Consumer Sciences Major, BA
Family and Consumer Sciences Minor
Family Science Minor
Film Major, BA
Film Production Minor
Finance Minor
Food Science and Nutrition BS, Dietetics Specialization
Food Science and Nutrition BS, Foods and Nutrition
Specialization
Food Service Management Minor
Forensics Certificate
French Major, BA
French Minor
Geographic Information Systems (GIS) Certificate
Geography BS, Environmental and Resource Geography
Specialization
Geography BS, GIScience Specialization
Geography Major, BA
Geography Minor
Geology Major, BA
Geology Major, BS

Geology Minor
German Minor
Global Cultural Training Certificate
Global Literacy Development Certificate
Global Wine Trade, BS
History Major (Large Plan), BA
History Major (Small Plan), BA
History Minor
History Social Studies Teaching, BA
Human Resource Management Minor
Individual Studies
Industrial Engineering Technology Major, BS
Industrial Technology Minor
Innovation through IT Minor or Certificate
Instructional Foundations, BA
Integrated Energy Management BS, Integrated Energy
Business Specialization
Integrated Energy Management BS, Integrated Energy
Policy Specialization
Integrated Energy Management BS, Integrated Power
Systems Specialization
Interdisciplinary Honors Minor
Interdisciplinary Studies-Social Sciences, BS
International Studies Minor
International Theatre Experience Certificate
ITAM BAS, Administrative Management Specialization
ITAM BAS, Cybersecurity Specialization
ITAM BAS, Information Technology Specialization
ITAM BAS, Project Management Specialization
ITAM BS, Administrative Management Specialization
ITAM BS, Cybersecurity Specialization
ITAM BS, Network Administration and Management
Specialization
ITAM BS, Project Management Specialization
ITAM BS, Retail Management and Technology
Specialization
ITAM BS, Web and Database Administration and
Management Specialization
Japanese Major, BA - Large Plan
Japanese Major, BA - Small Plan
Japanese Minor
Jazz Studies Certificate
Latin American Business Certificate
Latino and Latin American Studies Minor
Law and Justice Major, BA
Law and Justice Minor
Lean Six Sigma Greenbelt Certificate
Library and Information Science Certificate
Library and Information Science Minor
Linguistics Minor
Literacy Minor
Mathematics Major, BS (Large Plan)
Mathematics Major, BS (Small Plan)
Mathematics Minor
Mathematics: Middle-Level Education, BA
Mathematics: Secondary Education, BA
McNair Scholars Program
Mechanical Engineering Technology Major, BS
Middle-level English Minor (Non-Endorsement)
Middle-level Humanities Teaching Major, BA
Middle-level Social Studies Minor (Non-Endorsement)
Military Science Minor

Modern IT Applications Minor or Certificate
Museum Studies Minor
Music Composition Major, BM
Music Education Major BM, Broad Area Specialization
Music Education Major BM, Choral Music Specialization
Music Education Major BM, Instrumental Music
Specialization
Music Major, BA
Music Minor
Music Performance Major BM, Keyboard Specialization
Music Performance Major BM, Percussion/Wind/String
Specialization
Music Performance Major BM, Vocal Specialization Musical Theatre, BFA
Non-profit Organization Management Certificate (COM)
Non-profit Organization Management Minor (COM)
Nutrition Minor
Organizational Communication Minor
Personal Financial Planning Certificate
Personal Financial Planning, BS
Philosophy Major, BA (50 or 60 credits)
Philosophy Minor
Physical Activity and Recreation Programming Minor
(FCS)
Physical Activity and Recreation Programming Minor
(PESHMS)
Physical Education - Dance Minor
Physical Education - Dance: Teaching Minor
Physical Education and School Health Major, BS
Physical-Rehabilitation Therapy Minor
Physics Major BS, Biophysics Specialization
Physics Major, BA
Physics Major, BS
Physics Minor
Political Science Major, BA (47 credits) (62 credits)
Political Science Minor
Pre-Chiropractic
Pre-Dental Hygiene
Pre-Dentistry
Pre-Dietetics
Pre-Engineering
Pre-Law
Pre-Medical Technology
Pre-Medicine
Pre-Nursing in Public Health
Pre-Occupational Therapy
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Pre-Respiratory Therapy
Pre-Veterinary
Primate Behavior and Ecology Major, BS
Professional Education Program
Professional Sommelier Certificate
Professional Tax Minor or Certificate
Professional Writing Certificate (COM)
Professional Writing Certificate (ENG)
Program Development Minor
Project Management Minor or Certificate
Psychology Major, BA (45 credits)
Psychology Major, BA (60 credits)
Psychology Minor

Public Health BS, Population Health Specialization
Public Health BS, Pre-Nursing Specialization
Public Health Minor
Public Policy BS
Public Relations Major, BA
Radio Broadcasting Certificate
Recreation, Tourism and Events BS, Event Management
Specialization
Recreation, Tourism and Events BS, Recreation
Management Specialization
Recreation, Tourism and Events BS, Tourism Management
Specialization
Religious Studies Major, BA (50 or 60 credits)
Religious Studies Minor
Retail Management and Technology Minor or Certificate
Risk Management Minor
Robotics and Automation Minor
Russian Studies Major, BA
Russian Studies Minor
Safety and Health Management Major, BS
Safety and Health Management Minor
Science Education - Broad Area Science Teaching Minor
Science Education K-8 Minor
Science Talent Expansion Program (STEP)
Science: Middle-Level Education, BA
Screenwriting Minor
Social Services Major, BS
Social Services Minor
Sociology Major, BA (45 credits)
Sociology Major, BA (60 credits)
Sociology Minor
Spanish Major, BA
Spanish Minor
Spanish Translation and Interpretation Certificate
Special Education (P-12) Broad Area Major, BAEd
Special Education (P-12) Major, BAEd
Special Education Minor
Sport Business Certificate
Sport Business Minor
Sport Coaching Minor
Sport Management BS, Recreation Management

## Specialization

Sport Management BS, Sport Business Specialization
Sport Management BS, Sport Coaching Specialization
STEM Teaching Program
Structures of Data Analytics for IT Managers Minor or
Certificate
Study Abroad and Exchange Programs (SAEP)
Supply Chain Management Certificate
Supply Chain Management Minor
Supply Chain Management, BAS
Sustainable Tourism Minor
Teaching English as a Second Language (TESL) Minor
Technical Writing Minor
Technology Education Broad Area Major, BS
Technology Education Major, BS
Theatre Arts Minor
Theatre Design and Production, BFA
Theatre Education, BFA
Theatre Performance, BFA
Theatre Studies, BA
Tourism Management Minor

Traffic Safety Education Minor
University and Enrichment Program
University English as a Second Language Program (UESL)
Web Design and Management Minor or Certificate
Wine Trade and Tourism Minor

Wine Trade Professional Certificate
Women's, Gender, and Sexuality Studies Minor
Women's, Gender, and Sexuality Studies, BA
Yearlong Exploration of Social Sciences Program (YESS)

## Accounting Department

College of Business
Ellensburg (E)
Shaw-Smyser Hall, room 327
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7484
509-963-3340
Fax: 509-963-2875
www.cwu.edu/accounting
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff <br> Chair

Kenneth Smith, PhD, CPA, (L)
Shaw-Smyser Hall, room 340

## Professors

Marvin L. Bouillon, PhD, (E)
Robert E. Holtfreter, PhD (E)

## Associate Professors

Kenneth A. Smith, PhD, CPA (L)
James H. Thompson, PhD, (D)
Ke Zhong, PhD (L)

## Assistant Professor

Fabio Ambrosio, JD/LLM, CPA/ABV/PFS, CFP, EA, CVA (D)
Clemense E. Ehoff, Jr., PhD, CPA (E)

## Senior Lecturers

Melissa Becker MBA (E)
Jenny Cravens, MAC, CPA (E)

## Staff

Lisa Woods, secretary

## Department Information

We help our students learn foundation knowledge and skills in accounting and business that will aid them in private, government, or non-profit careers or prepare them for additional education for public accounting careers.

The Department of Accounting will allow non-matriculated students in their classes under the following conditions:

Post-baccalaureate students who have a business degree from an AACSB-accredited program in the United States, or

Current students who are enrolled at another AACSB-accredited program in the United States.

These requests will be addressed on a space-available basis and will need the permission of the Accounting Chair. If you meet either of the above criteria, please e-mail the Accounting classes
you desire (including the course location: Ellensburg, Lynnwood, or Des Moines) and an unofficial transcript to the Chair of the Department of Accounting. The Chair will then prepare the necessary paperwork for admission into the course.

## Graduation Requirements

To graduate with an accounting degree, the department requires a cumulative grade-point average of at least 2.0 for in-the-major upper-division accounting courses completed at CWU, in addition to the university grade-point average requirements that apply to all CWU major programs. Accounting majors cannot earn a business minor.

Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee). Transfer students must earn at least 45 credits at CWU. Transfer students and post-baccalaureate students must complete at least 20 CWU in-the-major upper-division accounting credits to be eligible for the accounting degree. In addition to the 20 CWU in-the-major upper-division credits, transfer students and postbaccalaureate students must complete an additional 17 CWU in-the-major accounting major required course or elective credits to be eligible for the accounting degree. Lower-division (100-200 level) accounting or business courses cannot be transferred to meet upper-division (300-400 level) course requirements. No accounting courses are offered for challenge by examination. CWU students who desire to study abroad must have the department chair and dean pre-approve credits transferred back to the College of Business using the Credit Transfer Agreement.

The B.S. in Accounting is designed for students who will begin their career with business, government or not-for-profit organizations. Graduates with the B.S. and appropriate electives are prepared to sit for professional exams such as Certified Management Accounting (CMA), Certified Internal Auditor (CIA), Certified Fraud Examiner (CFE) and Certified Government Financial Manager (CGFM). Students should consult with their major advisor for details.

NOTE: The B.S. degree is NOT sufficient by itself to enable students to pursue the CPA (Certified Public Accountant) license, see below on our Graduate Certificates.

Students wishing to begin their career with a professional accounting firm and pursuing their CPA (Certified Public Accountant) license, need to obtain the equivalent of a "5th year" of coursework. We recommend CPA-seeking students complete one or both of our Graduate Certificates to get the 225 total credits needed to sit for the CPA exam:

1) Our 18-credit Professional Accounting Graduate Certificate covers advanced skills and content material that is tested on the CPA exam.
2) Our 17-credit Professional Tax Practice Certificate covers advanced skills and content that is tested on the Enrolled Agent (EA) Exam, which allows EA's to legally represent their clients
before the IRS (the only others who may do so are licensed CPA's and Lawyers.)

Central accounting students who are up to 180 days prior to obtaining a degree and at least 225 quarter credits are eligible to sit for the Uniform Certified Public Accountant (CPA) examination. Washington law requires individuals wishing to sit for the CPA examination to have completed a minimum of 36 quarter credits of study in accounting and a minimum of 36 quarter credits in related business courses. (See WAC 4-30-060 for educational requirements). Registration for the examination is made through the State Board of Accountancy, Olympia, Washington www.cpaboard.wa.gov/.

Students seeking the CPA license are encouraged to check annually with the State Board as the rules and procedures may change.

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/accounting or by contacting the department directly.

## Accounting Major, BS

The Department of Accounting will allow non-matriculated students in their classes under the following conditions:

1. Post-baccalaureate students who have a business degree from an AACSB-accredited program in the United States, or
2. Current students who are enrolled at another AACSBaccredited program in the United States.
These requests will be addressed on a space-available basis and will need the permission of the Accounting Chair. If you meet either of the above criteria, please e-mail the Accounting classes you desire (including the course location: Ellensburg,
Lynnwood, or Des Moines) and an unofficial transcript to the Chair of the Department of Accounting. The Chair will then prepare the necessary paperwork for admission into the course.

## Graduation Requirements

To graduate with an accounting degree, the department requires a cumulative grade-point average of at least 2.0 for in-the-major upper-division accounting courses completed at CWU, in addition to the university grade-point average requirements that apply to all CWU major programs. Accounting majors cannot earn a business minor.

Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee). Transfer students must earn at least 45 credits at CWU. Transfer students and post-baccalaureate students must complete at least 20 CWU in-the-major upper-division accounting credits to be eligible for the accounting degree. In addition to the 20 CWU in-
the-major upper-division credits, transfer students and postbaccalaureate students must complete an additional 17 CWU in-the-major accounting major required course or elective credits to be eligible for the accounting degree. Lower-division (100-200 level) accounting or business courses cannot be transferred to meet upper-division (300-400 level) course requirements. No accounting courses are offered for challenge by examination. CWU students who desire to study abroad must have the department chair and dean pre-approve credits transferred back to the College of Business using the Credit Transfer Agreement.

The B.S. in Accounting is designed for students who will begin their career with business, government or not-for-profit organizations. Graduates with the B.S. and appropriate electives are prepared to sit for professional exams such as Certified Management Accounting (CMA), Certified Internal Auditor (CIA), Certified Fraud Examiner (CFE) and Certified Government Financial Manager (CGFM). Students should consult with their major advisor for details.

NOTE: The B.S. degree is NOT sufficient by itself to enable students to pursue the CPA (Certified Public Accountant) license, see below on our Graduate Certificates.

Students wishing to begin their career with a professional accounting firm and pursuing their CPA (Certified Public Accountant) license, need to obtain the equivalent of a "5th year" of coursework. We recommend CPA-seeking students complete one or both of our Graduate Certificates to get the 225 total credits needed to sit for the CPA exam:

1) Our 18-credit Professional Accounting Graduate Certificate covers advanced skills and content material that is tested on the CPA exam.
2) Our 17-credit Professional Tax Practice Certificate covers advanced skills and content that is tested on the Enrolled Agent (EA) Exam, which allows EA's to legally represent their clients before the IRS (the only others who may do so are licensed CPA's and Lawyers.)

Central accounting students who are up to 180 days prior to obtaining a degree and at least 225 quarter credits are eligible to sit for the Uniform Certified Public Accountant (CPA) examination. Washington law requires individuals wishing to sit for the CPA examination to have completed a minimum of 36 quarter credits of study in accounting and a minimum of 36 quarter credits in related business courses. (See WAC 4-30-060 for educational requirements). Registration for the examination is made through the State Board of Accountancy, Olympia, Washington www.cpaboard.wa.gov/.

Students seeking the CPA license are encouraged to check annually with the State Board as the rules and procedures may change.

## Foundation Courses Credits: 39

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Select one from the following: ( 5 credits)

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits:
(5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Business Core Courses Credits: 35

- COM 301-Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Required Courses Credits: 35

- ACCT 305-Cost Accounting Credits: (5)
- ACCT 340 - Income Tax Accounting I Credits: (5)
- ACCT 350 - Intermediate Accounting I Credits: (5)
- ACCT 351 - Intermediate Accounting II Credits: (5)
- ACCT 352 - Intermediate Accounting III Credits: (5)
- ACCT 455 - Accounting Information Systems Credits: (5)
- ACCT 460 - Auditing Credits: (5)

Department-Approved Electives Credits: 5
Select 5 credits from the following:

- ACCT 405 - Advanced Cost Accounting Credits: (5)
- ACCT 430 - Governmental and Non-profit

Accounting Credits: (5)

- ACCT 441 - Advanced Tax 1: Individual Credits: (5)
- ACCT 461 - Fraud Examination Credits: (5)
- ACCT 475 - International Accounting Credits: (5)
- ACCT 484 - Professional Writing and Speaking for the Accountant Credits: (5) (ACCT 484, if taken, should be completed no later than fall of senior year.)

College of Business Capstone Credits: 7

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Total Credits: 121

College and Department Information
College of Business Admission Requirements
For information on admission requirements, please go to: College of Business.

Accounting Department
College of Business

## Accounting Minor

The accounting minor provides students with an introduction to several key areas of accounting. Declaration forms with instructions are available online, in department and center offices. The accounting minor requires that the student take five accounting courses and earn a cumulative grade point average of 2.00 in them.

Required Courses Credits: 15

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- ACCT 350 - Intermediate Accounting I Credits: (5)

Department-Approved Electives Credits: 10
Choose any two courses from the following:

- ACCT 305- Cost Accounting Credits: (5)
- ACCT 340 - Income Tax Accounting I Credits: (5)
- ACCT 351 - Intermediate Accounting II Credits: (5)
- ACCT 352 - Intermediate Accounting III Credits: (5)


## Total Credits: 25

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Accounting Department
College of Business

## Accounting Certificate

The accounting certificate provides students with an introduction to several key areas of accounting. Accounting certificates are available to all students. Declaration forms with instructions are available online and, in department and center
offices. The accounting certificate requires that the student take five accounting courses and earn a cumulative grade point average of 2.00 in them.

Required Courses Credits: 15

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- ACCT 350 - Intermediate Accounting I Credits: (5)

Department-Approved Electives Credits: 10

Choose any two five-credit courses from the ACCT upperdivision prefix excluding ACCT 301, ACCT 303, ACCT 490, ACCT 492, and ACCT 493.

Total Credits: 25

## Professional Tax Minor or Certificate

The Professional Tax Certificate/Minor provides students with the skills, knowledge, professional orientation and credit hours required to become an Enrolled Agent. Enrolled Agents (EA) are one of just three types of professionals (along with CPA's and attorneys) who have unlimited practice rights to represent any taxpayer before the IRS (Internal Revenue Service) on any tax matters and at any IRS office/location.

Among the requirements to become an Enrolled Agent, the candidate must pass a three-part professional examination called SEE: Special Enrollment Examination. The three courses in the Professional Tax Certificate/Minor cover the material within the SEE exam as well as other professional training and skills needed to succeed in tax careers.

While this program will not be designed to teach only to the SEE exam, it will help better prepare those who are interested and capable in succeeding on it.

The program has 3 core courses plus a practicum:
ACCT 441-Advanced Tax 1: Individuals, ACCT 442-Advanced Tax 2: Corporations and other entities, ACCT 443-Advanced Tax 3: Practice and Procedure and the 2-credit Practicum can be satisfied with: (i) ACCT 492-Volunteer Income Tax Assistance or (ii) ACCT 490-Internship or (iii) prior work experience.

Additionally, the program is designed to further develop Taxoriented students with computer, research, communications, critical thinking, and time (project) management skills. Such skill development will be integrated across the curriculum.

NOTE: CWU also offers a Graduate Professional Tax Certificate. Please meet with your advisor to determine the best program for your career needs.

## Admission Requirements

- Completion of one foundation tax course (equivalent to ACCT 303 or ACCT 340) with a minimum grade of C
- Evidence of English language proficiency for ESL students
- Computer-based TOEFL minimum score of 213, or
- Internet-based TOEFL minimum score of 79 , or
- IELTS minimum score of 6.5.
- Statement of Educational and Professional Objectives
- Admissions approval by the Professional Tax Certificate Program Committee


## Graduation Requirements

Students must earn at least a 2.0 GPA in each course and an overall average GPA of 2.5 for all the courses in the Certificate.

Required Courses Credits: 15

- ACCT 441 - Advanced Tax 1: Individual Credits: (5)
- ACCT 442-Advanced Tax 2: Corporations and other entities Credits: (5)
- ACCT 443 - Advanced Tax 3: Practice and Procedure Credits: (5)

Practicum Credits: 2

- ACCT 490 - Cooperative Education Credits: (1-12)
- OR ACCT 492 - Volunteer Income Tax Assistance Credits: (2)

Total Credits: 17

## Aerospace Studies Department

## College of Education and Professional Studies

Ellensburg
Lind Hall, room 202A
Mail Stop 7568
509-963-2314
800-CWU-ROTC
Fax: 509-963-2235
www.cwu.edu/airforce
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Lieutenant Colonel Mark L. Meier, USAF, MS

## Professor

Lieutenant Colonel Mark L. Meier, USAF, MS, aeronautical science

## Assistant Professors

Major James B. Barnett, USAF, MS, teaching-elementary Captain DaJon D. DeMille, USAF, MA, business administration and management

## Staff

Technical Sergeant Marie A. Gordon, USAF, NCOIC, personnel

Staff Sergeant Katie N. Williams, USAF, NCOIC, administration
Kendra L. Sterkel, program coordinator

## Department Information

The United States Air Force Reserve Officer Training Corps (AFROTC), represented at CWU by Detachment 895, develops leaders in preparation to be commissioned as second lieutenants in the U.S. Air Force. Upon completing a baccalaureate/master's degree and all officer qualifications, graduates are commissioned and enter active duty. The program is designed to work with your other academic courses and is taught by active duty officer/professors. The Air Force is seeking qualified candidates from under-represented groups including women, African Americans, Hispanics, Asian/Pacific Islanders, and Native American/Alaskan Natives.

The program is designed to educate students about aerospace studies, with a leadership lab to provide a unique opportunity to practice leadership skills. The Aerospace Studies courses cover an introduction to the Air Force, history, leadership, and regional studies/preparation for active duty. Between sophomore and junior year, students attend a four-week field-training encampment, where they are introduced to an intensive training environment designed to teach critical teamwork, leadership, and fellowship skills. Each year there is also an opportunity to visit an Air Force base to see the environment and meet members of the Air Force. All textbooks, materials, and uniforms are provided.

## Admission Requirements

Students from any academic major degree program with a minimum 2.0 cumulative GPA are eligible. Enrollment in the freshman and sophomore classes creates no obligation to the Air Force. A contractual agreement is required after the sophomore year to continue in the ROTC program. Students are eligible to compete for an enrollment allocation into the POC only after successfully passing a medical examination, physical fitness test and having an excellent SAT, ACT or AFOQT (Air Force Officer Qualifying Test) score.

## Transfer Students

Students transferring from other institutions who are interested in pursuing a commission in the Air Force should contact the Unit Admissions Officer prior to their fall quarter, if possible.

## Scholarships

AFROTC competitive merit scholarships are available and awarded to both non-technical and technical majors. A scholarship will normally cover tuition, fees, and books. Those who have never been a full-time college student may apply for a four-year AFROTC scholarship at www.afrotc.com by December 1 (the year prior to attending college). College freshmen and sophomores may compete for three-year and twoyear scholarships. All contracted cadets in good standing receive a monthly stipend, separate from any scholarships.

## Special Training Opportunities

There are a variety of summer programs available to enhance a student's knowledge of the Air Force. Opportunities such as base visits, flying, parachuting, Air Force Office of Special Investigations, engineering, space orientation, as well as trips to other countries to enhance cultural awareness or language immersion. All travel and meals are provided.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/airforce or by contacting the department directly.

## Aerospace Studies Minor

AFROTC courses are accredited and may be taken as an academic minor or as free electives. The aerospace studies minor is awarded upon successful completion of the required courses.

## Required Courses

- AFRO 301-Air Force Leadership Studies Credits: (3)
- AFRO 302 - Air Force Leadership Studies Credits: (3)
- AFRO 303 - Air Force Leadership Studies Credits: (3)
- AFRO 401 - National Security Affairs and Preparation for Active Duty Credits: (3)
- AFRO 402 - National Security Affairs and Preparation for Active Duty Credits: (3)
- AFRO 403 - National Security Affairs and Preparation for Active Duty Credits: (3)

Total Credits: 18

College and Department Information

Aerospace Studies Department

# Africana and Black Studies Program 

College of Arts and Humanities<br>Ellensburg<br>Language and Literature Bldg., room 423

509-963-1546
www.cwu.edu/africana
See website for how this program may be used for educational and career purposes.

## Program Director

Bobby Cummings, PhD, English, Michaelsen Hall, room 104

## Program Advisor

Bobby Cummings, PhD
Professors
Delores Cleary, PhD, sociology, ethnic studies, American Indian

## studies

Bobby Cummings, PhD , curriculum, rhetoric and composition, African American literature
Paulus Pimomo, PhD, English
Charles Reasons, LLB, criminology, criminal justice, law
Todd Schaefer, PhD, political science, African politics
Nelson Pichardo, PhD, sociology, ethnic studies

## Associate Professors

Teresa Divine, JD, LLM, criminal law, correctional law

## Assistant Professor

Lacy Ferrell, PhD, African history

## Lecturer

Pedro Xavier Cavazos, MFA, English, poetry

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/africana or by contacting the department directly.

## Africana and Black Studies Minor

The Africana and black studies minor program offers interdisciplinary study of the history, culture, economics, and political institutions that have shaped the experiences of people of African ancestry throughout the world. The program serves as an interdisciplinary intellectual center for study and research in the many dimensions of African and black diasporic experiences, and for application of knowledge and scholarship to advance the common good. It provides access for students and scholars to a broad range of information and research by drawing upon the insights of English, geography, history, political science, music, and other disciplines at Central. The minor is designed for all highly motivated and adventurous students in all majors who have a serious interest in learning about the black diaspora and its impact on the individual countries and on the interdependent world in which we live.

Students in the minor are encouraged to take advantage of studyabroad programs to Africa and to countries of the black diaspora. Africana and Black Studies minors are expected to participate actively in co-curricular multicultural learning experiences offered by the following: student organizations, Students for the Dream Living Learning Community, Diversity Education Center, Campus Life activities, Center for the Dream, University Housing and New Student Programs, Center for Student Empowerment, Latino and Latin American Studies Program, and the David Wain Coon Center for Excellence in Leadership.

Required Courses Credits: 15

- ABS 110 - Expressive Black Culture: African American Literary Traditions from Folklore to Rap Credits: (5)
- ABS 210 - Intro to the African American Odyssey: Socio-Economic and Political Forces Shaping Black Experience Credits: (5)
- HIST 332 - History of the Black Diaspora Credits: (5)

Department-Approved Electives Credits: 15-20
Africana Electives Credits: 11-15
Select from the following:

- ABS 300 - Black Diaspora Studies: Afro-Latin America and Afro-Caribbean Cultures Credits: (5)
- ABS 302 - Hip Hop as Global Culture Credits: (5)
- ABS 305-20th Century Black Women's Literature (Put on reserve 9/16/16) Credits: (4)
- ABS 308 - African American Folklore Credits: (5)
- ABS 309 - Race and Sports: Freedom, Power, and Difference Credits: (4)
- ABS 399- ABS Seminar Credits: (3-5)
- ABS 400 - Race and Literature Credits: (4)
- ENG 330 - African American Literature Credits: (5)
- HIST 331 - Colonial Africa Credits: (5)

Social Sciences Electives Credits: 4-5
Select one from the following:

- ETS 354 - Minority Experiences Credits: (5)
- LAJ 402 - African Americans and the Constitution Credits: (4)
- POSC 365 - African Politics Credits: (5)
- SOC 354 - Minority Experience Credits: (5)
- SOC 386 - Seminar on Racism Credits: (5)

Total Credits: 30-35

College and Department Information
Africana and Black Studies Program
College of Arts and Humanities

# American Indian Studies Program 

College of the Sciences

Ellensburg
Anthropology
509-963-3201
www.cwu.edu/native-american
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Program Director
Patrick McCutcheon, PhD, anthropology, Dean Hall, room 340

## Professors

Delores Cleary, PhD, sociology
Steven Hackenberger, PhD, anthropology
Daniel Herman, PhD, history
Patrick Lubinski, PhD, anthropology
Patrick McCutcheon, PhD, anthropology
Christopher Schedler, PhD, English

## Associate Professor

Brian Carroll, PhD, history

## Assistant Professor

Rodrigo Renteria-Valencia, PhD, anthropology

## Lecturers

Marla Carroll, MA, McNair scholars
Stefanie Wickstrom, PhD, political science

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/native-american or by contacting the department directly.

## American Indian Studies Minor

The American Indian studies minor program goals are to provide an interdisciplinary opportunity to learn about American Indian peoples, to facilitate research and creative activities that concern American Indian peoples, and to recognize the diversity represented in the rich heritage of American Indians. Students with a minor in American Indian studies will use academic and experiential knowledge to appreciate the natural and cultural diversity of American Indian people.

Required Courses Credits: 15

- AIS 101 - American Indian Culture before European Contact Credits: (5)
- AIS 102 - American Indians in the Contact Period Credits: (5)
- AIS 103 - Contemporary American Indian Experience Credits: (5)

Department-Approved Electives Credits: 18-19

Humanities Electives Credits: 10

Select two of the following courses:

- AIS 321 - American Indian Spirituality Credits: (5)
- ENG 332 - American Indian Literature Credits: (5)
- ENG 334 - American Indian Oral and Nonfiction Literature Credits: (5)
- ENG 461 - Studies in Film and Culture Credits: (5)
- HIST 385 - Aztec, Inca, Maya: Empire and City in the New World Credits: (5)
- HIST 434 - American Indian History to 1795 Credits: (5)
- HIST 438 - American Indian History since 1795 Credits: (5)

Science Electives Credits: 8-9

Select two of the following courses:

- ANTH 324 - North American Archaeology Credits: (4)
- ANTH 325 - Prehistory of the Pacific Northwest Credits: (4)
- ANTH 341 - Native American Cultures of the Pacific Northwest Credits: (4)
- ANTH 347 - Native American Cultures of North America Credits: (4)
- POSC 411 - American Indian Politics and Sovereignty Credits: (4)
- SOC 366 - Sociology of American Indians Credits: (5)

Additional course opportunities in:

The below courses are offered throughout the academic year under different titles.

- AIS 296 - Individual Study Credits: (1-6)
- AIS 490 - Cooperative Education Credits: (1-12)
- AIS 491 - Workshop Credits: (1-6)
- AIS 496 - Individual Study Credits: (1-6)
- AIS 498 - Special Topics Credits: (1-5)

Total Credits: 33-34

College and Department Information
American Indian Studies Program
College of the Sciences

## Anthropology and Museum Studies Department

College of the Sciences

Ellensburg
Dean Hall, room 357
Mail Stop 7544
509-963-3201
Fax: 509-963-3215
www.cwu.edu/anthropology
See website for how this program may be used for educational
and career purposes.

## Faculty and Staff

Chair
Lene Pedersen, PhD

## Professors

Tracy J. Andrews, PhD, (emeritus),sociocultural anthropology, ethnicity, medical and ecological anthropology, gender, Native North America
Kathleen Barlow, PhD, (emeritus), psychological anthropology, learning and culture, museum anthropology, art and aesthetics, resource management
Steven Hackenberger, PhD, archaeology, cultural resource management, North America and Caribbean
Patrick Lubinski, PhD, archaeology, zooarchaeology, cultural resource management, North America
Patrick McCutcheon, PhD, archaeology, evolutionary and environmental archaeology, cultural resource management Lene Pedersen, PhD, sociocultural anthropology, visual and environmental anthropology, postcolonialism, SE Asia
(Indonesia), E. Africa, circumpolar North
Lori K. Sheeran, PhD, biological anthropology, primate ecology, gibbons, China
Penglin Wang, PhD, linguistic and cultural anthropology, East and Central/Inner Asia, China

## Assistant Professors

J. Hope Amason, PhD , political economy and globalization, politics of representation, race, class, and gender, museums, memorials and heritage sites, tourism studies, Appalachia, US South
Jessica Mayhew, PhD, Biological anthropology, primate behavior and socio-cognition, play behavior, Africa, Central America
Rodrigo Rentería-Valencia, PhD, Environmental anthropology, semiotics, linguistic anthropology, ritual and performance theory, visual anthropology; Northern Mexico and the borderlands

## Staff

Penelope Anderson, secretary senior

## Department Information

Anthropology presents an integrated perspective on the cultural and biological nature of humans. Anthropologists study present and past human diversity through classroom, laboratory, and field studies in cultural and biological anthropology, including archaeology, linguistics, ethnology, and applied anthropology.

Students interested in major and minor programs should contact the department office as soon as possible for further information, application forms, and assignment of an advisor. Anthropology majors are expected to meet with their advisors at least once a quarter.

Students need a GPA of 2.5 or higher to be admitted to the department.

## Special Programs

Reflecting the broad nature of anthropological study, the department directly sponsors or is affiliated with a wide range of on- and off-campus options to broaden classroom experiences.

Further information about the following programs is available through the anthropology department office:

- Museum Studies Program, offering coursework, field experiences, and projects with local and regional museums
- Central Washington Archaeological Survey (CWAS), a service, research, and public information facility with special emphasis in the Northwest
- Bachelor of science in primate behavior and ecology, an interdisciplinary program providing undergraduate training in method and theory of primatology as basis for research, laboratory, and field experience
- Master of science in resource management, offering an integrated program in natural and cultural resource management including anthropology classes in cultural resource management, and historic preservation
- Master of science in primate behavior, an interdisciplinary program in primatology, including courses in the history, field and lab methods, and current topics and issues in the discipline
- Center for Spatial Information, providing a range of Geographic Information System (GIS) tools for analysis of social and natural science data
- Summer workshops and field schools, including survey archaeology in eastern Washington, primate and biodiversity studies in China, and workshops in forensic anthropology
- Study abroad opportunities coordinated through the CWU Office of International Study and programs
- Departmental honors program encourages individualized research and study in a sub-area of anthropology. It is open to junior and senior students with an anthropology major GPA of 3.0 or better
- Anthropology Student Association, an active student group which sponsors academic and social events related to the discipline.


## Subfield identification key:

## A=Archaeology

B=Biological Anthropology
C=Cultural Anthropology
$\mathrm{L}=$ Linguistics
$\mathbf{S}=$ Seminars

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/anthropology or by contacting the department directly.

## Anthropology Major, BA (45 Credits)

This 45 -credit major must be accompanied by a major in a discipline related to anthropology. The program will consist of
coursework focused on areas related to the dual major and must be designed in close consultation with an anthropology advisor. A program proposal must be approved prior to admission to this BA program.

## Required Courses

- Introductory (100-level) Credits: (15)
- Intermediate (300-level) must include three subfieldsCredits: (12-16)
- Advanced Courses (400-level) must include two subfields- Credits: (8-12)
- ANTH 301 - Anthropology: Principles and Assessment Credits: (2)
- ANTH 458 - Senior Comprehensive Survey Credits: (4)

Total Credits: 45

College and Department Information

Anthropology and Museum Studies Department College of the Sciences

## Anthropology Major, BA ( 62 Credits)

This liberal arts and sciences major provides background to prepare students for any vocation, in that a measure of achievement in all careers is success in human relationships. The major is also consistent with employment in a variety of business, government and social service areas.

Required Courses
Anthropology Core Requirements

- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- ANTH 120 - Archaeology: Science of the Past Credits: (5)
- ANTH 130 - Cultural Worlds Credits: (5)
- ANTH 180 - Language and Culture Credits: (5)
- ANTH 301 - Anthropology: Principles and Assessment Credits: (2)

Anthropology Core Total Credits: 22

Additional Required Courses

- ANTH 458 - Senior Comprehensive Survey Credits: (4)
- Select 300-level courses from at least three subfields: Archaeology, Biological Anthropology, Cultural Anthropology, LinguisticsCredits: (16)
- Advanced (400-level) courses (must include a department-approved, 400-level seminar course) Credits: (16)
- Department-approved electives Credits: (4)

Total Credits: 62

College and Department Information

Anthropology and Museum Studies Department College of the Sciences

## Anthropology Major, BS

This major prepares students for graduate work in anthropology or for careers in anthropology and closely related fields. Electives are chosen in consultation with an advisor to lead into specialization in areas such as: ethnology, linguistics, archaeology, environmental studies, or biological anthropology. Students in this major must have course schedules approved quarterly by their departmental advisors.

Anthropology Core Requirements

- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- ANTH 120 - Archaeology: Science of the Past Credits: (5)
- ANTH 130 - Cultural Worlds Credits: (5)
- ANTH 180 - Language and Culture Credits: (5)
- ANTH 301 - Anthropology: Principles and Assessment Credits: (2)

Anthropology Core Total Credits: 22

## Required Courses

Intermediate: (300-level courses) Credits: 24

- Select one 300-level course from each subfield: Archaeology, Biological Anthropology, Cultural, Linguistics- Credits: (16)
- Select additional 8 credits from 300-level courses. Credits: (8)

Advanced (400-level courses) Credits: 20

- ANTH 458 - Senior Comprehensive Survey Credits: (4)
- Theory Course: ANTH 410 or ANTH 421 or ANTH 451 Credits: (4)
- Department-approved 400-level seminar Credits: (4)
- Select additional 8 credits of advanced (400-level) courses Credits: (8)

Electives in Anthropology and related fields (must include a course in statistics) Credits: 8

## Total Credits: 74

(NOTE: Students planning on graduate school in linguistics are strongly advised to select ANTH 382.)

College and Department Information

Anthropology and Museum Studies Department
College of the Sciences

## Anthropology Minor

Required Courses Credits: 15

Select three from the following:

- ANTH 107 - Being Human: Past and Present Credits: (5)
- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- ANTH 120 - Archaeology: Science of the Past Credits: (5)
- ANTH 130 - Cultural Worlds Credits: (5)
- ANTH 180 - Language and Culture Credits: (5)

Department-Approved Electives Credits: 12

Elective credits must be at the 300 or 400 course level.
(NOTE: Students in teacher education must include ANTH 324 or ANTH 347, and ANTH 355 or ANTH 381 within the 10 credits of electives. ANTH 381 suggested for those enrolled in Teaching English as a Second Language.)

Total Credits: 27

College and Department Information

Anthropology and Museum Studies Department College of the Sciences

## Museum Studies Minor

The museum studies minor prepares students for entry-level, museum-related employment and/or for graduate work in museum studies. To be eligible for admission to this program, students should be enrolled in a related major (e.g., anthropology, art, biology, geology, geography, history, recreation and tourism, science education, etc.).

Approval by the anthropology department chair is also required.
Required Courses Credits: 18

- ANTH 360 - Introduction to Museum Studies

Credits: (4)

- ANTH 361 - Museum Exhibit Design Credits: (4)
- ANTH 362 - Museum Curation and Management Credits: (4)
- ANTH 490 - Cooperative Education Credits: (1-12) (must be taken for 6 credits)

Select one from the following: Credits: 5

- ANTH 107 - Being Human: Past and Present Credits: (5)
- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- ANTH 120 - Archaeology: Science of the Past Credits: (5)
- ANTH 130 - Cultural Worlds Credits: (5)

Department-Approved Electives Credits: 7

Total Credits: 30

College and Department Information

Anthropology and Museum Studies Department College of the Sciences

## Forensics Certificate

The Forensics certificate provides recognition for students completing the required core curriculum and electives of forensics-related classes from at least two academic departments. Certification will provide students with an introduction to the topic and may assist them in their future job searches. By itself the certificate is not sufficiently comprehensive to indicate a student is highly trained in forensic science.

Required Courses Credits: 15
Courses may be taken in any order, although the Introduction to Forensics course is recommended to be taken early. It is acceptable to count any of these courses in a major as well as in the certificate.

- ANTH 310 - Research/Laboratory in Biological Anthropology Credits: (1-2)
- ANTH 315 - Forensic Skeletal Analysis Credits: (4)
- ANTH 318 - Introduction to Forensics Credits: (4)
- OR LAJ 318 - Introduction to Forensics Credits: (4)
- ANTH 497 - Forensics Capstone Credits: (1)
- OR LAJ 497 - Forensics Capstone Credits: (1)
- LAJ 300-Administration of Criminal Justice Credits: (4)


## Electives Credits: 15

A total of 15 or more credits must be taken from the following list. Courses must include at least two different academic departments. It is recommended that students enroll in at least
one laboratory or field course (indicated with *), but this is not required.

Anthropology:

- ANTH 316 - History and Theory of Molecular Anthropology Credits: (4)
- ANTH 323 - Field Archaeology Credits: (3-6) *
- ANTH 357 - Medical Anthropology: Cross-cultural Perspectives on Health and Healing Credits: (4)
- ANTH 414 - Forensic Anthropology: Cold Case Analysis Credits: (6) *
- ANTH 415 - Forensic Anthropology: Theoretical and Applied Issues Credits: (4)
- ANTH 425 - Zooarchaeology Credits: (4) *
- ANTH 444 - Ethnographic Field Methods Credits: (4)
- ANTH 486 - Advanced Methods in Archaeology Credits: (1-8) *
- ANTH 490 - Cooperative Education Credits: (1-12)


## Biological Sciences:

- BIOL 321 - Genetics Credits: (5) *
- BIOL 351 - General Entomology Credits: (5) *
- BIOL 353 - Integrative Anatomy Credits: (6) *
- BIOL 355 - Human Anatomy and Physiology I Credits: (5) *
- BIOL 356 - Human Anatomy and Physiology II Credits: (5) *
- BIOL 425 - Molecular Biotechnology Credits: (5) *
- BIOL 490 - Cooperative Education Credits: (1-12)


## Chemistry:

(Note that typically 30 quarter hours in chemistry are required for work in state forensics laboratories, such as for Forensic Scientist I at the Washington State Patrol.)

- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1) *
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1) *
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I

Credits: (1)*

- CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)*
- CHEM 183-General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1) *
- CHEM 332 - Quantitative Analysis Credits: (3)
- CHEM 332LAB - Quantitative Analysis Laboratory Credits: (2) *

Law and Justice:

- LAJ 302 - Criminal Procedure Credits: (4)
- LAJ 313 - Introduction to Criminal Law Credits: (4)
- LAJ 331 - Investigation Credits: (4)
- LAJ 490 - Cooperative Education Credits: (1-12)

Physics:
(Note that typically 8 quarter hours in physics are required for work in state forensics laboratories, such as for Forensic Scientist I at the Washington State Patrol.)

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 490 - Cooperative Education Credits: (1-12)

Psychology:

- PSY 449 - Abnormal Psychology Credits: (4)
- PSY 484 - Violence and Aggression Credits: (4)

Sociology:

- SOC 346 - Criminology Credits: (5)
- SOC 348 - Women and Crime Credits: (5)
- SOC 490 - Cooperative Education Credits: (1-12)

Total Credits: 30

College and Department Information
Anthropology and Museum Studies Department College of the Sciences

## Art and Design Department

College of Arts and Humanities
Ellensburg
Randall Hall, room 100
Mail Stop 7564
509-963-2665
www.cwu.edu/art
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Gregg Schlanger, MFA

## Professors

Keith Lewis, MFA, jewelry and metalsmithing
Gregg Schlanger, MFA, sculpture

## Associate Professors

Ellen Avitts, PhD, art history
David Bieloh, MFA, graphic design
Maya Chachava, MFA, painting
Stephen Robison, MFA, ceramics

## Assistant Professors

Marcus DeSieno, MFA, photography
Rachel Kirk, MFA, foundations and drawing

## Staff

Jeff Cleveland, department maintenance
Heather Horn Johnson, gallery manager
Gwendolyn Bruce, secretary senior

## Departmental Information

The Department of Art and Design is the primary agent for the study and practice of visual culture. Our faculty facilitates liberal learning and academic excellence to enable our students to assume their respective roles as practitioners, educators, and informed patrons of the visual arts. Degrees are offered in studio art and graphic design with allied course offerings in art history. We also offer minors in art studio and art history.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/art or by contacting the department directly.

## Art Major, BA

An art degree for students desiring to pursue studio art or graphic design-related careers and/or seeking artistic enrichment. The degree can be directed toward a disciplinespecific studio art practice, graphic design or a crossdisciplinary and/or cross-media studio art practice.

Required Courses Credits: 30

- ART 150 - Introduction to Drawing Credits: (3)
- ART 170 - Two-Dimensional Design Credits: (3)
- ART 171 - Three-Dimensional Design Credits: (3)
- ART 172 - Computer Fundamentals in Art and Design Credits: (3)
- ART 235 - Ancient and Medieval Art Credits: (3)
- ART 236 - Renaissance through Mid-19th-century Art Credits: (3)
- ART 237- Impressionism through Postmodernism Credits: (3)
- ART 250 - Figure Drawing Credits: (3)
- ART 414 - Recent Art Credits: (4)
- ART 495 - Studio Project Credits: (2)

Art History Credits: 4
Select one course from the following:

- ART 324 - History of Photography Credits: (4)
- ART 333 - Art, Design, and Popular Culture Credits: (4)
- ART 374 - History of Graphic Design Credits: (4)
- ART 389-Contemporary Concepts in Art (Put on reserve as of 9/16/15) Credits: (4)
- ART 420 - American Art and Architecture Credits: (4)

Lower Division Studio Arts Required Courses Credits: 16

Select four lower-division studio courses from the following eight courses:

- ART 225 - Beginning Photography Credits: (4)
- ART 241 - Beginning Wood Design Credits: (4)
- ART 246 - Beginning Jewelry/ Metals Credits: (4)
- ART 260 - Beginning Painting Credits: (4)
- ART 265 - Beginning Ceramics Credits: (4)
- ART 274 - Beginning Typography Credits: (4)
- ART 280 - Beginning Sculpture Credits: (4)
- ART 283 - Beginning Graphic Interface Design Credits: (4)

Department-approved Upper-division Courses Credits: 23-25

Total Credits: 73-75

College and Department Information

Art and Design Department
College of Arts and Humanities

## Art BFA, Graphic Design Specialization

A comprehensive studio art degree for students desiring careers in graphic design/visual communications. Critical thinking through the exploration of digital and print media is emphasized. After completion of the art core and pre-graphic design prerequisites, students are required to complete the graphic design concentration requirements, including a contracted field experience. Transfer students are encouraged to complete as many of the transferable art requirements prior to enrolling at CWU.

An Apple laptop is required.

Bachelor of Fine Arts Requirements

- ART 150 - Introduction to Drawing Credits: (3)
- ART 170-Two-Dimensional Design Credits: (3)
- ART 171-Three-Dimensional Design Credits: (3)
- ART 172-Computer Fundamentals in Art and Design Credits: (3)
- ART 235 - Ancient and Medieval Art Credits: (3)
- ART 236 - Renaissance through Mid-19th-century Art Credits: (3)
- ART 237 - Impressionism through Postmodernism Credits: (3)
- ART 250 - Figure Drawing Credits: (3)
- ART 414 - Recent Art Credits: (4)
- ART 495 - Studio Project Credits: (2)

BFA Requirements Total Credits: 30

Graphic Design Specialization

Prerequisite Lower-division Required Courses Credits: 12

- ART 225 - Beginning Photography Credits: (4)
- ART 274 - Beginning Typography Credits: (4)
- ART 283 - Beginning Graphic Interface Design Credits: (4)

Art History Credits: 4

- ART 374 - History of Graphic Design Credits: (4)

Lower-division Required Courses Credits: 12

- ART 251 - Beginning Illustration Credits: (4)

Select an additional two department-approved lowerdivision studio courses from the following:

- ART 241 - Beginning Wood Design Credits: (4)
- ART 246 - Beginning Jewelry/ Metals Credits: (4)
- ART 260 - Beginning Painting Credits: (4)
- ART 265 - Beginning Ceramics Credits: (4)
- ART 280 - Beginning Sculpture Credits: (4)

Upper-division Required Courses Credits: 50-52

- ART 351 - Intermediate Illustration Credits: (4)
- ART 370 - Beginning Layout and Design Credits: (4)
- ART 371 - Intermediate Layout and Design Credits: (4)
- ART 372 - Beginning Design and Production Credits: (4)
- ART 383 - Intermediate Graphic Interface Design Credits: (4)
- ART 470 - Advertising Graphic Design Credits: (4)
- ART 471 - Corporate Graphic Design Credits: (4)
- ART 472 - Intermediate Design and Production Credits: (4)
- ART 474 - Intermediate Typography Credits: (4)
- ART 483 - Advanced Graphic Interface Design Credits: (4)
- ART 490 - Cooperative Education Credits: (1-12) (Must be taken for 10-12 credits)

Total Credits: 108-110

College and Department Information

Art and Design Department
College of Arts and Humanities

## Art BFA, Studio Art Specialization

A comprehensive studio art degree for students desiring to pursue studio art-related careers or seeking artistic enrichment. The degree can be directed toward either a discipline-specific studio art practice or a cross-disciplinary and/or cross-media studio art practice.

Bachelor of Fine Arts Requirements

- ART 150 - Introduction to Drawing Credits: (3)
- ART 170 - Two-Dimensional Design Credits: (3)
- ART 171 - Three-Dimensional Design Credits: (3)
- ART 172 - Computer Fundamentals in Art and Design Credits: (3)
- ART 235 - Ancient and Medieval Art Credits: (3)
- ART 236-Renaissance through Mid-19th-century Art Credits: (3)
- ART 237 - Impressionism through Postmodernism Credits: (3)
- ART 250 - Figure Drawing Credits: (3)
- ART 414 - Recent Art Credits: (4)
- ART 495-Studio Project Credits: (2)

BFA Requirements Total Credits: 30

Studio Art Specialization

Art History Credits: 4

Select one course from the following:

- ART 324 - History of Photography Credits: (4)
- ART 333 - Art, Design, and Popular Culture Credits: (4)
- ART 374 - History of Graphic Design Credits: (4)
- ART 389 - Contemporary Concepts in Art (Put on reserve as of $9 / 16 / 15$ ) Credits: (4)
- ART 420-American Art and Architecture Credits: (4)

Lower-division Studio Required Courses Credits: 24

Select six department-approved lower-division studio courses from the following courses:

- ART 225 - Beginning Photography Credits: (4)
- ART 241 - Beginning Wood Design Credits: (4)
- ART 246 - Beginning Jewelry/ Metals Credits: (4)
- ART 260 - Beginning Painting Credits: (4)
- ART 265 - Beginning Ceramics Credits: (4)
- ART 274 - Beginning Typography Credits: (4)
- ART 280 - Beginning Sculpture Credits: (4)

Upper-division Department-approved Studio Art Courses Credits: 50-52

Total Credits: 108-110

College and Department Information

Art and Design Department
College of Arts and Humanities

## Art History Minor

Required Courses Credits: 9

- ART 235 - Ancient and Medieval Art Credits: (3)
- ART 236 - Renaissance through Mid-19th-century Art Credits: (3)
- ART 237 - Impressionism through Postmodernism Credits: (3)

Select four courses from the following: Credits: 16

- ART 324 - History of Photography Credits: (4)
- ART 333 - Art, Design, and Popular Culture Credits: (4)
- ART 374 - History of Graphic Design Credits: (4)
- ART 389 - Contemporary Concepts in Art (Put on reserve as of $9 / 16 / 15$ ) Credits: (4)
- ART 414 - Recent Art Credits: (4)
- ART 420-American Art and Architecture Credits: (4)

Total Credits: 25

College and Department Information
Art and Design Department
College of Arts and Humanities

## Art Studio Minor

Required Courses Credits: 6
Select two of the following courses:

- ART 150 - Introduction to Drawing Credits: (3)
- ART 170-Two-Dimensional Design Credits: (3)
- ART 171 - Three-Dimensional Design Credits: (3)
- ART 172 - Computer Fundamentals in Art and Design Credits: (3)

Art History Credits: 3

- ART 235 - Ancient and Medieval Art Credits: (3)

Department-approved Studio Courses Credits: 16

Total Credits: 24

College and Department Information

Art and Design Department
College of Arts and Humanities

## Asian Studies Program

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 100-0
509-963-1190
Fax 509-963-1822
www.cwu.edu/asian-studies
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Director
Michael Launius, PhD

## Program Faculty

Chong Eun Ahn, PhD, history
Yukari Amos, PhD, education
Liahna Armstrong, PhD, English
George Bellah, PhD, theatre
John Bowen, PhD, geography
Jeffrey Dippmann, PhD, philosophy and religious studies
Michael Launius, PhD, political science
Marilyn Levine, PhD, history
Joshua Nelson, PhD, Japanese language
Penglin Wang, PhD, anthropology
Bang-Soon Yoon, PhD, political science and women and gender studies

## Associate Faculty

Koushik Ghosh, PhD, economics
Yong Joo Lee, PhD, finance and OSCM
Charles Li, PhD, English
Kun Liao, PhD, finance and OSCM
Yuanxia Liu, MA, Chinese language
Kenneth Munsell, MA, history
Joshua Nelson, MA, communication
Mariko Okada-Collins, MA, Japanese language
Hideki Takei, DBA, ITAM
Fen Wang, PhD, ITAM
Annie Yen Yang, PhD, communication

## Program Information

The Asian Studies Program is an interdisciplinary program focusing on a region currently undergoing a dramatic economic, political, and social transformation. The program provides students with a grasp of the region's diversity while emphasizing the interactive nature of an overarching community of nations. Careers in international business, government service, and education can be augmented by preparation in Asian Studies.

The program also serves as an excellent preparation for graduate study in various academic and professional fields.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/asian-studies or by contacting the department directly.

## Asian Studies Major, BA

The Asian Studies Program is an interdisciplinary program focusing on a region currently undergoing a dramatic economic, political, and social transformation. The program provides students with a grasp of the region's diversity while emphasizing the interactive nature of an overarching community of nations. Careers in international business, government service, and education can be augmented by preparation in Asian Studies. The program also serves as an excellent preparation for graduate study in various academic and professional fields.

## Asia/Pacific Studies Core

- AST 102 - Introduction to Asian Studies Credits: (3)
- AST 401 - Asia/Pacific Studies Capstone Credits: (3)

First- and Second-year Chinese - Credits: 30

- CHIN 151 - First-year Chinese Credits: (5)
- CHIN 152 - First-year Chinese Credits: (5)
- CHIN 153 - First-year Chinese Credits: (5)
- CHIN 251 - Second-year Chinese Credits: (5)
- CHIN 252 - Second-year Chinese Credits: (5)
- CHIN 253 - Second-year Chinese Credits: (5) OR

First- and Second-year Japanese

- JAPN 151 - First-year Japanese Credits: (5)
- JAPN 152 - First-year Japanese Credits: (5)
- JAPN 153 - First-year Japanese Credits: (5)
- JAPN 251 - Second-year Japanese Credits: (5)
- JAPN 252 - Second-year Japanese Credits: (5)
- JAPN 253 - Second-year Japanese Credits: (5)

Total Core Credits: 36
Choose six classes from the following list: Credits (25-29)

You are required to choose a minimum of one class from each of the three groups. Elective courses may not be chosen from the student's major area.
(Note: Other courses may be included with advisor's approval)

Group 1 (Social Sciences)

- ANTH 344 - Cultures of Asia Credits: (4)
- ANTH 345 - Cultures of Southeast Asia and Oceania Credits: (4)
- AST 310 - Japan Today Credits: (3)
- GEOG 375 - Geography of Asia Credits: (4)
- POSC 366 - Government and Politics of East Asia Credits: (5)
- POSC 367 - Politics of Japan Credits: (5)
- POSC 369 - Korean Politics Credits: (5)
- POSC 373 - International Politics of the Pacific Rim Credits: (5)

Group 2 (Aesthetic Experience)

- AST 301-Chinese Literature in Translation Credits: (4)
- CHIN 461 - Chinese Cinema Credits: (4)
- JAPN 462 - Japanese Cinema Credits: (5)
- TH 375 - Asian Drama Credits: (4)

Group 3 (Humanities)

- HIST 380 - Modern East Asia Credits: (5)
- HIST 383 - East Asian Civilization Credits: (5)
- HIST 483 - Modern China Credits: (5)
- PHIL 345 - Chinese Philosophy Credits: (5)
- RELS 351 - Religions of China and Japan Credits: (5)
- RELS 352 - Religions of India Credits: (5)
- RELS 401 - The Daoist Tradition Credits: (5)
- RELS 403 - Buddhist Thought and Practice Credits: (5)

Total Credits: 61-65

College and Department Information

Asian Studies Program
College of Arts and Humanities

## Asian Business Minor

The minor in Asian Business is designed to prepare students for working within the state's emerging Asia-oriented economy. It combines an overview of the nuances of the regional economy with an introduction to Asia's cultural and historical development. Topics include an introduction to Asian culture and philosophy, corporate-government relations, twentiethcentury history, regional development, and export strategies. It can be supplemented with study abroad opportunities and language study. There are two tracks: one for College of Business majors and one for non-business majors.

Required Courses Credits: 12

- AST 102 - Introduction to Asian Studies Credits: (3)
- COM 302 - Intercultural Communication Credits: (4)
- ECON 101 - Economic Issues Credits: (5)
- OR ECON 102 - World Economic Issues Credits: (5)
- OR ECON 201 - Principles of Economics Micro Credits: (5)

Track for Business Majors Credits: 9-10

- ANTH 344 - Cultures of Asia Credits: (4)
- OR ANTH 345-Cultures of Southeast Asia and Oceania Credits: (4)
- OR HIST 380 - Modern East Asia Credits: (5)
- POSC 366 - Government and Politics of East Asia Credits: (5)
- OR POSC 373 - International Politics of the Pacific Rim Credits: (5)

Track for Non-Business Majors Credits: 10
Choose two of the following courses:

- HRM 381- Management of Human Resources Credits: (5)
- MGT 380-Organizational Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)

Total Credits: 21-22
College and Department Information
Asian Studies Program
College of Arts and Humanities

## Asian Studies Minor

The Asian Studies Program is an interdisciplinary program focusing on a region currently undergoing a dramatic economic, political, and social transformation. The program provides students with a grasp of the region's diversity while emphasizing the interactive nature of an overarching community of nations. Careers in international business, government service, and education can be augmented by preparation in Asian Studies. The program also serves as an excellent preparation for graduate study in various academic and professional fields.

## Required Courses

- AST 102 - Introduction to Asian Studies Credits: (3)

First-year Chinese or First-year Japanese: Credits (15)

- CHIN 151 - First-year Chinese Credits: (5)
- CHIN 152 - First-year Chinese Credits: (5)
- CHIN 153 - First-year Chinese Credits: (5) OR
- JAPN 151 - First-year Japanese Credits: (5)
- JAPN 152 - First-year Japanese Credits: (5)
- JAPN 153 - First-year Japanese Credits: (5)

Choose three classes from the following list: Credits 12-14

You are required to choose a minimum of one class from each of the three groups. Elective courses may not be chosen from the student's major area.
(Note: Other courses may be included with advisor's approval. At least two departments must be represented among selected courses.)

Group 1 (Social Sciences)

- ANTH 344 - Cultures of Asia Credits: (4)
- ANTH 345 - Cultures of Southeast Asia and Oceania Credits: (4)
- AST 310 - Japan Today Credits: (3)
- GEOG 375 - Geography of Asia Credits: (4)
- POSC 366 - Government and Politics of East Asia Credits: (5)
- POSC 367 - Politics of Japan Credits: (5)
- POSC 369 - Korean Politics Credits: (5)
- POSC 373 - International Politics of the Pacific Rim Credits: (5)

Group 2 (Aesthetic Experience)

- AST 301-Chinese Literature in Translation Credits: (4)
- CHIN 461 - Chinese Cinema Credits: (4)
- JAPN 462 - Japanese Cinema Credits: (5)
- TH 375 - Asian Drama Credits: (4)

Group 3 (Humanities)

- HIST 380 - Modern East Asia Credits: (5)
- HIST 383 - East Asian Civilization Credits: (5)
- HIST 483 - Modern China Credits: (5)
- PHIL 345 - Chinese Philosophy Credits: (5)
- RELS 351 - Religions of China and Japan Credits: (5)
- RELS 352 - Religions of India Credits: (5)
- RELS 401 - The Daoist Tradition Credits: (5)
- RELS 403 - Buddhist Thought and Practice Credits: (5)


## Total Credits: 30-32

College and Department Information
Asian Studies Program
College of Arts and Humanities

## Aviation Department

College of Education and Professional Studies
Ellensburg
Black Hall Suite 225-1
400 East University Way 98926-7515
509-963-2364
Fax: 509-963-2377
Mail Stop 7515
aviation@cwu.edu
www.cwu.edu/aviation
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Sundaram Nataraja, MA, MS, EdD, UAS/Remote Pilot (FAA
Part 107)

## Professors

Amy L. Hoover, PhD, CFII, mountain flying, meteorology, human factors
Sundaram Nataraja, MS, EdD, CILT, aviation management, airport finance, airport/airlines marketing
Teresa Sloan, MIT, ATP, FAA ground schools, air transportation
Jason Underhill, MBA, ATP, CFII, aircraft systems and simulation, airline operations
Dale Wilson, MS, ATP, MGI, CFI, aviation safety, human factors, aviation weather

## Lecturers

Cathy Busha, JD, aviation law
Andrew McIrvin, BS, ATP, DPE, director of flight operations
Rich Bates, CFII, MEI, assistant chief flight instructor

## Staff

Lisa Broweleit, program support supervisor
Gail Darling-Tanneberg, dispatcher

## Department Information

The Department of Aviation offers two Bachelor of Science degrees.

Professional Pilot degree: Specializations in flight officer and commercial pilot
Aviation Management degree: Specializations in aviation management and aviation maintenance management.

## Accrediting Information

The aviation department holds an FAA Air Agency certificate. Ground schools and flight labs are conducted under 14CFR Part 141 of the Federal Aviation Administration regulations. CWU aviation department is a member of the University Aviation Association.

## Department Standards

## Admissions

Students must apply for acceptance into a degree or specialization. Application will be reviewed upon acceptance to CWU. Admission decisions are based on a number of factors, including grade point average, SAT/ACT scores, letters of
recommendation, financial capability, and a written statement of purpose, as outlined in the aviation department application form. Transportation Security Administration (TSA) regulations require proof of citizenship for pilots.

## Financial Obligations

Flight training fees are paid by the student and will be in addition to normal university tuition and fees (see aviation department website for current fees). Additional fees are required for AVP 444, AVP 445, and AVP 489 (see online student registration handbook). Additional costs for students enrolled in flight labs include current FAA charts, pilot supplies, and optional personal aviation headphones.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/aviation or by contacting the department directly.

## Aviation Management BS, Aviation Management Specialization

## Aviation Management Core Requirements

The Department of Aviation at CWU offers two undergraduate degree programs. One of them is Bachelor Science in Aviation Management (major). Currently, this major has two specializations i.e., (i) Aviation Management Specialization; and (ii) Aviation Maintenance Management Specialization.

This program prepares graduates for a variety of administrative and management positions in the aviation industry.

## Graduation Requirements

1. Student should have completed a total of 180 credits.
2. Student should have satisfied the Program Core requirements to a total of 44 core credits.
3. Student should satisfy the 45 credits of Specialization requirements.

## Program Requirements

Bachelor of Science in Aviation Management requires a total of 78-91 credits, of which 44 credits are core courses requirement.

## Core Courses

- ADMG 271 - Business Math Applications Credits: (4)
- AVM 330 - Aviation Law Credits: (3)
- AVM 333 - Air Transportation Credits: (4)
- AVM 334 - Airport Management Credits: (3)
- AVM 335 - Aviation Management Credits: (3)
- AVM 338 - Airport Administration and Finance Credits: (4)
- AVM 350-Aviation Career Planning and Professionalism Credits: (3)
- AVM 417 - Aviation Safety Management Credits: (4)
- AVM 422 - Legal Ethics in Aviation Credits: (4)
- AVM 424 - Aviation Security Credits: (4)
- AVM 426 - International Aviation Management Credits: (4)
- AVM 430 - Airport/Airline Marketing Credits: (4)

Total Core Credits: 44

Aviation Management Specialization Courses
Select 5 of the following courses Credits: (15-28)

- ADMG 371 - Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- AVM 332 - Aviation Legislation Credits: (4)
- AVM 418 - Threat and Error Management in Aviation Credits: (3)
- AVM 420 - Aviation Labor Relations Credits: (4)
- AVM 434 - Airport Operations Credits: (3)
- AVM 438 - Airport Planning and Design Credits: (4)
- AVM 490 - Cooperative Education Credits: (1-12)

Select 4 of the following courses Credits: (19-20)

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- HRM 381 - Management of Human Resources Credits: (5)
- MGT 380-Organizational Management Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)

Total Specialization Credits: 34-48
Total Credits: 78-92

College and Department Information
Aviation Department
College of Education and Professional Studies

# Aviation Management BS, Maintenance Management Specialization 

Aviation Management Core Requirements

The Department of Aviation at CWU offers two undergraduate degree programs. One of them is Bachelor Science in Aviation Management (major). Currently, this major has two specializations i.e., (i) Aviation Management Specialization; and (ii) Aviation Maintenance Management Specialization.

This program prepares graduates for a variety of administrative and management positions in the aviation industry.

## Graduation Requirements

1. Student should have completed a total of 180 credits.
2. Student should have satisfied the Program Core requirements to a total of 44 core credits.
3. Student should satisfy the 45 credits of Specialization requirements.

## Program Requirements

Bachelor of Science in Aviation Management requires a total of 78-91 credits, of which 44 credits are core courses requirement.

Core Courses

- ADMG 271 - Business Math Applications Credits: (4)
- AVM 330 - Aviation Law Credits: (3)
- AVM 333 - Air Transportation Credits: (4)
- AVM 334 - Airport Management Credits: (3)
- AVM 335-Aviation Management Credits: (3)
- AVM 338 - Airport Administration and Finance Credits: (4)
- AVM 350-Aviation Career Planning and Professionalism Credits: (3)
- AVM 417 - Aviation Safety Management Credits: (4)
- AVM 422 - Legal Ethics in Aviation Credits: (4)
- AVM 424 - Aviation Security Credits: (4)
- AVM 426 - International Aviation Management Credits: (4)
- AVM 430 - Airport/Airline Marketing Credits: (4)

Total Core Credits: 44

Maintenance Management Specialization
This specialization prepares graduates for entry into aviation maintenance and management in the aviation industry or FAA.

Students enrolling in this specialization must already possess an FAA Airframe and Powerplant certificate and/or graduation certificate from a Federal Aviation Administration-approved 14CFR Part 147 school. (Certificate not offered at Central Washington University.) Forty-five credits of the Airframe and

Powerplant certificates will be accepted upon completion of all other degree requirements.

Maintenance Management Specialization Courses

- Airframe and Powerplant Certificates Credits: (45)
(Certificate not offered at Central Washington
University. Forty-five credits of the Airframe and Powerplant Certificate will be accepted upon completion of all other degree requirements. See program advisor.)

Total Specialization Credits: 45
Total Credits: 89

College and Department Information

Aviation Department
College of Education and Professional Studies

## Aviation: Professional Pilot BS, Commercial Pilot Specialization

This specialization prepares graduates for commercial aviation employment opportunities. Students must earn a minimum grade of B- in CWU's FAA approved ground school courses to receive an FAA course graduation certificate as required by FAR141.

To be eligible for the FAA Restricted ATP certificate, students must complete the instrument/commercial pilot course with CWU in-house flight training and in the manner approved by the FAA under FAR Part 141 and the R-ATP LOA.

## Professional Pilot Core Requirements

The Professional Pilot major prepares graduates for entry level careers and leadership roles in the aviation community. Students select one of two technical specializations leading to a Bachelor of Science degree in Professional Pilot. The Aviation curriculum is designed to provide a solid foundation in the liberal arts as well as a thorough education and training in a technical discipline.

- AVM 330-Aviation Law Credits: (3)
- AVM 350-Aviation Career Planning and Professionalism Credits: (3)
- AVM 418 - Threat and Error Management in Aviation Credits: (3)
- AVP 101 - Private Pilot Flight Laboratory I Credits: (2)
- AVP 102 - Private Pilot Flight Laboratory II Credits: (2)
- AVP 103 - Private Pilot Flight Laboratory III Credits: (2)
- AVP 131 - Introduction to Aviation Credits: (1)
- AVP 141 - Principles of Flight I Credits: (4)
- AVP 142 - Principles of Flight II Credits: (4)
- AVP 201 - Instrument Pilot Flight Laboratory I Credits: (2)
- AVP 202 - Instrument Pilot Flight Laboratory II Credits: (2)
- AVP 203 - Instrument Pilot Flight Laboratory III Credits: (2)
- AVP 211 - Meteorology for Pilots Credits: (4)
- AVP 221 - Aircraft Systems I - Reciprocating Credits: (4)
- AVP 237 - Outdoor Survival for Pilots Credits: (1)
- AVP 241 - Instrument Flight I Credits: (4)
- AVP 242 - Instrument Flight II Credits: (3)
- AVP 304-Commercial Pilot Flight Laboratory I Credits: (2)
- AVP 305-Commercial Pilot Flight Laboratory II Credits: (2)
- AVP 306-Commercial Pilot Flight Laboratory III Credits: (2)
- AVP 312 - Aviation Weather Services Credits: (3)
- AVP 319- Applied Aerodynamics Credits: (3)
- AVP 340 - Human Factors in Flight Credits: (5)
- AVP 352 - Multiengine Principles Credits: (2)
- AVP 354 - Commercial Pilot Credits: (4)
- AVP 470 - Professional Pilot Capstone Credits: (1)

Total Core Credits: 70

Commercial Pilot Specialization Courses Credits: 20

Any AVM or AVP course(s) that is/are not used in required core course.

Total Credits: 90

College and Department Information

Aviation Department
College of Education and Professional Studies

## Aviation: Professional Pilot BS, Flight Officer Specialization

[^2]select one of two technical specializations leading to a Bachelor of Science degree in Professional Pilot. The Aviation curriculum is designed to provide a solid foundation in the liberal arts as well as a thorough education and training in a technical discipline.

- AVM 330 - Aviation Law Credits: (3)
- AVM 350-Aviation Career Planning and Professionalism Credits: (3)
- AVM 418 - Threat and Error Management in Aviation Credits: (3)
- AVP 101 - Private Pilot Flight Laboratory I Credits: (2)
- AVP 102 - Private Pilot Flight Laboratory II Credits: (2)
- AVP 103 - Private Pilot Flight Laboratory III Credits: (2)
- AVP 131 - Introduction to Aviation Credits: (1)
- AVP 141 - Principles of Flight I Credits: (4)
- AVP 142 - Principles of Flight II Credits: (4)
- AVP 201 - Instrument Pilot Flight Laboratory I Credits: (2)
- AVP 202 - Instrument Pilot Flight Laboratory II Credits: (2)
- AVP 203 - Instrument Pilot Flight Laboratory III Credits: (2)
- AVP 211 - Meteorology for Pilots Credits: (4)
- AVP 221 - Aircraft Systems I - Reciprocating Credits: (4)
- AVP 237 - Outdoor Survival for Pilots Credits: (1)
- AVP 241 - Instrument Flight I Credits: (4)
- AVP 242 - Instrument Flight II Credits: (3)
- AVP 304-Commercial Pilot Flight Laboratory I Credits: (2)
- AVP 305 - Commercial Pilot Flight Laboratory II Credits: (2)
- AVP 306 - Commercial Pilot Flight Laboratory III Credits: (2)
- AVP 312 - Aviation Weather Services Credits: (3)
- AVP 319-Applied Aerodynamics Credits: (3)
- AVP 340 - Human Factors in Flight Credits: (5)
- AVP 352 - Multiengine Principles Credits: (2)
- AVP 354 - Commercial Pilot Credits: (4)
- AVP 470 - Professional Pilot Capstone Credits: (1)

Total Core Credits: 70

Flight Officer Specialization Courses Credits: 40

- AVM 333-Air Transportation Credits: (4)
- AVP 348 - Air Carrier Operations Credits: (4)
- AVP 401 - Multiengine Flight Laboratory Credits: (2)
- AVP 402 - Certified Flight Instructor Laboratory Credits: (2)
- AVP 410 - Crew Resource Management Credits: (3)
- AVP 444 - Multiengine FTD, Baron G58 Credits: (2)
- AVP 448 - Fundamentals of Flight Instruction Credits: (5)
- AVP 469- Turbojet Operations Credits: (4)
- AVP 489 - Turbo FTD, CRJ-200 Credits: (3)
- Department-approved electives: any AVM or AVP course not used in required course: Credits (4)

Total Credits: 110

College and Department Information
Aviation Department
College of Education and Professional Studies

## Aviation Management Minor

An aviation management minor provides students with an introduction to several key areas of aviation management.

Required Courses

- AVM 330 - Aviation Law Credits: (3)
- AVM 334 - Airport Management Credits: (3)
- AVM 335 - Aviation Management Credits: (3)
- AVM 417 - Aviation Safety Management Credits: (4)
- MGT 380-Organizational Management Credits: (5)

Choose two courses from the following:

- AVM 333-Air Transportation Credits: (4)
- AVM 434 - Airport Operations Credits: (3)
- AVM 438 - Airport Planning and Design Credits: (4)

Total Credits: 25-26

College and Department Information
Aviation Department
College of Education and Professional Studies

## Aviation Professional Pilot Minor

A program designed for students who wish to earn a pilot's license (private pilot certificate). Flight training is taken through CWU's approved flight training operator at Bowers Field in Ellensburg, Washington, and may be taken under FAR Part 61 or Part 141.

Required Courses

- AVP 101 - Private Pilot Flight Laboratory I Credits: (2)
- AVP 102 - Private Pilot Flight Laboratory II Credits: (2)
- AVP 103 - Private Pilot Flight Laboratory III Credits: (2)
- AVP 141 - Principles of Flight I Credits: (4)
- AVP 142 - Principles of Flight II Credits: (4)
- AVP 211 - Meteorology for Pilots Credits: (4)
- AVP 221 - Aircraft Systems I - Reciprocating Credits: (4)
- Department-approved AVM or AVP electives Credits: (6)

Total Credits: 24
College and Department Information
Aviation Department
College of Education and Professional Studies

# Biological Sciences Department 

College of the Sciences
Ellensburg
Science Bldg., room 338
Mail Stop 7537
509-963-2731
Fax: 509-963-2730
www.cwu.edu/biology
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
James E. Johnson, PhD

## Professors

Daniel D. Beck, PhD, physiological ecology and herpetology
Lucinda Carnell, PhD , molecular behavioral genetics
Tom R. Cottrell, PhD, plant ecology (emeritus)
David M. Darda, PhD, evolutionary vertebrate morphology, herpetology
Kristina A. Ernest, PhD, terrestrial and community ecology
Jason T. Irwin, PhD, animal physiology
Paul W. James, PhD, ecology and fisheries biology
James E. Johnson, PhD, mycology, systematics
Sheldon R. Johnson, PhD, zoophysiology, mammalogy (emeritus)
Holly C. Pinkart, PhD, microbiology, microbial ecology
Mary E. Poulson, PhD, plant physiology
Wayne S. Quirk, PhD, sensation and perception, neuroscience Ian J. Quitadamo, PhD, science education, cell and molecular biology
Linda A. Raubeson, PhD, evolutionary biology and genetics
Stamford D. Smith, PhD, entomology (emeritus)
Lixing Sun, PhD , behavioral ecology and evolution
R. Steven Wagner, PhD , conservation genetics and
herpetological science

## Associate Professors

Clay Arango, PhD, stream ecology and nitrogen biogeochemistry
Jennifer Dechaine, PhD, plant biology
Blaise Dondji, PhD, human physiology, microbiology, parasitology, immunology
Alison Scoville, PhD, ecological and evolutionary genomics

Gabrielle Stryker, PhD, microbiology, immunology and parasitology

## Assistant Professors

April Binder, PhD, molecular developmental biology

## Lecturers

Lucy Bottcher, PhD, ecologist, herpetologist
Raymon Donahue, PhD, plant ecology, physiology
Eric Graham, PhD, plant ecology
Fabiola Serra-Fuertes, DVM, animal biology, physiology

## Staff

Emil Babik, engineering technician
Jonathan Betz, instructional classroom support technician
Eric Foss, instructional classroom support technician
Mari Knirck, fiscal specialist I
Kariann Linnell, secretary supervisor
Ormacinda White, engineering technician
Mark Young, instructional classroom support technician

## Department Information

The Department of Biological Sciences provides the biological component of the liberal arts education at the university. We promote student understanding of biological concepts relevant to the individual and society, and foster an appreciation of scientific inquiry. Evolution is the unifying theme of our curriculum. Our students obtain a broad education, covering a wide variety of biological disciplines. We focus on the student. Classes are small, facilitating hands-on experience, interactions with faculty, and opportunities for both undergraduate and graduate research. We offer a full complement of competitive pre-professional programs, strong programs in regional field biology, and a quality program for secondary biology educators.

## Admission Requirements

To be admitted to a biology major or minor, all students must:

1. Meet with an advisor

Advisors are normally assigned by the biology department upon admission to the major. However, it is highly recommended that a student talk with an advisor well before being admitted to the major. Any biology department faculty member may serve as an advisor but different faculty members advise in different areas. Please meet with your advisor as early in your academic career as possible to begin planning your program.
2. Complete and file an application to the major by the beginning of the junior year.

A formal application to the biology major must be submitted with your advisor's approval. The entry-to-major qualifications must be met and application should be made by the beginning of the junior year. Application forms can be obtained from the advisor, the department office, or online at
www.cwu.edu/biology/forms-and-information.
3. Complete and file a program of study by the end of the junior year.

To graduate, each student must have on file in the biology department and in the registrar's office, an official Course of Study. The Course of Study documents a student's individual degree program and lists the required and elective courses necessary for successful program completion. It is prepared by
the student in conjunction with his or her advisor and should be approved by the student, advisor, and department chair at least one year prior to graduation. Students should meet with their advisor regularly to discuss their progress. Course of Study forms can be obtained from the advisor, the department office, or online at: www.cwu.edu/biology/forms-and-information.

## Student Scholarly Activities

The department is student oriented and provides a diversity of laboratory and field experiences. Students are encouraged to participate in a variety of activities.

- Research activities: Students are encouraged to seek out a faculty member who is engaged in active research that complements the student's career goals. Students who begin research early and continue it through their career in the department gain a better understanding of their profession and are more competitive in the job market or in graduate school admissions.
- Field program: The department believes in the importance of exposing students to biological field experiences. In addition to those provided by regular courses, the department offers summer field courses and trips to biologically interesting areas during breaks between quarters.


## Student Organizations

Biology Club: All biology students are encouraged to join the Biology Club. This student-run organization meets regularly to discuss academic planning and career opportunities in biology. The club performs service activities and plans recreational outings. See its website at www.cwu.edu/biology.

Beta Beta Beta: BBB is the undergraduate National Biological Sciences Honorary Society. Students maintaining a high-grade point average ( 3.0 or higher) are encouraged to apply.

Various organizations for students interested in health professions (medicine, dentistry, etc.) are available to provide information, support, and opportunities for service.

## Fees

Laboratory or field fees are assessed for many of the department's lab courses. These fees are used as partial support for purchasing lab materials or providing transportation costs.

## General Consideration for Biology Majors and Minors

- The biological sciences department must approve each student's program at least one academic year preceding graduation
- CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. PHYS 111 has a prerequisite of high school algebra and trigonometry. PHYS 181 has a prerequisite or corequisite of MATH 172, 173, and 272. BIOL 360 has a prerequisite of MATH 153.
- Credits earned in CHEM 181, 181LAB, and PHYS 111 will be allowed in partial fulfillment of the natural science breadth requirements as well as the requirements of the biology major or minor.
- A maximum of 15 credits in BIOL 295, BIOL 490, BIOL 295 and BIOL 496 may be included in the major (as electives in the BS degrees).
- A major in biological sciences incorporates classes from mathematics and other sciences. A full year of introductory biology and introductory chemistry is required for enrollment in upper-division biology classes. The introductory chemistry sequence (CHEM $181,182,183$ ) is pre- or co-requisite to the introductory biology series (BIOL 181, 182, 183). Students are urged to complete these two introductory series in their first year or as early in their academic career as possible.


## Graduation Requirements

- You must have a cumulative GPA of at least 2.25 in your major.
- End-of-major assessment must be completed, usually in conjunction with BIOL 499S. This requirement helps to assess whether the department has fulfilled its instructional objectives and provides us with information that will enable us to continuously improve our programs and courses.
- Application for the bachelor's degree must be filed by the second Friday of the quarter preceding the quarter in which the degree is to be received. Complete instructions and deadlines are available in Registrar Services.


## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/biology or by contacting the department directly.

## Biology Major, BA

The BA degree program is designed for students preparing to incorporate biology into broader careers such as teaching, health sciences (PA, nursing, pre-PT), business, or law. It is also the appropriate major for students seeking endorsement in teaching high school biology.

A BS is recommended for students who anticipate pursuing a graduate degree in biology, health programs (MD, DO, DVM, DDS, Pharm D.) or biology careers that might require training in a greater depth of biological subdisciplines. See a faculty advisor in the Biology Department as soon as possible to develop a course of study and to determine which degree program to pursue.

## Teaching Endorsement:

This major partially satisfies the criteria for a teaching endorsement in Biology (5-12), qualifying students to teach biology at the high school, middle, or junior high levels. Students who successfully complete the Biology BA and STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program
courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the biology teaching advisor as soon as possible to develop a course of study.

Required Courses Credits: 45

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 499S - Senior Seminar Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)

Select from the following for 18-26 credits:

- 1 course from the Biological Diversity Group Credits: (4-5)
- 1 course from the Ecology Group Credits: (4-5)*
- 1 course from the Evolution Group Credits: (4-6)*
- 1 course from the Molecular/Cell Group Credits: (35)*
- 1 course from the Structure/Function Group Credits: (3-6)
(*NOTE: Courses can only be counted once.)

Total Credits: 63-71

Biological Diversity Group

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Structure/Function Group

- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

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## Biology BS, Biology Teaching Specialization

This major satisfies the criteria for an endorsement in biology and qualifies students to teach biology at the high school, middle school, or junior high levels. Students should consider working toward endorsement in a second area such as chemistry, Earth science, physics, middle-level science, or middle-level mathematics. Students taking this major are required to apply to the Teacher Certification Program and complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum, with the exception of EFC 416 and EFC 350 ( 39 total credits required). Students completing this program are required to demonstrate knowledge, skill, and disposition proficiency through a program portfolio prior to student teaching. Students must pass the WEST-E exam for biology to receive a biology endorsement.

Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the biological sciences department at least one academic year preceding graduation. All students in the BS biology major must complete all BS core requirements, plus additional specific requirements. Additionally, students will need to choose a specified number of courses from different groupings of upper-division courses. A maximum of 15 credits in BIOL 295, BIOL 490, BIOL 495, and BIOL 496 may be included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 181 has a pre or co-requisite of CHEM 181.

Biology Teaching Core Requirements Credits: (39)

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 492 - Laboratory Experience in Teaching Biological Sciences Credits: (2)
- SCED 301 - Interdisciplinary Science and Engineering Inquiry Credits: (5)
- SCED 324 - Science Education in Middle and Secondary Schools I Credits: (3)
- SCED 325 - Science Education in Middle and Secondary Schools II Credits: (3)
- SCED 487 - Teaching Middle and Secondary Science Seminar Credits: (2)

General Chemistry and Laboratory Credits: (23)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)

Additional Required Courses Credits: 20-30

- 1 course from the Biological Diversity Group Credits: (4-5) BIOL 323, Microbiology recommended.
- 1 course from the Ecology Group Credits: (4-5) BIOL 360, General Ecology recommended.
- 1 course from the Evolution Group Credits: (4-5) BIOL 470, Mechanisms of Evolution recommended.
- 1 course from the Molecular and Cell Group Credits: (5) BIOL 430, Cell Biology or BIOL 435, Molecular Biotechnology recommended.
- 1 course from the Structure/Function Group Credits: (3-10) BIOL 353, BIOL 355, and/or BIOL 356 recommended.

Biological Diversity Group

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)


## Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Structure/Function Group

- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Total Credits: 82-92
Professional Education Program Credits: 50
Professional Education Program
Total Credits: 132-142

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## Biology BS, Biomedical Science Specialization

The biomedical science specialization will serve students that are interested in pursuing careers in human health (medicine, dentistry, optometry, physical therapy, pharmacy) and veterinary medicine. This specialization allows for the study of human biology, together with a core of fundamental physical science principles (chemistry and physics). This specialization will allow students to apply these physical principals to the study of biological systems, which is an essential requirement of professional health programs in medicine, dentistry, optometry, physical therapy, pre-pharmacy and physician assistant programs. The biomedical science specialization offers individualized academic plans to help each student achieve his or her goals in the biomedical field.

Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the biological sciences department at least one academic year preceding graduation. All students in the BS biology major must complete all BS core requirements, plus additional specific requirements. Additionally, students will need to choose a specified number of courses from different groupings of upper-division courses. A maximum of 15 credits in BIOL 295, BIOL 490, BIOL 495, and BIOL 496 may be
included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 181 has pre or co-requisite of CHEM 181.

## Biology Core Requirements

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 499S - Senior Seminar Credits: (1)

General Chemistry and Laboratory Credits: (15)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Total Core Credits: 40

Select from the following sequences Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113- Introductory Physics III with Laboratory Credits: (5) OR
- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5) OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Additional Required Courses Credits: 19-28

- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)
- 3 courses* from the Ecology, Evolution, Molecular/Cell and/or Structure/Function Groups Credits: (11-20)
(*NOTE: Courses must come from three different groups.)

Department-Approved Electives Credits: 17-26

Total Credits: 100

Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)
- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Electives

Courses from the following group may also be used as electives:

## Biological Diversity Group

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

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## Biology BS, Ecology and Evolutionary Biology Specialization

Ecology is the study of how organisms interact with their physical and biological environment. Evolution considers how
populations change over time to generate the rich diversity of life on earth and is the unifying theory of biology. The ecology and evolutionary specialization is designed for students broadly interested in basic and applied biology, natural resource management, agriculture, ecological restoration, conservation biology, disease dynamics, animal behavior, and biological research. Students following this specialization will gain experience in natural history, field research, and experimental design. Potential careers may be found in federal, state, and tribal agencies, or private environmental consulting firms, research laboratories, and natural history museums. Students interested in graduate study should work closely with their advisor to tailor this specialization to their particular field of interest.

Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the Biological Sciences Department at least one academic year preceding graduation. All students in the BS Biology major must complete all BS core requirements, plus additional specific requirements. Additionally, students will need to choose a specified number of courses from different groupings of upper division courses. A maximum of 15 credits in BIOL 295, BIOL 490, BIOL 495, and BIOL 496 may be included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 181 has a pre or co-requisite of CHEM 181.

Biology Core Requirements

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183-General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 499S - Senior Seminar Credits: (1)

General Chemistry and Laboratory Credits: (15)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Total Core Credits: 40

Additional Required Courses Credits: 15

- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- MATH 170 - Intuitive Calculus Credits: (5)
- OR MATH 172 - Calculus I Credits: (5)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- OR PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- OR PHYS 181-General Physics I with Laboratory Credits: (5)

Select from the following for 19-30 credits.

- 1 course from the Biological Diversity Group Credits: (4-5)
- 1 course from the Ecology Group Credits: (4-5)*
- 1 course from the Evolution Group Credits: (4-5)*
- 1 additional course from the Ecology OR Evolution Group Credits: (4-5)*
- 1 additional course from the Molecular/Cell OR Structure/Function Group Credits: (3-10)
(*NOTE: Courses can only be counted once.)
Department-Approved Electives Credits: 15-26
Total Credits: 100
Biological Diversity Group
- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Structure/Function Group

- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

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## Biology BS, General Biology Specialization

The BS Biology major offers undergraduate students a degree program with depth of training in the biological sciences and supporting fields. This program prepares students for immediate entrance into careers in biological sciences or for graduate work (for preparation for teaching high school biology, see biology teaching specialization).

Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the biological sciences department at least one academic year preceding graduation. All students in the BS Biology major must complete all BS core requirements, plus additional specific requirements. Additionally, students will need to choose a specified number of courses from different groupings of upper division courses. A maximum of 15 credits in BIOL 295, BIOL 490, BIL 495 and BIOL 496 may be included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 181 has a pre or co-requisite of CHEM 181.

## Biology Core Requirements

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 499S - Senior Seminar Credits: (1)

General Chemistry and Laboratory Credits: (15)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Total Core Credits: 40

Additional Required Courses Credits: 10

- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- OR PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- OR PHYS 181-General Physics I with Laboratory Credits: (5)

Select from the following for 20-30 credits.

- 1 course from the Biological Diversity Group Credits: (4-5)
- 1 course from the Ecology Group Credits: (4-5)*
- 1 course from the Evolution Group Credits: (4-5)*
- 1 course from the Molecular/Cell Group Credits: (5)*
- 1 course from the Structure/Function Group Credits: (3-10)
(*NOTE: Courses can only be counted once.)

Department-Approved Electives Credits: 20-30

Total Credits: 100

Biological Diversity Group

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Structure/Function Group

- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

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## Biology BS, Molecular and Cell Biology Specialization

Molecular and Cell Biology is the study of fundamental processes that form the basis of biological life and the techniques used to study these processes. The study of molecular and cell biology facilitates understanding of a wide variety of disciplines, including genetics, developmental biology, physiology, and evolutions of organisms. The goal of the MCB emphasis is to prepare graduates to be competitive in applications for entry into graduate degree programs, professional programs in the biomedical fields, or jobs in biomedical/agricultural research labs in government and industry.

Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the Biological Sciences Department at least one academic year preceding graduation. All students in the BS Biology major must complete all BS core requirements, plus additional specific requirements. Additionally, students will need to choose a specified number of courses from different groupings of upper division courses. A maximum of 15 credits in BIOL 295, BIOL 490, BIOL 495, and BIOL 496 may be included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 181 has a pre or co-requisite of CHEM 181.

Biology Core Requirements

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 499S - Senior Seminar Credits: (1)

General Chemistry and Laboratory Credits: (15)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183-General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Total Core Credits: 40

Additional Required Courses Credits: 21

- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)
- CHEM 431 - Biochemistry I Credits: (3)

Select from the following for 12-19 credits.

- 1 course from the Molecular/Cell Group Credits: (5)
- 2 courses* from the Ecology, Evolution, and/or Structure/Function Groups Credits: (7-14)
(*NOTE: Courses must come from two different groups.)

Department-Approved Electives Credits: 20-27

Total Credits: 100

## Ecology Group

- BIOL 360 - General Ecology Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 420 - Environmental Microbiology Credits: (5)
- BIOL 461 - Community Ecology Credits: (3)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Evolution Group

- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 421 - General Virology Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 470 - Mechanisms of Evolution Credits: (5) (NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Molecular and Cell Group

- BIOL 323 - Microbiology Credits: (5)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- BIOL 431 - The Cell Biology of Cancer Credits: (3)
- BIOL 431LAB - The Cell Biology of Cancer Lab Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Structure/Function Group

- BIOL 343 - Plant Anatomy Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- BIOL 354 - Developmental Biology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- AND BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- BIOL 422 - Immunology Credits: (5)
- BIOL 423 - Techniques in Immunology and Virology Credits: (5)
- BIOL 426 - Medical Microbiology Credits: (3)
- BIOL 426LAB - Medical Microbiology Laboratory Credits: (2)
- BIOL 441 - Plant Physiology Credits: (5)
- BIOL 454 - Histology Credits: (3)
- BIOL 455 - Integrative Animal Physiology Credits: (5)
- BIOL 457 - Fundamentals of Neuroscience Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)

Electives
Additionally, courses from the following group may also be used as electives:

Biological Diversity Group

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 341 - Plant Taxonomy Credits: (5)
- BIOL 344 - Dendrology Credits: (4)
- BIOL 351 - General Entomology Credits: (5)
- BIOL 352 - Parasitology Credits: (5)
- BIOL 421 - General Virology Credits: (5)
- BIOL 443 - Mycology Credits: (5)
- BIOL 444 - Algae and Bryophytes Credits: (5)
- BIOL 445 - Field Mycology Credits: (5)
- BIOL 450 - Ichthyology Credits: (4)
- BIOL 451 - Herpetology Credits: (4)
- BIOL 452 - Ornithology Credits: (4)
- BIOL 453 - Mammalogy Credits: (5)
(NOTE: Courses are listed in multiple groups; a course may only count in one area.)


## Registered Microbiologists

With guidance from their advisor, students following the molecular and cell biology specialization will be eligible to become registered microbiologists (National Registry of Microbiologists, American Academy of Microbiology) upon completing the following requirements:

1. A minimum of a baccalaureate degree in biological science with 30 quarter credits in microbiology courses.
2. Acceptable experience equivalent to one year of fulltime work in a microbiology laboratory related to the
specialty area in which certification is sought. Experience must have been gained within the immediate past three years. Certification as a conditional registrant is offered to individuals who possess the academic qualifications for registered microbiologist, but who lack the required year of fulltime laboratory experience.

College and Department Information

Biological Sciences Department
College of the Sciences

## Biology Minor

Not available to biology majors.
Required Courses

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)

General Chemistry and Laboratory: Credits 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183-General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Electives in Biological Sciences: Credits 10

Total Credits: 44

College and Department Information

Biological Sciences Department
College of the Sciences

## Biology: Teaching Secondary Minor

This minor is restricted to students working on a teaching major in chemistry, earth science, middle-level science teaching or physics if not the chosen designated science area. Students completing this minor are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. Students may satisfy the biology reaching requirement by either taking BIOL 492 or through an
independent live science teaching experience. In addition, students must pass the WEST-E exam for biology to receive a biology endorsement.

## Required Courses

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183-General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 321 - Genetics Credits: (5)
- BIOL 360 - General Ecology Credits: (5)
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Total Credits: 44
College and Department Information

Biological Sciences Department
College of the Sciences

## Career and Technical Education Program

Family and Consumer Science Department Ellensburg<br>Michaelsen Hall, room 136

509-963-2304
www.cwu.edu/family-consumer/career-technical-education-teacher-preparation-program
See website for how this certificate may be used for educational and career purposes.

## Faculty and Staff

Director
Duane Dowd, PhD

## Faculty

Kim Bartel, PhD, career and technical education Scott Calahan, MEd, industrial education
Jodi Musser, MEd, business and marketing education
Robert Perkins, EdD, business and marketing education
Non-tenure Faculty
Bryan Erickson
Jay Leviton
Kevin Plambeck
Paul Randall

## Regional Coordinators

Jay Leviton
Kevin Plambeck
Paul Randall

## Career and Technical Education Teacher Preparation Certificate

This two-year competency block certificate program is intended for business or industry professionals who are interested in obtaining a career and technical teaching certificate. The program will provide the tools necessary for success in the classroom.

During the program participants will complete a mentored teaching experience or practicum each year. The program is offered through the office of Continuing Education in collaboration with Occupational Education.

## Prerequisites:

1. Current Career and Technical Education Probationary Teaching Certificate, OR
2. 6,000 hours paid occupational experience in the area you wish to teach, and fingerprint clearance from both the Washington State Patrol and the FBI must be on file at the office of Superintendent of Public Instruction (OSPI).
3. Successful completion of all three sections in the Washington Educator Skills Test - Basic (WEST-B). Test scores must be submitted prior to completing the program in order to receive CWU's recommendation for career and technical education teacher certification, OR
4. Washington State Residency Permit or professional teacher certification.

Included in each year of the program is a 70 -hour practicum. Passing grades in all courses grants the individual the competencies in general and specific safety requirement.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/family-consumer/career-technical-education-teacher-preparation-program or by contacting the department directly.

## Career and Technical Education Certificate

Included in each year of the program is a 70 -hour practicum. Passing grades in all courses grants the individual the competencies in general and specific safety requirement.

Required Courses
Block 1:

- CTE 310A - Career and Technical Education Teaching Methods Credits: (3-5) Must be taken for 4 credits.
- CTE 310B - Career and Technical Education Occupational Analysis Credits: (3-5)
Must be taken for 3 credits.
- CTE 310C - Career and Technical Education Course Organization and Curriculum Design Credits: (3-5) Must be taken for 5 credits.

Block 2:

- CTE 311A - Career and Technical Education Coordination Techniques of Cooperative Education Credits: (3-5)
Must be taken for 3 credits.
- CTE 311B - History and Philosophy of Career and Technical Education Credits: (3-5) Must be taken for 3 credits.
- CTE 311C - Career and Technical Education Student and Professional Leadership Development Credits: (3-5)
Must be taken for 4 credits.
- CTE 311D - Career and Technical Education School Law and Issues Related to Abuse Credits: (2-5) Must be taken for 2 credits.

Total Credits: 24

College and Department Information

Career and Technical Education Program
Family and Consumer Sciences Department College of Education and Professional Studies

# Center for Excellence in Science and Math Education 

College of the Sciences

Center for Excellence in Science and Math Education
Science Building, room 107
cesme@cwu.edu
509-963-2135
Mail Stop 7540
www.cwu.edu/cesme/

## Director

Martha Kurtz, PhD

## Staff

Dannica Price, engagement and outreach manager

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/cesme/ or by contacting the department directly.

## Chemistry Department

College of the Sciences
Ellensburg
Science Bldg., room 302
Mail Stop 7539
509-963-2811
www.cwu.edu/chemistry
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Anthony Diaz, PhD

## Associate Chair

Robert Rittenhouse, PhD

## Professor

Anthony Diaz, PhD, inorganic, solid state
Levente Fabry-Asztalos, PhD, organic
Anne Johansen, PhD, environmental, analytical
JoAnn Peters, PhD, organic, mechanistic
Dion Rivera, PhD, physical, analytical
Carin Thomas, PhD, biochemistry, toxicology

## Associate Professors

Gil Belofsky, PhD, organic
Yingbin Ge, PhD, physical
Todd Kroll, PhD, biochemistry
Tim Sorey, PhD, chemistry education

## Assistant Professor

Timothy Beng, PhD, organic

## Senior Lecturer

Robert Rittenhouse, PhD, general/physical

## Lecturers

Rebecca Coates, PhD, general
Derek Ricketson, PhD, general
P. Whitney Swain, PhD, general

## Staff

Emil Babik, instrument technician
Tony Brown, stockroom manager
Brian Finn, computer technician
Daniel Hall, stockroom assistant
Ian Seiler, safety officer
Lisa Stowe, secretary
Ormacinda White, instrument technician

## Department Information

The department offers three majors. In each major, courses in the first two years emphasize fundamental topics in chemistry, mathematics, and physics. Students then choose advanced courses in chemistry and related areas to complete the requirements in their major.

These majors provide opportunities for practical experience in chemistry. Students are encouraged to do research on campus with a faculty member, and to participate in the department's seminar program. Two minors are offered to supplement career related fields.

## Department Standards

Students must have earned a grade of C- or higher in all prerequisites to be admitted to a course. To graduate, all chemistry majors are required to achieve at least a 2.0 cumulative GPA and a 2.25 GPA in courses required for the major. To receive a minor in chemistry, students are required to achieve a 2.25 gpa in courses required for the minor.

## Lab Fees

All chemistry labs have fees associated with them that must be paid when registering for the course.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/chemistry or by contacting the department directly.

## Chemistry Major, BA

This BA degree program is designed for students preparing to incorporate chemistry into broader careers such as teaching, health sciences (PA, nursing, pre-PT), industry, business, and/or law. It is also the appropriate major for students seeking endorsement in teaching high school chemistry.

A BS is recommended for students who anticipate pursuing a graduate degree in chemistry, health programs (MD, DO, DVM, DDS, Pharm D, etc.) or chemistry careers that might require training in a greater depth of chemistry subdisciplines. See a faculty advisor in the Chemistry Department as soon as possible to develop a course of study and to determine which degree program to pursue.

## Teaching Endorsement Requirements:

This major partially satisfies the criteria for a teaching endorsement in Chemistry (5-12), qualifying students to teach Chemistry at the high school, middle, or junior high levels. Students who successfully complete the Chemistry BA and STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the chemistry teaching advisor as soon as possible to develop a course of study.

Chemistry BA Core Requirements
General Chemistry and Laboratory Credits: 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183-General Chemistry III Credits: (4)
- AND CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- OR CHEM 193LAB - General Chemistry III Honors Laboratory Credits: (1)

Mathematics Credits: 15

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 272 - Multivariable Calculus I Credits: (5)

Introductory, General or Life Sciences Physics Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
OR
- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5)
OR
- PHYS 181 - General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Total Core Credits: 45
Required Courses Credits: 29

- CHEM 332 - Quantitative Analysis Credits: (3)
- CHEM 332LAB - Quantitative Analysis Laboratory Credits: (2)
- CHEM 350 - Inorganic Chemistry Credits: (3)
- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)
- CHEM 381 - Physical Chemistry (Thermodynamics) Credits: (5)
- CHEM 431 - Biochemistry I Credits: (3)
- CHEM 431LAB - Biochemistry Laboratory Credits: (2)
- CHEM 488 - Colloquium Credits: (1)
- CHEM 492 - Laboratory Experience in Teaching Chemistry Credits: (2)

Department-Approved Electives Credits: 5-6

- CHEM 295 - Research Credits: (1-6)
- CHEM 345 - Environmental Chemistry Credits: (5)
- CHEM 363 - Organic Chemistry III Credits: (3)
- CHEM 363LAB - Organic Chemistry Laboratory II Credits: (2)
- CHEM 382 - Physical Chemistry (Quantum Chemistry) Credits: (3)
- CHEM 382LAB - Integrated Physical/Inorganic Laboratory I Credits: (2)
- CHEM 383 - Physical Chemistry (Quantum, Statistical Mechanics) III Credits: (4)
- CHEM 383LAB - Integrated Physical/Inorganic Laboratory II Credits: (1)
- CHEM 395 - Research Credits: (1-6)
- CHEM 432 - Biochemistry II Credits: (3)
- CHEM 433 - Biochemistry III Credits: (3)
- CHEM 433LAB - Biochemistry Lab II Credits: (2)
- CHEM 452 - Instrumental Analysis Lecture Credits: (3)
- CHEM 452LAB - Instrumental Analysis Laboratory Credits: (2)
- CHEM 473 - Transition Metal Chemistry Credits: (3)
- CHEM 495 - Senior Research Credits: (1-6)

Total Credits: 79-80
College and Department Information
Chemistry Department
College of the Sciences

## Chemistry Major, BS

The bachelor of science major is designed for students who plan a career in chemistry or related fields. The program prepares students for further study in graduate programs, or to enter the workplace directly. The BS degree is certified by the American Chemical Society if the nine department-approved electives come from a designated set of upper-division courses within chemistry. Consult your major advisor about departmentapproved electives.

Students are recommended to take MATH 273 before taking CHEM 381.

Chemistry BS Core Requirements
General Chemistry and Laboratory: Credits 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- AND CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- OR CHEM 193LAB - General Chemistry III Honors Laboratory Credits: (1)

Organic Chemistry: Credits 13

- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)
- CHEM 363 - Organic Chemistry III Credits: (3)
- CHEM 363LAB - Organic Chemistry Laboratory II Credits: (2)

Total Core Credits: 28
Required Courses
Quantitative Analysis Credits: 5

- CHEM 332 - Quantitative Analysis Credits: (3)
- CHEM 332LAB - Quantitative Analysis Laboratory Credits: (2)

Upper-Division Chemistry Credits: 14

- CHEM 350 - Inorganic Chemistry Credits: (3)
- CHEM 431 - Biochemistry I Credits: (3)
- CHEM 431LAB - Biochemistry Laboratory Credits: (2)
- CHEM 452 - Instrumental Analysis Lecture Credits: (3)
- CHEM 452LAB - Instrumental Analysis Laboratory Credits: (2)
- CHEM 488 - Colloquium Credits: (1)

Physical Chemistry Credits: 15

- CHEM 381 - Physical Chemistry (Thermodynamics) Credits: (5)
- CHEM 382 - Physical Chemistry (Quantum Chemistry) Credits: (3)
- CHEM 382LAB - Integrated Physical/Inorganic Laboratory I Credits: (2)
- CHEM 383 - Physical Chemistry (Quantum, Statistical Mechanics) III Credits: (4)
- CHEM 383LAB - Integrated Physical/Inorganic Laboratory II Credits: (1)

Introductory, General or Life Sciences Physics Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5) OR
- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5) OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Calculus Credits: 15

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 272 - Multivariable Calculus I Credits: (5)

Department-Approved Electives Credits: 9
Total Credits: 101
College and Department Information

Chemistry Department
College of the Sciences

## Chemistry Major BS, Biochemistry Specialization

This specialization is designed for students who plan a career in biochemistry or a related health science area such as medicine or dentistry. Majors may pursue further graduate studies, a career in biotechnology or a related industry.

Students are recommended to take MATH 273 before taking CHEM 381.

Chemistry BS Core Requirements
General Chemistry and Laboratory: Credits 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- AND CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- OR CHEM 193LAB - General Chemistry III Honors Laboratory Credits: (1)

Organic Chemistry: Credits 13

- CHEM 361 - Organic Chemistry I Credits: (3)
- CHEM 361LAB - Organic Chemistry Laboratory I Credits: (2)
- CHEM 362 - Organic Chemistry II Credits: (3)
- CHEM 363 - Organic Chemistry III Credits: (3)
- CHEM 363LAB - Organic Chemistry Laboratory II Credits: (2)


## Total Core Credits: 28

Required Courses Credits: 82

- BIOL 321 - Genetics Credits: (5)
- CHEM 350 - Inorganic Chemistry Credits: (3)
- CHEM 488 - Colloquium Credits: (1)

Calculus Credits: 15

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 272 - Multivariable Calculus I Credits: (5)

General Biology Credits: 15

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)

Quantitative Analysis Credits: 5

- CHEM 332 - Quantitative Analysis Credits: (3)
- CHEM 332LAB - Quantitative Analysis Laboratory Credits: (2)

Physical Chemistry Credits: 10

- CHEM 381 - Physical Chemistry (Thermodynamics) Credits: (5)
- CHEM 382 - Physical Chemistry (Quantum Chemistry) Credits: (3)
- CHEM 382LAB - Integrated Physical/Inorganic Laboratory I Credits: (2)

Biochemistry Credits: 13

- CHEM 431 - Biochemistry I Credits: (3)
- CHEM 431LAB - Biochemistry Laboratory Credits: (2)
- CHEM 432 - Biochemistry II Credits: (3)
- CHEM 433 - Biochemistry III Credits: (3)
- CHEM 433LAB - Biochemistry Lab II Credits: (2)

Introductory, General or Life Sciences Physics Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5) OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5) OR
- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5)

Department-Approved Electives Credits: 2-5

- BIOL 323 - Microbiology Credits: (5)
- BIOL 425 - Molecular Biotechnology Credits: (5)
- BIOL 430 - Cell Biology Credits: (5)
- CHEM 383 - Physical Chemistry (Quantum, Statistical Mechanics) III Credits: (4)
- AND CHEM 383LAB - Integrated Physical/Inorganic Laboratory II Credits: (1)
- CHEM 452 - Instrumental Analysis Lecture Credits: (3)
- AND CHEM 452LAB - Instrumental Analysis Laboratory Credits: (2)
- CHEM 495 - Senior Research Credits: (1-6)

Total Credits: 112-115
College and Department Information
Chemistry Department
College of the Sciences

## Chemistry Minor

Required Courses

General Chemistry and Laboratory: Credits 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- OR CHEM 193LAB - General Chemistry III Honors Laboratory Credits: (1)

Department-approved Upper-division Electives in Chemistry Credits: 16

## Total Credits: 31

College and Department Information
Chemistry Department
College of the Sciences

## Communication

## Department

## College of Arts and Humanities

Ellensburg
Lind Hall, room 109
Mail Stop 7438
509-963-1055
Fax: 509-963-1060
www.cwu.edu/communication
See website for how the communication programs may be used for educational and career purposes.

Faculty and Staff<br>Chair<br>Katharine Whitcomb, MFA

## Professors

César García, PhD, information sciences
James L. Gaudino, PhD, communication studies

## Associate Professors

Cynthia Mitchell, MBA, operations management and finance Maria Sanders, MFA, film editing

## Assistant Professors

Kevin Brett, MA, communication and society
Francesco Somaini, PhD, media studies

## Lecturers

Michael Caldwell, MFA, film and video studies
Yong Cao, ABD, communication
Emily DuPlessis, MA, communication
Jamie Gilbert, MEd, non-profit organization management
Jennifer Green, MA, cultural anthropology
Jillene Krause, ABD, communication studies
Joshua Nelson, ABD, communication studies
Melissa Johnson, MA, English, film studies
Terri Reddout, MS, communication

Patrick Smith, MFA, film and media production
Toby Staab, MEd, education
Arrington Stoll, PhD, communication
Nicholas Temple, PhD, communication studies
Jon Ward, MA, film and video studies

## Staff

Bianca Bailey, secretary senior

## Department Information

The Department of Communication prepares students to become active participants in communicating with and the shaping of modern culture in a global society. The department emphasizes student-centered instruction in gathering and disseminating written, spoken, and visual information, as well as course work in the processes, effects, and theories of human communication. The department is committed to a liberal education in written, oral, visual, and convergent media communication, as well as to training in diverse professional fields.

## Department Standards

## Admission Requirements

Admission to the Department of Communication majors in Digital Journalism, Communication Studies and Public Relations is selective. Students need to complete the application form, attach a copy of their AR Report, and submit these documents to the Department of Communication office in Bouillon Hall 232A. Only students with a minimal overall grade point average of 2.4 (Digital Journalism) or 2.7 (Communication Studies and Public Relations) will be accepted. Should students wish to change majors within the department, they must reapply to the new major.

## Completion Requirements

Once admitted to the major, students must take COM 201 and COM 207 as soon as possible. An overall average of B in these two foundational courses is required. In all other courses counted toward fulfilling major requirements, a minimum grade of C- is required. Students must also maintain an overall 2.4 (Digital Journalism) or 2.7 (Communication Studies and Public Relations) grade point average. No more than 8 credits may be counted twice in fulfilling an internal or external minor.

## Financial Obligations

Production courses required for broadcast journalism and/or film and video studies have associated lab fees.

Communication Foundation Core Requirements
COM 201 - Introduction to Mass Communication Credits: 5
COM 207 - Introduction to Human Communication Credits: 5
Total Core Credits: 10

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offerings can be found at the department website: www.cwu.edu/communication or by contacting the department directly.

## Communication Studies Major, BA

The communication studies major begins with a traditional liberal arts perspective, infuses an international/intercultural perspective, and then focuses on practical application of communication knowledge and skill. The major is intended for students who wish to be at home in a wide range of situations and cultures and who value the role of communication in creating effective relationships locally and globally. The major is also an effective foundation for advanced study (academic or professional). Students must complete the two communication foundation courses (COM 201 and COM 207) with an overall average of B , in order to graduate from the major.

Communication Foundation Core Requirements

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 207- Introduction to Human Communication Credits: (5)

Total Communication Foundation Core Credits: 10

Required Courses

- COM 251 - Small Group Dynamics Credits: (4)
- COM 253 - Interpersonal Communication Credits: (4)
- COM 302 - Intercultural Communication Credits: (4)
- COM 345 - Business and Professional Speaking Credits: (4)
- COM 350 - Persuasion and Culture Credits: (4)
- COM 365 - Organizational Communication Credits: (4)
- COM 380 - Non-Verbal Communication Credits: (4)
- COM 401 - Communication Theory Credits: (4)
- COM 450 - Advanced Public Speaking Credits: (4)
- COM 451 - Communication Analysis and Research Credits: (4)
- COM 485 - Senior Seminar Credits: (4)
- COM 489 - Portfolio Assessment Credits: (1)

Total Required Course Credits: 45

Collaboration Requirement - minimum of 4 credits

Students are required to take at least one upper division course ( 300 level or above) in a department outside the Communication Department. Collaboration course must be approved by major advisor.

Specialization or Study Abroad

## Study Abroad Option

Twelve (12) pre-approved credits from CWU or participating international institution.

Non-Study Abroad Specialization Option
Twelve (12) pre-approved credits: You must take at least eight (8) credits from Intercultural/International Communication or at least eight (8) credits from Organizational Communication.

Intercultural and International Communication

- COM 362 - Conflict and Communication Credits: (4)
- COM 402 - Gender Communication Credits: (4)
- COM 407 - Advanced Intercultural Communication Credits: (4)
- COM 490 - Cooperative Education Credits: (1-12) (May be repeated up to 4 times)

Organizational Communication

- COM 375 - Interviewing Principles and Techniques Credits: (4)
- COM 403 - Family Communication Credits: (4)
- COM 465 - Communication and Organizational Leadership Credits: (4)
- COM 490 - Cooperative Education Credits: (1-12) (Must be taken for 4 credits)

Specialization or Study Abroad Total Credits: 12
Department-approved upper-division electives in COM Credits: 4

May include COM 315.

Total Credits: 75

College and Department Information

Communication Department
College of Arts and Humanities

## Digital Journalism Major BA, Broadcast Journalism Specialization

In today's environment of converging media, successful journalists need the necessary skills and concepts to tell meaningful stories for a variety of outlets. In this major, students learn how to conceive ideas and collect and present information using words, pictures, and sounds to craft news stories that are accurate, fair, clear, and compelling. Whether destined for print, online or broadcast presentation, the focus is on preparing students to research, report and communicate news and nonfiction stories that engage audiences and make a difference in people's lives. Students will learn how to build an online platform for their journalism and how to engage with their audience. Students will also understand the ethical, legal,
historical and societal environment of journalism and the fundamental role media plays in our social, political and economic systems. A specialization in journalistic reporting and writing or broadcast journalism is required.

## Program Requirements

Students must complete the two communication foundation courses (COM 201 and COM 207) with an overall average of B, in order to graduate from the major.

Communication Foundation Core Requirements

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 207 - Introduction to Human Communication Credits: (5)

Total Communication Foundation Core Credits: 10

Digital Journalism Core

Digital Journalism Core Requirements Credits: (21)

- COM 226 - Introduction to Writing and Reporting for Digital Journalism Credits: (5)
- COM 303- Online and Social Media Strategies Credits: (5)
- COM 321 - Visual Storytelling Credits: (5)
- COM 489 - Portfolio Assessment Credits: (1)
- COM 490 - Cooperative Education Credits: (1-12) (Must take at least 5 credits total)

Select two from the following - Credits: (8)

- COM 333 - Communication Ethics Credits: (4)
- COM 369 - Mass Media and Society Credits: (4)
- COM 382 - History of American Journalism Credits: (4)
- COM 460 - Communication Law Credits: (4)

Total Digital Journalism Core Credits: 29

Broadcast Journalism Specialization

The broadcast journalism specialization builds professional skills and ethical awareness in broadcast reporting and video production, from a general knowledge of journalism and mass media studies. Courses are offered in broadcast news writing, studio and field production, and news producing and directing. Students will also get on-the-job education and training in a broadcast internship. Rigorous and demanding, this program is designed to provide a blend of theory and hands-on training in on-air and behind-the-scenes operations, which are required for graduates to enjoy successful careers in a highly competitive industry. Students will put those skills to use on CentralNewsWatch, Central's weekly student-run newscast, and also have the option of putting those skills to use at The Observer, Central's weekly student-run newspaper, and at Pulse, Central's twice-quarterly student lifestyle magazine.

Required Courses Credits: (24)

- COM 310 - Writing and Reporting for Broadcast Journalism Credits: (5)
- COM 322 - Introduction to Studio Production Credits: (4)
- COM 322LAB - Introduction to Studio Production Lab Credits: (1)
- COM 341 - Introduction to Field Production Credits: (4)
- COM 341LAB - Introduction to Field Production Lab Credits: (1)
- COM 342 - Broadcast News Producing Credits: (4)
- Advisor-approved Electives Credits: (5)

Select from the following - Credits: (12)
Must take at least 6 credits of CentralNewsWatch or
CentralNewsWatch Management.

- COM 442 - CentralNewsWatch Reporting Credits: (3)
- COM 446 - Pulse Credits: (2)
- FILM 452 - Applied Studio Production Credits: (1-2)
- COM 462 - CentralNewsWatch Management Credits: (3)
- COM 468 - Observer Credits: (1-3)

Total Specialization Credits: 36
Total Credits: 75

College and Department Information

Communication Department
College of Arts and Humanities

## Digital Journalism Major BA, Journalistic Writing and Reporting Specialization

In today's environment of converging media, successful journalists need the necessary skills and concepts to tell meaningful stories for a variety of outlets. In this major, students learn how to conceive ideas and collect and present information using words, pictures, and sounds to craft news stories that are accurate, fair, clear, and compelling. Whether destined for print, online or broadcast presentation, the focus is on preparing students to research, report and communicate news and nonfiction stories that engage audiences and make a difference in people's lives. Students will learn how to build an online platform for their journalism and how to engage with their audience. Students will also understand the ethical, legal, historical and societal environment of journalism and the fundamental role media plays in our social, political and economic systems. A specialization in journalistic reporting and writing or broadcast journalism is required. Students must
complete the communication foundation courses prior to acceptance into the journalism major.

## Program Requirements

Students must complete the two communication foundation courses (COM 201 and COM 207) with an overall average of B, in order to graduate from the major.

Communication Foundation Core Requirements

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 207 - Introduction to Human Communication Credits: (5)

Total Communication Foundation Core Credits: 10

Digital Journalism Core
Digital Journalism Core Requirements Credits: (21)

- COM 226 - Introduction to Writing and Reporting for Digital Journalism Credits: (5)
- COM 303- Online and Social Media Strategies Credits: (5)
- COM 321 - Visual Storytelling Credits: (5)
- COM 489 - Portfolio Assessment Credits: (1)
- COM 490-Cooperative Education Credits: (1-12) (Must take at least 5 credits total)

Select two from the following - Credits: (8)

- COM 333 - Communication Ethics Credits: (4)
- COM 369 - Mass Media and Society Credits: (4)
- COM 382 - History of American Journalism Credits: (4)
- COM 460 - Communication Law Credits: (4)

Total Digital Journalism Core Credits: 29

Journalistic Writing and Reporting Specialization

The journalistic writing and reporting specialization teaches students the skills, concepts and perspectives they need to be successful in print and online media. Students will learn how to conceive story ideas, gather information, write and edit stories, incorporate digital and multimedia elements into those stories, and present those stories for print and/or online publication. Students will put those skills to use on The Observer, Central's weekly student-run newspaper, and also have the option of putting those skills to use at Pulse, Central's twice-quarterly student lifestyle magazine, and at Newswatch, Central's weekly student-run newscast. They will also get on-the-job education and training in a print or online internship.

## Required Courses

- COM 308 - Public Affairs Reporting and Writing Credits: (5)
- COM 347 - Copy Editing Credits: (4)
- COM 464 - Nonfiction Multimedia Storytelling Credits: (5)
- COM 466 - Investigative Reporting and Writing Credits: (3)
- COM 466LAB - Investigative Reporting and Writing Lab Credits: (2)

Select one from the following - Credits: (4)

- COM 408 - Feature Writing Credits: (4)
- COM 409 - Magazine Freelancing Credits: (4)
- COM 486 - Advanced Journalism Seminar Credits: (4)

Select from the following - Credits: (12)
Must take at least 6 credits of Observer.

- COM 442 - CentralNewsWatch Reporting Credits: (3)
- COM 446 - Pulse Credits: (2)
- COM 468 - Observer Credits: (1-3)
- COM 478 - Advanced Newspaper Editing Credits: (3-6)

Total Specialization Credits: 35
Total Credits: 74
College and Department Information

Communication Department
College of Arts and Humanities

## Public Relations Major, BA

Public relations has become an indispensable part of any organization, company, institution, or government trying to create a body of public opinion to support its mission, vision, or values. Understood as a management function in modern organizations in the corporate world, this same professional level has been adopted by NGOs, non-profit organizations, and even governments and countries as a whole. This new scenario offers plenty of opportunities for multifaceted public relations practitioners with skills in written and interpersonal communication, research, negotiation, leadership, creativity, logistics, and problem solving.

Students must complete the two communication foundation courses (COM 201 and COM 207) with an overall average of B, in order to graduate from the major.

Communication Foundation Core Requirements

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 207 - Introduction to Human Communication Credits: (5)

Total Communication Foundation Core Credits: 10

Required Courses

- COM 208 - Introduction to Public Relations Writing Credits: (4)
- COM 270 - Introduction to Public Relations Credits: (4)
- COM 345 - Business and Professional Speaking Credits: (4)
- COM 370 - Advanced Public Relations Writing Credits: (4)
- COM 470 - Public Relations Strategies Credits: (4)
- COM 475 - Public Relations Management Credits: (4)
- COM 489 - Portfolio Assessment Credits: (1)
- COM 490 - Cooperative Education Credits: (1-12) (must be taken for 5 credits)
- MKT 360 - Principles of Marketing Credits: (5)

Select eight (8) credits in media from the following:

- COM 303- Online and Social Media Strategies Credits: (5)
- COM 442 - CentralNewsWatch Reporting Credits: (3)
- COM 446 - Pulse Credits: (2)
- COM 468 - Observer Credits: (1-3)
- COM 478 - Advanced Newspaper Editing Credits: (3-6)
- COM 481 - Central Communication Agency Credits: (2)
- COM 483 - Advanced Central Communication Agency Credits: (3)

Select eight (8) credits in public relations specializations from the following:

- COM 371 - Event Planning and Management Credits: (4)
- COM 472 - Global Public Relations Credits: (4)
- COM 473 - Crisis Communication Management Credits: (4)
- COM 487 - Advanced Public Relations Seminar Credits: (4)

Select fourteen (14) pre-approved upper-division elective credits from the following:

Student may choose additional COM course with advisor preapproval. Credits cannot be counted twice in the major and electives.

- COM 300 - Media Research Credits: (5)
- COM 302 - Intercultural Communication Credits: (4)
- COM 305 - Advertising Copywriting Credits: (4)
- COM 312 - Introduction to Non-Profit Leadership Credits: (4)
- COM 315 - Studies in Communication Credits: (1)
- COM 321 - Visual Storytelling Credits: (5)
- COM 333 - Communication Ethics Credits: (4)
- COM 347 - Copy Editing Credits: (4)
- COM 348 - Publication Design Credits: (4)
- COM 350 - Persuasion and Culture Credits: (4)
- COM 362 - Conflict and Communication Credits: (4)
- COM 365 - Organizational Communication Credits: (4)
- COM 369 - Mass Media and Society Credits: (4)
- COM 371 - Event Planning and Management Credits: (4)
- COM 375 - Interviewing Principles and Techniques Credits: (4)
- COM 380 - Non-Verbal Communication Credits: (4)
- COM 388 - Advertising Planning Credits: (4)
- COM 401-Communication Theory Credits: (4)
- COM 402 - Gender Communication Credits: (4)
- COM 403 - Family Communication Credits: (4)
- COM 427 - Grant Writing Credits: (4)
- COM 460 - Communication Law Credits: (4)
- COM 465 - Communication and Organizational Leadership Credits: (4)
- COM 472 - Global Public Relations Credits: (4)
- COM 473 - Crisis Communication Management Credits: (4)
- COM 481-Central Communication Agency Credits: (2)
- COM 483 - Advanced Central Communication Agency Credits: (3)
- COM 487 - Advanced Public Relations Seminar Credits: (4)

Total Credits: 75

College and Department Information
Communication Department College of Arts and Humanities

## Advertising Minor

The minor in advertising is open to students majoring in all fields. The program prepares students with effective written and visual communication, critical thinking, planning, production, distribution, and research skills related to advertising.

Required Courses

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 280 - Advertising Fundamentals Credits: (4)
- COM 300 - Media Research Credits: (5)
- COM 388 - Advertising Planning Credits: (4)

Select 4 credits from the following:

- COM 305 - Advertising Copywriting Credits: (4)
- COM 309 - Writing Broadcast Advertising Credits: (4)

Select 4 credits from the following:

- COM 481 - Central Communication Agency Credits:
(2) (Repeatable for credit)
- COM 490 - Cooperative Education Credits: (1-12) (Must be taken for 4 credits)
- COM 492 - Communication Practicum Credits: (2) (Repeatable for credit)

Total Credits: 26

College and Department Information

Communication Department
College of Arts and Humanities
College of Education and Professional Studies

## Communication Minor

The communication minor introduces students to the study of communication within a modern social and cultural context.

Students in teacher education must meet with the department chair and the certification director to determine the course of study necessary for endorsement.

Required Courses

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 207 - Introduction to Human Communication Credits: (5)

Department-approved Electives Credits: (18)

Total Credits: 28

College and Department Information

Communication Department
College of Arts and Humanities

## Non-profit Organization Management Minor (COM)

The minor in non-profit organization management is an interdisciplinary minor designed to provide an understanding of the organization, financing and management issues in non-profit organizations. It is designed to complement majors in artistic,
advocacy and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

Required Courses: Credits (13)

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- COM 312 - Introduction to Non-Profit Leadership Credits: (4)
- COM 427 - Grant Writing Credits: (4)

Select 12 credits from at least two prefixes from the following electives:

- ANTH 360 - Introduction to Museum Studies Credits: (4)
- ANTH 361 - Museum Exhibit Design Credits: (4)
- COM 208 - Introduction to Public Relations Writing Credits: (4)
- COM 270 - Introduction to Public Relations Credits: (4)
- COM 315 - Studies in Communication Credits: (1)
- COM 348 - Publication Design Credits: (4)
- COM 362 - Conflict and Communication Credits: (4)
- COM 365- Organizational Communication Credits: (4)
- COM 370 - Advanced Public Relations Writing Credits: (4)
- COM 371 - Event Planning and Management Credits: (4)
- COM 375 - Interviewing Principles and Techniques Credits: (4)
- COM 487 - Advanced Public Relations Seminar Credits: (4)
- SOC 365 - Minority Groups Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- SOC 445 - Social Inequality Credits: (5)
- SOC 459 - Organizations Credits: (5)
- SOC 460 - Community Structure and Organization Credits: (5)
- TH 350 - Theatre and Arts Management I Credits: (4)
- TH 351 - Theatre and Arts Management II Credits: (4)
- TH 360 - Stage Management Credits: (3)

Choose one from the following: Credits (5)

- ANTH 490 - Cooperative Education Credits: (1-12)
- ART 490 - Cooperative Education Credits: (1-12)
- COM 490 - Cooperative Education Credits: (1-12)
- MUS 490 - Cooperative Education Credits: (1-12)
- TH 490 - Cooperative Education Credits: (1-12)

Total Credits: 30

College and Department Information

Communication Department
College of Arts and Humanities

## Organizational Communication Minor

The minor in organizational communication is designed to complement a broad spectrum of majors leading to careers in government, education, social and community services.
Emphasis is placed on an understanding of the basic nature of communication in organizations, and on the fundamental knowledge and skills necessary for effective communication in organizations at the interpersonal small group, and public (large group) levels.

Required Courses

- COM 251 - Small Group Dynamics Credits: (4)
- OR COM 302 - Intercultural Communication Credits: (4)
- COM 345 - Business and Professional Speaking Credits: (4)
- COM 365 - Organizational Communication Credits: (4)
- COM 375 - Interviewing Principles and Techniques Credits: (4)
- COM 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)
Department-Approved Electives Credits: (4)
Total Credits: 25

College and Department Information
Communication Department
College of Arts and Humanities

## Non-profit Organization Management Certificate (COM)

[^3]Select 8 credits at least two prefixes from the following electives:

- ANTH 360 - Introduction to Museum Studies Credits: (4)
- ANTH 361 - Museum Exhibit Design Credits: (4)
- COM 208 - Introduction to Public Relations Writing Credits: (4)
- COM 270 - Introduction to Public Relations Credits: (4)
- COM 315 - Studies in Communication Credits: (1)
- COM 348 - Publication Design Credits: (4)
- COM 362 - Conflict and Communication Credits: (4)
- COM 370 - Advanced Public Relations Writing Credits: (4)
- COM 371 - Event Planning and Management Credits: (4)
- COM 487 - Advanced Public Relations Seminar Credits: (4)
- SOC 365 - Minority Groups Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- SOC 445 - Social Inequality Credits: (5)
- SOC 459 - Organizations Credits: (5)
- SOC 460 - Community Structure and Organization Credits: (5)
- TH 350 - Theatre and Arts Management I Credits: (4)
- TH 351 - Theatre and Arts Management II Credits: (4)
- TH 360 - Stage Management Credits: (3)

Total Credits: 21
College and Department Information

Communication Department
College of Arts and Humanities

## Professional Writing Certificate (COM)

Professional Writing Certificate

The professional writing certificate allows students to develop their writing skills for professional and business environments. It is delivered entirely online to serve professionals already working in careers as well as students planning to begin professional or business careers. Students will learn the rhetorical requirements for specific forms of written communication, including letters, memos, reports, proposals, promotional materials, and press releases. They will also learn to edit their own writing for clarity, correctness, and style.

## Required Courses

- ENG 301 - Rhetoric for Professional Writers Credits: (5)
- ENG 310 - Technical Writing Credits: (4)
- COM 347 - Copy Editing Credits: (4)
- COM 370 - Advanced Public Relations Writing Credits: (4)

Total Credits: 17

College and Department Information

Communication Department
College of Arts and Humanities

## Radio Broadcasting Certificate

A specialized certificate program designed to be completed within 1-academic school year. The program provides an overview of the practice, technology, production and promotion/sales of Radio Broadcasting. Topics include On-air presentation skills, radio board operation, audio production, radio news, radio production, call screening, radio promotions, programming, voice over, and interviewing.

Students trained via the nationwide music scheduling software certification Music Master, Inc.. Students learn the trade while being trained on broadcast industry standard equipment, approaching tasks in a laboratory environment, going through industry standard certification, and having industry guest lecturers and/or speakers.

## Admission Requirements

Eligibility
The total number of applicants admitted may be limited. The following requirements must be met:

- A minimum overall college GPA of 2.5
- Completed the following; COM 201 (Mass Media), COM 202 Law and Ethics of the First Amendment and FILM 215, Production Technology Skills, Audio Tech, or equivalent
- Work experience may substitute for the above academic prerequisites and is subject to evaluation by the advisor


## Graduation Requirements

Obtain a passing grade of C - or higher in each course within the Certificate Program.

## Program Requirements

Students are required to apply for admission into the program.
Students are also required to understand, speak and write conversational English. Students must have a basic understanding of computers.

Prerequisites
Work experience may substitute for academic prerequisites and is subject to evaluation by the advisor.

- COM 201 - Introduction to Mass Communication Credits: (5)
- COM 202 - The First Amendment: Rights and Responsibilities Credits: (5)
- FILM 215 - Production Technology Skills Credits: (1) (Must take subtitle Audio Tech for 1 credit)


## Required Courses

- COM 204 - Radio Studies Credits: (2)
- COM 205 - Radio Production Skills Credits: (4)
- COM 304 - Radio Programming Application Credits:
(5) (Must take for 15 credits)
- COM 404 - Radio Ratings and Revenue Credits: (2)

Total Credits: 34

## Computer Science Department

## College of the Sciences

Ellensburg
Hebeler Hall, room 219
Mail Stop 7520
509-963-1495
www.cwu.edu/computer-science
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Christos Graikos, PhD

## Professors

Razvan Andonie, PhD, computational intelligence, machine learning, parallel/distributed computing, big data analytics, data mining
Christos Graikos, PhD, image/video processing, analysis, compression and transmission
Boris Kovalerchuk, PhD, artificial intelligence, visual big data analytics, machine learning, data mining, computer vision, simulation, computer architecture, soft computing

## Associate Professors

Donald Davendra, PhD, optimization, evolutionary algorithms, manufacturing systems, chaos control, data analytics

## Assistant Professors

Adriano Cavalcanti, PhD, biomedical computing, mobile technology, robotics/nanorobotics, computer graphics Arne Leitert, PhD , algorithmic graph theory, data structures and algorithms, large scale network analysis
Szilárd VAJDA, PhD, machine learning, medical image processing, document analysis, data analytics

## Staff

Chris Stone, secretary senior
Zachary Geesaman, systems analyst
Megan McConnell, advisor, recruiter

## Department Information

The Department of Computer Science (CS) offers a degree program leading to the Bachelor of science in computer science. The department also jointly offers a program with the industrial engineering technology (IET) department in the College of Education and Professional Studies in computer engineering technology. Information related to the computer engineering technology program can be found in the IET section of the catalog.

The field of computer science can trace its beginnings and much of its foundation to both mathematics and engineering. Because of this, studies in computer science range from theory through experimental techniques to engineering methodology. The purpose of the computer science curriculum is to expose students to aspects of each of these disciplines and foster an appreciation and understanding of them. To accomplish this, students are exposed to the broad theoretical basis of computer science as well as a strong laboratory component. The laboratory experience is more than simple programming. Rather, it is through the laboratories that students are introduced to both the experimental and the design aspects of computer science.

Using this philosophy as a base, the CS department has designed a curricular model that seeks to increase relevance to the real world. In particular, the senior project, a capstone course seriesCS 480 and 481-adopts a theme that expands upon the experimental and design approach of typical computer science curricula. This capstone series addresses the creativity and productivity elements required for business and industry applications today. Students become engaged in projects that investigate each stage of transforming a creative idea into a productivity-enhancing system in a realistic context.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/computer-science or by contacting the department directly.

## Computer Science Major, BS

In order to expose computer science majors to a broad theoretical base while emphasizing the laboratory experience, students will complete the CS core courses. To add depth and flexibility to their academic programs, with major advisor, students will work out a focus area and choose the elective courses approved by the department. A specific focus may be developed in many areas of computer science; examples include: software engineering, intelligent systems, computational science, computer graphics, visualization and computer vision, human-computer interaction, big data analytics, and cybersecurity.

## Standards for Admission and Continuation

Admission to the computer science major or minor is not selective, however, progress in the major/minor is dependent upon earning certain grades in prerequisite courses. In order to continue in any CS course above 301 with the exception of 311 , a student must receive a B- grade or higher in each of the CS courses and a C grade or higher in each of the General

Education Academic Writing courses and required Math courses. Applications will be accepted through the last day of classes (i.e., the week before finals) of the fall, winter, and spring quarters for admission the following quarter.

The computer science department believes that advising is one of the keys to success in an undergraduate program. To that end, majors and minors are required to meet with a computer science advisor every term in order to register. Pre-admission students are also encouraged to meet with their designated computer science advisor each term. Advisors and advising times are listed with the CS office.

CS Pre-admission Requirements Credits: 17
The minimum grade for each CS course listed below is B- and C for all others. Students must also complete General Education Academic Writing I and II with a minimum grade of C in each.

- CS 110 - Programming Fundamentals I Credits: (4)
- CS 111 - Programming Fundamentals II Credits: (4)
- CS 301 - Data Structures Credits: (4)
- MATH 172 - Calculus I Credits: (5)

Required Courses Credits: 69
The minimum grade for each CS course listed below is B- and C for all others.

- CS 112 - Foundations of Computer Science Credits: (4)
- CS 302 - Advanced Data Structures and File Processing Credits: (4)
- CS 311 - Computer Architecture I Credits: (4)
- CS 312 - Computer Architecture II Credits: (4)
- CS 325-Technical Writing in Computer Science Credits: (3)
- CS 361 - Principles of Language Design I Credits: (4)
- CS 362 - Principles of Language Design II Credits:
(4)
- CS 380 - Introduction to Software Engineering Credits: (4)
- CS 392 - Lab Experience in Teaching Computer Science Credits: (1)
- CS 420 - Database Management Systems Credits: (4)
- CS 427 - Algorithm Analysis Credits: (4)
- CS 446 - User Interface Design and Development Credits: (4)
- CS 470 - Operating Systems Credits: (4)
- CS 480 - Advanced Software Engineering Credits:
(4)
- CS 481 - Software Engineering Project Credits: (4)
- CS 489 - Senior Colloquium Credits: (1)
- CS 492 - Laboratory Experience in Teaching Computer Science Credits: (1-2)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 330 - Discrete Mathematics Credits: (5)

Department-Approved Electives Credits: 20

Electives must be chosen with the guidance of a computer science advisor and must form a coherent focus area. The minimum grade for each CS course is B - and C for all others.

- Additional CS courses (excluding CS 490, CS 495, and CS 496) Credits: (12)
- Additional department-approved electives Credits: (8)

Total Credits: 106

College and Department Information

Computer Science Department
College of the Sciences

## Applied Computer Science Minor

This minor is designed for students who wish to integrate a computer science component into their curriculum. This minor is appropriate for any student who wishes to include an enhanced technical computer science background as part of their overall curriculum.

Required Courses Credits: 22

- BUS 221 - Introductory Business Statistics Credits: (5)
- OR MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- CS 110 - Programming Fundamentals I Credits: (4)
- CS 111 - Programming Fundamentals II Credits: (4)
- CS 301 - Data Structures Credits: (4)
- MATH 130 - Finite Mathematics Credits: (5)

Department-Approved Electives - Credits: 12-14
At least one course will be in computer science. The other electives will be computer related and may be selected from the student's major with the approval of an advisor.

Total Credits: 34-36

College and Department Information

Computer Science Department
College of the Sciences

## Computer Science Minor

This minor is designed for students who wish to investigate and basic core of the computer science discipline. This minor is appropriate for any student, including those in teacher education, seeking to enhance their technical computer science background.

Required Courses

- CS 110 - Programming Fundamentals I Credits: (4)
- CS 111 - Programming Fundamentals II Credits: (4)
- CS 301 - Data Structures Credits: (4)
- CS 311 - Computer Architecture I Credits: (4)
- MATH 130 - Finite Mathematics Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 260 - Sets and Logic Credits: (5)

Total Credits: 31

College and Department Information

Computer Science Department
College of the Sciences

## Craft Brewing Program

Program Director<br>Steve Wagner, PhD<br>Program Manager<br>Katie Olson<br>\section*{Professors}<br>Roger Beardsley, PE<br>Jim Johnson, PhD<br>Wayne Quirk, PhD<br>Steve Wagner, PhD

## Associate Professors

Warren Plugge, PhD

## Lecturers

Eric Foss, MS
Cole Provence, MS
The Craft Brewing Program provides students with an in-depth understanding of the brewing industry. The BS in Craft Brewing is built upon a strong foundation in science and is focused on providing students with content, experience, and skills in brewing science, analytical laboratory techniques, quality assurance, and management. Additionally, courses incorporate hands-on and inquiry-based learning opportunities through case studies, pilot brewing, field trips, industry speakers, and research activities. The program prepares graduates for a career in the brewing production, quality assurance, brewery management, beer merchandising, distribution, brewing technology, packaging, safety, sanitation, sensory evaluation, and entrepreneurship. This is an interdisciplinary program involving departments and faculty across the university that is administered in the College of the Sciences.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/craft-brewing/ or by contacting the department directly.

## Craft Brewing, BS

The Craft Brewing Program provides students with an in-depth understanding of the brewing industry. The BS in Craft Brewing is built upon a strong foundation in science and is focused on providing students with content, experience, and skills in brewing science, analytical laboratory techniques, quality assurance, and management. Additionally, courses incorporate hands-on and inquiry-based learning opportunities through case studies, pilot brewing, field trips, industry speakers, and research activities. The program prepares graduates for a career in the brewing production, quality assurance, brewery management, beer merchandising, distribution, brewing technology, packaging, safety, sanitation, sensory evaluation, and entrepreneurship. This is an interdisciplinary program involving departments and faculty across the university that is administered in the College of the Sciences.

## Pre-Admission Requirements

Students wishing to attain full admission to the BS in Craft Brewing must meet the following requirements:

- Successful completion of CHEM 111 Introduction to Chemistry, CHEM 111LAB Chemistry Laboratory, CHEM 112 Introduction to Organic Chemistry, CHEM 112LAB Introduction to Organic Chemistry Laboratory, CHEM 113 Introduction to Biochemistry, CHEM 113LAB Introduction to Biochemistry Laboratory, MATH 153 or its equivalent, ECON 201 Principles of Economics Micro, PHYS 111 Introductory Physics, PHYS 112 General Physics, with a C (2.0) or higher in each course before being admitted to the major.
- Overall minimum 2.5 GPA will be required for admission.
- Students must fill out an application that includes an essay of motivation and goals.
- Upon admittance to the program students must agree to sign a written statement regarding professional conduct and responsibility.
- Student must be at least 21 years old before enrolling in courses that may involve tasting beer (CRBW 317 Brewing Processes and Biochemistry (5), CRBW 350 Sensory Analysis for Brewing (5), CRBW 495 Brewing Research Methods (5), CRBW 496 Brewing Special Topics (3), CRBW 498 Brewing Research (5), CRBW 499 Brewing Seminar (2).
Students are highly encouraged to also obtain a minor or degree in Biology, Chemistry, Administrative Management, Industrial Technology, Safety and Health Management and complete at least five credits of CRBW 490, Cooperative Education.


## Special Requirements

Students will be expected to spend significant time outside the classroom working on assignments and projects. Some sessions may meet on Saturdays.

## Additional Information

The requirement for CHEM 111, 111LAB, Introduction to Chemistry and Laboratory, may be met by satisfactorily completing CHEM 181, 181LAB, 182, 182LAB, and 183, 183LAB General Chemistry and Laboratory. The requirement for CHEM 112, 112LAB, Introduction to Organic Chemistry
and Laboratory, may be met by satisfactorily completing CHEM 361, 361LAB, 362, Organic Chemistry and Laboratory. The requirement for CHEM 113, 113LAB, Introduction to Biochemistry, may be met by satisfactorily completing CHEM 431, 431LAB and 432, Biochemistry and Laboratory.

Required Courses

Basic and Breadth Requirement Courses Credits: 10

- ECON 201 - Principles of Economics Micro Credits: (5)

Choose one of the following mathematics courses:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)

Professional Core Requirement Credits: 31

- ADMG 201 - Introduction to Business Credits: (3)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1)
- SHM 325 - Manufacturing Safety and Health Credits: (3)

Select 10 credits from the following sequences:

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)

Required Advanced Craft Brewing Core Courses Credits: 31

- CRBW 312 - Brewing Microbiology Credits: (4)
- CRBW 317- Principles and Biochemistry of Brewing Credits: (4)
- CRBW 450 - Sensory Analysis for Brewing Credits: (5)
- CRBW 470 - Current Topics in Brewing Credits: (16)
- CRBW 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)
- OR CRBW 495 - Brewing Research Methods Credits: (5) (Must be taken for 5 credits)
- CRBW 499 - Seminar Credits: (1-5) (Must be taken for 2 credits)
- CRBW 360 - Brewing Process Technology Credits: (3)
- RMT 320 - Topics in Strategy for the Craft Brewing Industry Credits: (5)

Total Credits: 72

College and Department Information

Craft Brewing Program
College of the Sciences

## Craft Beer Trade Certificate

The Craft Brewing Certificate is an interdisciplinary certificate program designed to be completed in one academic year sequence. The certificate program provides an overview of the science, technology, and sales/merchandising aspects of the craft beer brewing industry. Topics include principles of malting and brewing, brewing process technology, brewing microbiology, and topics strategy for the craft brewing industry. Students learn about the trade using a variety of approaches including lab work, hands on experiences, lectures, field trips, and industry speakers.

Pre-admission Requirements Credits: 10

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)

And one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5) OR
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1) OR
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)


## Admission Requirements

Students must be 21 years of age or older to enroll in the program and must apply for acceptance into the program through an application that is separate from the university. The application for the program can be found at www.cwu.edu/sciences/craft-brewing.

## Special Requirements

Students will be expected to spend significant time outside the classroom working on assignments and projects. Some sessions may meet on Saturdays. In order to receive the certificate, students must earn a grade of C or above in each of the four courses. If students are conditionally admitted without meeting
the pre-requisites, they must fulfill the pre-requisites before being awarded the certificate.

Required Courses Credits: 16

- CRBW 312 - Brewing Microbiology Credits: (4)
- CRBW 317- Principles and Biochemistry of Brewing Credits: (4)
- RMT 320 - Topics in Strategy for the Craft Brewing Industry Credits: (5)
- CRBW 360 - Brewing Process Technology Credits: (3)

Total Credits: 26

College and Department Information

Craft Brewing Program
College of the Sciences

## Curriculum, Supervision, and Educational Leadership Department

College of Education and Professional Studies<br>School of Education<br>Ellensburg<br>Black Hall, room 214-12<br>Mail Stop 7410<br>509-963-1448<br>www.cwu.edu/csel/

See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Ian Loverro, PhD

## Graduate Programs Coordinator

Denise Shaw, PhD, educational leadership
Don Wattam, EdD, master teacher

## Professors

Kim M. Jones, PhD, curriculum and instruction
Naomi Petersen, EdD, philosophy, assessment, STEM, informal settings
Henry Williams, EdD, school administration

## Associate Professors

Kelly Benson, EdD, leadership, law
Jan Byers-Kirsch, EdD, curriculum and instruction, literacy and supervision
Eric Hougan, PhD., educational leadership and policy studies Ian Loverro, PhD , educational technology and communication Lee Plourde, PhD curriculum and instruction, supervision, administration
Molly Ross, EdD, field supervisor
Don Wattam, EdD, school administration

## Assistant Professors

Susana Y. Flores, PhD, multicultural education
Keith Reyes, EdD, multicultural education
Denise Shaw, PhD, curriculum and instruction, alternative
pathways to teaching manager

## Lecturers

Frank Foster, MEd, field supervisor
Judy Longstreth, MEd, field supervisor
Brita Williams, MiT, field supervisor

## Staff

Debbie Strand, administrative assistant

## Department Information

In order to be certified in the state of Washington, a student must complete the courses required in an endorsement area as well as the Professional Education Program. The Curriculum, Supervision, and Educational Leadership Department provides the courses and experiences necessary to complete the Professional Education Program. For information directly regarding the Alternative Pathways to Teaching Program please visit www.cwu.edu/teacher-certification/about.

## Department Standards

All students completing an educational endorsement must maintain a 3.0 GPA or higher for the last 45 graded credits. Failure to maintain this level of achievement may result in suspension or expulsion from the Teacher Certification Program. Students must also earn a minimum grade of C in all required Professional Education Program courses.

## Admission Requirements

Students may not enroll in Professional Education Program courses other than EFC 210, EFC 310, and PSY 314 until they have been fully admitted into the School of Education Teacher Certification Program. Please see the admission requirements for the School of Education Teacher Certification Program at the Teacher Certification website, www.cwu.edu/~cert.

## Exit Requirements

Students admitted into the School of Education are required to present a complete electronic portfolio demonstrating their content, pedagogical, and professional knowledge, skills, and dispositions as a partial fulfillment of their graduation requirements. Please see the exit requirements for the Teacher Certification Program.

## Pre-admission Observation Experience

In special circumstances, this experience may be completed concurrent with the first three weeks of EFC 210. However, because it will generally not be possible for students to find placements and complete their observation within this time, students are strongly encouraged to complete their Preadmission Observation Experience prior to enrolling in EFC 210.

## Student Teaching

Students must complete a minimum of 16 quarter credits of student teaching on an all-day basis for one quarter. To qualify for certification to teach in more than one specialization, students must meet all requirements listed in the catalog for each specialization. All prerequisites in the course description for
student teaching must be completed.

1. One quarter in residence at CWU is required before a student may be assigned to student teaching, unless an exception is approved by the chair of the Department of Educational Foundations and Curriculum.
2. Students must be endorsed for student teaching by their major and minor departments. The endorsement requires completion of 75 percent of the major and minor areas prior to student teaching. See major and minor departments for advising.
3. Most student teaching assignments will be made at centers outside Kittitas County.
4. While student requests for choice of student teaching centers and grade levels will be considered, final responsibility for student teaching placement rests with the director of field experiences.
5. Student teachers wishing to enroll in additional coursework during their student teaching experience must obtain the approval of the director of field experiences.
6. A minimum GPA of 3.0 for the last 45 quarter credits is required prior to applying for student teaching.
7. Fingerprint clearance from both the Washington State Patrol and the FBI must be on file in the office of the dean of the College of Education and Professional Studies (CEPS) prior to applying for student teaching. Clearance must be valid for the entire period in which students will be in the classroom.
8. Applications for certification must be on file in the office of the dean of CEPS one quarter prior to student teaching.
9. At the time of application submission, students must provide proof of purchase of $\$ 1 \mathrm{M}$ of liability insurance for student teaching, valid for the quarter in which student teaching will occur.
10. At the time of application submission, students must provide West-E results or proof of having registered for a West-E test date that will occur prior to the first day of student teaching.

## Professional Education Program

The purpose of the Professional Education Program is to prepare prospective teachers to become facilitators of learning within the school and community. The Professional Education Program curriculum provides opportunities to acquire the pedagogical knowledge and skills that allow students to demonstrate a positive impact on $\mathrm{P}-12$ student learning. To this end, the program offers information about and experience in integrating research and pedagogy constructs for a spectrum of diverse learning situations.

See important information above under Pre-admission Observation Experience and Student Teaching.

Students should enroll for EFC 330 prior to their junior year.
Students should check the university catalog for course descriptions and pre-requisite information. Some courses must be taken in sequence. Students should consult their advisor for assistance in developing an academic plan.

## Required Courses

EDBL 401 - Principles and Practices for Educating
Linguistically Diverse Students 3
OR
EDBL 430 - Sheltering Instruction for Linguistically Diverse
Students (3)
EDSE 302 - Introduction to Students with Exceptionalities 3
EFC 210 - Seminar 1
EFC 310 - Orientation to Teaching 3
EFC 315 - Educational Assessment 3
EFC 320 - Multicultural Education 3
EFC 330 - Field Experience 2
EFC 340 - Methods of Instruction 3
EFC 350 - Classroom Management 3
EFC 416 - Educational Technology 3
EFC 440 - Education Law 3
EFC 480 - Student Teaching 16
PSY 314 - Human Development and the Learner 4
Total Credits: 50

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/csel/ or by contacting the department directly.

## Instructional Foundations, BA

This degree program is designed to meet the needs of students who wish to have a background in instructional pedagogy, but who do not wish to complete the requirements for teaching certification. Students who complete the program will be prepared to work in settings that require expertise in the foundations of education, such as training programs in business and industry, service programs at educational institutions, private child care facilities, etc.

The student will select a focus area, which must be approved by the department. The focus area will be a cohesive set of courses, which will be designed to provide the student with the knowledge and skills required to take a leadership role in an education-related organization. The practicum will be done in the focus area after all other course work is completed.

Students must achieve a grade of C or higher in all courses in the major and must have a cumulative grade point average of 3.0 or higher in the major in order to graduate.

Admission to the program requires the following:

1. A passing score on each section of the Washington Educator Skills Test - Basic (WEST-B). See www.west.nesinc.com to register and for additional information.
2. A cumulative GPA of 3.0 or higher.
3. Completion of each of the following with a grade of C
or higher.
a. ENG 101
b. ENG 102
c. MATH 101, 153, 154, 164, 170, 172, or FIN 174.
4. Proof of purchase of the College LiveText Edu Solutions software program.

Required Courses

- EDCS 492 - Practicum Credits: (1-15) (Must be taken for 15 credits)
- EFC 210 - Seminar Credits: (1)
- EFC 310 - Orientation to Teaching Credits: (3)
- EFC 315 - Educational Assessment Credits: (3)
- EFC 320 - Multicultural Education Credits: (3)
- EFC 330 - Field Experience Credits: (2)
- EFC 340 - Methods of Instruction Credits: (3)
- EFC 416 - Educational Technology Credits: (3)
- ENG 310-Technical Writing Credits: (4)
- PSY 314 - Human Development and the Learner Credits: (4)

Department-Approved Focus Area Electives Credits: 19

Total Credits: 60

College and Department Information
Curriculum, Supervision, and Educational Leadership Department
College of Education and Professional Studies

## Professional Education Program

The purpose of the Professional Education Program is to prepare prospective teachers to become facilitators of learning within the school and community. The Professional Education Program curriculum provides opportunities to acquire the pedagogical knowledge and skills that allow students to demonstrate a positive impact on P-12 student learning. To this end, the program offers information about and experience in integrating research and "best practice" based pedagogical constructs, for a spectrum of diverse learning situations.

Students should enroll for EFC 330 prior to their junior year. Student teaching is completed at one of the approved offcampus locations.

Check the University catalog for course descriptions and prerequisites information. Some courses must be taken in sequence. Consult your education advisor for assistance in developing an academic plan.

## Required Courses

- EDBL 401 - Principles and Practices for Educating Linguistically Diverse Students Credits: (3)
- OR EDBL 430 - Sheltering Instruction for Linguistically Diverse Students Credits: (3)
- EDSE 302 - Introduction to Students with Exceptionalities Credits: (3)
- EFC 210 - Seminar Credits: (1)
- EFC 310 - Orientation to Teaching Credits: (3)
- EFC 315 - Educational Assessment Credits: (3)
- EFC 320 - Multicultural Education Credits: (3)
- EFC 330 - Field Experience Credits: (2)
- EFC 340 - Methods of Instruction Credits: (3)
- EFC 350 - Classroom Management Credits: (3)
- EFC 416 - Educational Technology Credits: (3)
- EFC 440 - Education Law Credits: (3)
- EFC 480 - Student Teaching Credits: (16)
- PSY 314 - Human Development and the Learner Credits: (4)

Total Credits: 50

College and Department Information
Curriculum, Supervision, and Educational Leadership Department
College of Education and Professional Studies

## Accessibility Studies Minor

The Accessibility Studies Minor provides an interdisciplinary opportunity to learn about the challenges facing people with disabilities and limitations, estimated to be nearly a fifth of the population. The Accessibility Studies Minor documents the graduate's demonstration of competence in recognizing where, when, and how to accommodate such needs. Competence includes facilitating accessible transitions and employment for people with disabilities and limitations, approached from different perspectives of employers, social service agencies, commercial enterprises, and the people requiring access themselves. This competence is attractive to employers who must all comply with legislation, such as the Americans with Disabilities Act, intended to protect entitlement to activities of independent living in all environments- work, home, school, shopping, medical, leisure, and virtual.

Accessibility Studies add practical depth to all pre-professional degrees, such as Business Administration; Human Resource Management; Supply Chain Management; Marketing; Public Policy; Non-Profit Organization Management; Public Health; Social Services; Safety and Health Management; Recreation and Tourism; Family and Child Life; Web Design and Management; Physical Rehabilitation Therapy; Paramedicine; Emergency Medical Technician; Communication; Graphic Design; Professional and Creative Writing; American Sign Language; Theatre Art Design and Production; Museum Studies; Anthropology; Interdisciplinary Studies in Social Sciences; Applied Computer Science; Law and Justice; Psychology; Library Information Science; Instructional Foundations.

## Admission Requirements

Admission to the program requires an application approved by the Accessibility Studies Program. There are no prerequisites for the introductory course, ASP 305 Accessibility and User Experience.

## Graduation Requirements

Successful completion of required courses with a minimum of C in all courses.

## Program Requirements

The minor degree in Accessibility Studies requires the four core courses of 15 credits plus an additional 5 credits of programapproved electives in application and issues courses.

The minor requires a capstone course in which the student investigates a real-world context and designs a practical solution to an accessibility problem for that context. The placement must be approved as part of the capstone project approval.
Placement is flexible, e.g. via an ASP internship or practicum or independently arranged without additional credit. Completion of the capstone also includes public presentation, which although flexible must also be arranged through and approved by ASP faculty.

Required Courses Credits: 15

- ASP 305 - Accessibility and User Experience Credits: (3)
- ASP 325 - Universal Design Credits: (4)
- ASP 435 - Accessible Information Design Credits: (5)
- ASP 485 - Accessibility Studies Capstone Credits: (3)

Department-Approved Electives Credits: 5

- ASP 365 - Assistive Technology: Tactile Graphics Credits: (3)
- ASP 490 - Accessibility Studies Internship Credits: (1-12)
- ASP 492 - Advanced Practicum in Accessibility Studies Credits: (1-15)
- ASP 498 - Special Topics in Accessibility Credits: (16)

OR Program-approved electives. The list of approved electives is extensive. Please consult an Accessibility Studies Program advisor regarding the eligibility of any course that would provide an opportunity to apply the knowledge and skills of accessibility competence. Up to five (5) credits may be courses required for a concurrent major.

Total Credits: 20

## Accessibility Studies Certificate

The Accessibility Studies Certificate provides an interdisciplinary opportunity to learn about the challenges facing people with disabilities and limitations, estimated to be nearly a fifth of the population. The Accessibility Studies Certificate documents the graduate's demonstration of competence in recognizing where, when, and how to accommodate such needs. Competence includes facilitating accessible transitions and employment for people with disabilities and limitations, approached from the different perspectives of employers, social service agencies, commercial enterprises, and the people requiring access themselves. This competence is attractive to employers who must all comply with legislation, such as the Americans with Disabilities Act, intended to protect entitlement to activities of independent living in all environments- work, home, school, shopping, medical, leisure, and virtual. The

Accessibility Studies certificate is a professional development opportunity of value to most fields.

Additional courses focused on application and issues of accessibility may be taken, such as:

## ASP 465 Tactile Graphics

ASP 490 Accessibility Studies Internship
ASP 492 Accessibility Studies Practicum
ASP 498 Topics in Accessibility Studies

## Admission Requirements

Admission to the program requires an application approved by the Accessibility Studies Program. There are no prerequisites for the introductory course, ASP 305 Accessibility and User Experience.

## Graduation Requirements

Successful completion of required courses with a minimum of C in all courses.

## Program Requirements

The certificate in Accessibility Studies requires the four core courses of 15 credits.

Required Courses

- ASP 305 - Accessibility and User Experience Credits: (3)
- ASP 325 - Universal Design Credits: (4)
- ASP 435 - Accessible Information Design Credits: (5)
- ASP 485 - Accessibility Studies Capstone Credits: (3)

Total Credits: 15

## Economics Department

College of Business
Ellensburg
Shaw-Smyser Hall, room 413
Mail Stop 7486
509-963-2664
Fax: 509-963-1992
www.cwu.edu/economics
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

## Chair

Toni Sipic, PhD

## Professors

Robert J. Carbaugh, PhD
Koushik Ghosh, PhD
David W. Hedrick, PhD
Peter J. Saunders, PhD
Charles S. Wassell Jr., PhD

## Associate Professor

Toni Sipic, PhD

## Staff

Shirley Hood, secretary senior

## Department Information

Positions of responsibility in today's world are usually held by individuals who have the capacity to analyze complex problems and make intelligent decisions. Learning economics will help students think logically and improve their ability to use economic concepts to analyze "real world" problems and opportunities. In addition to preparation for business and government agency employment, an economics major is excellent preparation for law schools, master's of business administration programs, and graduate programs in economics, agricultural economics, and natural resource management. The economics department offers a Bachelor of Science degree in economics with specializations in managerial economics, general economics, and economic and business forecasting. Economics minors are offered to complement accounting, business administration, and other majors.

The BS economics major is comprised of the following components:

- Pre-admission courses providing necessary theoretical and quantitative skills to pursue studies in economics
- Core courses in both micro and macro-economic theory
- A choice of supporting courses for each of the three economics major specializations
The following objectives apply to all individuals pursuing a BS in economics:
- Students completing an economics degree will possess the tools which enable them to analyze and understand macro and micro economic problems and policies.
- Students will possess qualifications and knowledge which will help them to find employment in fields related to economics.
- Students will acquire and be able to use basic tools to enable them to carry out quantitatively oriented tasks in their employment or their field of graduate studies.
- Students completing the program should possess the communication and economic skills desirable in their future employment or graduate studies.


## Admission Requirements

Admission to an Economics major requires admission to the University.

The following requirements must be met for entry into an Economics major in the College of Business:

- Completion of 30 credits (If a student is a transfer student, credits must be transferable)
- Must be in good academic standing
- At least a 2.25 collegiate GPA
- Completion of ENG 101 and ENG 102 with a C- or higher, or equivalent
Students seeking entry to the College without these requirements may be granted pre-major standing.

International students whose native language is not English must meet one of the following English proficiency requirements:

A score of 71 or above on the Internet-based TOEFL or 525 or above on the paper-based TOEFL ( 195 for computer based, 71 for internet based), OR

A score of 6.0 or above on the International English Language Testing System (IELTS) exam, OR

A 3.0 (B grade) or above in each two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive.

## Previous or Transfer Coursework Policy

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made, but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.

Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Students who intend to pursue the CPA may instead decide to use the NABSA (National Association of State Boards of Accountancy) international evaluation services since it is a requirement of the CPA. Credits for current students participating in a CWU study abroad program will be evaluated by the Office of the Registrar.

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the foundation course requirements for any BS degree in the college. Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Academic Jeopardy Policy

The College of Business is committed to the success of its students. If a student that has been admitted to the College of Business is deemed to be in academic jeopardy, the College of Business may place restrictions on the student. A student is considered in academic jeopardy for the following reasons:

- On academic warning or probation
- Frequently withdraws from class
- Repeating coursework to be successful
- Has less that a 2.5 (2.499 and below) in any of the required GPAs for graduation.
- CWU GPA
- Collegiate GPA (CWU and all transfer coursework combined)
- Major GPA
- Upper-division coursework in the major GPA
- Accounting majors: upper-division

Accounting coursework GPA

The College of Business may do the following in response to an Academic Jeopardy situation:

- Limit College of Business coursework in future quarters
- Require academic advising with both faculty and/or professional advisors
- Require academic success plans
- Double majors or double specialization students may be limited to one major plan in the College of Business
If a student is unable to improve academically while receiving intensive advising and support or does not actively participate in required advising, the student may be subjected to the College of Business Separation Policy.


## Separation Policy

If a student that has been admitted to the College of Business is placed on academic warning, probation, suspension, has repeat academic course withdrawals, or academic performance below the necessary grade point averages required to graduate, then the student's admission into the College of Business may be rescinded. Students may also be rescinded for violations of the College of Business Statement of Conduct and Code of Honor, or for engaging in Prohibited Student Conduct as defined by Washington Administrative Code (see WAC 106-125-020). Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented at least 30 days prior to the start of the quarter in which readmission is desired. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

Students majoring in programs outside CB who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in courses. All students must have taken prerequisites for courses prior to enrollment.

## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upper-division (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Admission Information

A cumulative grade point average of 2.5 in the economics foundation requirements must be achieved with a minimum grade of C- (1.70) in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.0 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions. Applicants must have also completed ENG 101 and 102.

Students who have met all the above requirements will be admitted unless the number of eligible applicants exceeds available spaces. In that case, acceptance will be competitive,
based on a selection index. Students who have not met all of the above requirements may be admitted provisionally by permission of the college dean or designee.

## Graduation Requirements for all Department Specializations

A cumulative grade point average of 2.25 in the above courses must be achieved with a minimum grade of C - in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.25 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

## Graduation Requirements for Economics I and II Minors

A cumulative grade point average of 2.25 in the above courses must be achieved with a minimum grade of C - in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.25 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

## Repeat Policy

Business administration courses may be repeated only once.

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/economics or by contacting the department directly.

## Economics BS, Economic and Business Forecasting Specialization

The Economic and Business Forecasting curriculum provides background for careers in economic and business data analysis, economic forecasting, budget analysis, and business analytics, among others. Topics include researching and analyzing micro and macro-economic trends, forecasting them into the future, and analyzing the determinants of business pricing policies, in order to better inform decision makers in development of optimal business and economic policies.

## Economics Requirements and Foundation Core

The following objectives apply to all individuals pursuing a BS in economics:

- Students completing an economics degree will possess the tools which enable them to analyze and understand macro and micro economic problems and policies.
- Students will possess qualifications and knowledge which will help them to find employment in fields related to economics.
- Students will acquire and be able to use basic tools to enable them to carry out quantitatively oriented tasks in their employment or their field of graduate studies.
- Students completing the program should possess the communication and economic skills desirable in their future employment or graduate studies.


## Admission Requirements

Admission to an Economics major requires admission to the University.

The following requirements must be met for entry into an Economics major in the College of Business:

- Completion of 30 credits (If a student is a transfer student, credits must be transferable)
- Must be in good academic standing
- At least a 2.25 collegiate GPA
- Completion of ENG 101 and ENG 102 with a C- or higher, or equivalent
Students seeking entry to the College without these requirements may be granted pre-major standing.

International students whose native language is not English must meet one of the following English proficiency requirements:

A score of 71 or above on the Internet-based TOEFL or 525 or above on the paper-based TOEFL ( 195 for computer based, 71 for internet based), OR

A score of 6.0 or above on the International English Language Testing System (IELTS) exam, OR

A 3.0 (B grade) or above in each two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive.

## Previous or Transfer Coursework Policy

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.

Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Students who intend to pursue the CPA may instead decide to use the NABSA (National Association of State Boards of Accountancy) international evaluation services since it is a requirement of the CPA. Credits for current students participating in a CWU study abroad program will be evaluated by the Office of the Registrar.

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the foundation course requirements for any BS degree in the college. Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Academic Jeopardy Policy

The College of Business is committed to the success of its students. If a student that has been admitted to the College of Business is deemed to be in academic jeopardy, the College of Business may place restrictions on the student. A student is considered in academic jeopardy for the following reasons:

- On academic warning or probation
- Frequently withdraws from class
- Repeating coursework to be successful
- Has less that a 2.5 (2.499 and below) in any of the required GPAs for graduation.
- CWU GPA
- Collegiate GPA (CWU and all transfer coursework combined)
- Major GPA
- Upper-division coursework in the major GPA
- Accounting majors: upper-division Accounting coursework GPA
The College of Business may do the following in response to an Academic Jeopardy situation:
- Limit College of Business coursework in future quarters
- Require academic advising with both faculty and/or professional advisors
- Require academic success plans
- Double majors or double specialization students may be limited to one major plan in the College of Business
If a student is unable to improve academically while receiving intensive advising and support or does not actively participate in required advising, the student may be subjected to the College of Business Separation Policy.


## Separation Policy

If a student that has been admitted to the College of Business is placed on academic warning, probation, suspension, has repeat academic course withdrawals, or academic performance below the necessary grade point averages required to graduate, then the student's admission into the College of Business may be rescinded. Students may also be rescinded for violations of the College of Business Statement of Conduct and Code of Honor, or for engaging in Prohibited Student Conduct as defined by Washington Administrative Code (see WAC 106-125-020). Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented at least 30 days prior to the start of the quarter in which readmission is desired. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

Students majoring in programs outside CB who are required to
take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in courses. All students must have taken prerequisites for courses prior to enrollment.

## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upper-division (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Repeat Policy

Business administration courses may be repeated only once.
Foundation Core Requirements

- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Core Requirements Total Credits: 29
Economic and Business Forecasting Specialization
This specialization is for students who seek careers involving research in economics and business, including forecasting.

Business Courses Credits: 48

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- BUS 241 - Legal Environment of Business Credits: (5)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Required Courses Credits: 30

- ECON 325 - Introduction to Forecasting Credits: (5)
- ECON 401 - Intermediate Microeconomic Analysis Credits: (5)
- ECON 402 - Intermediate Macroeconomic Analysis Credits: (5)
- ECON 406 - Business Analytics Credits: (5)
- ECON 424 - Introduction to Econometrics Credits: (5)
- ECON 426 - Economic Research Credits: (5)

Total Credits: 107

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

## Economics Department

College of Business

## Economics BS, General Economics Specialization

## Economics Requirements and Foundation Core

The following objectives apply to all individuals pursuing a BS in economics:

- Students completing an economics degree will possess the tools which enable them to analyze and understand macro and micro economic problems and policies.
- Students will possess qualifications and knowledge which will help them to find employment in fields related to economics.
- Students will acquire and be able to use basic tools to enable them to carry out quantitatively oriented tasks in their employment or their field of graduate studies.
- Students completing the program should possess the communication and economic skills desirable in their future employment or graduate studies.


## Admission Requirements

Admission to an Economics major requires admission to the University.

The following requirements must be met for entry into an Economics major in the College of Business:

- Completion of 30 credits (If a student is a transfer student, credits must be transferable)
- Must be in good academic standing
- At least a 2.25 collegiate GPA
- Completion of ENG 101 and ENG 102 with a C- or higher, or equivalent
Students seeking entry to the College without these requirements may be granted pre-major standing.

International students whose native language is not English must meet one of the following English proficiency requirements:

A score of 71 or above on the Internet-based TOEFL or 525 or above on the paper-based TOEFL ( 195 for computer based, 71 for internet based), OR

A score of 6.0 or above on the International English Language Testing System (IELTS) exam, OR

A 3.0 (B grade) or above in each two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive.

## Previous or Transfer Coursework Policy

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.

Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Students who intend to pursue the CPA may instead decide to use the NABSA (National Association of State Boards of Accountancy) international evaluation services since it is a requirement of the CPA. Credits for current students participating in a CWU study abroad program will be evaluated by the Office of the Registrar.

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the foundation course requirements for any BS degree in the college. Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Academic Jeopardy Policy

The College of Business is committed to the success of its students. If a student that has been admitted to the College of Business is deemed to be in academic jeopardy, the College of Business may place restrictions on the student. A student is considered in academic jeopardy for the following reasons:

- On academic warning or probation
- Frequently withdraws from class
- Repeating coursework to be successful
- Has less that a 2.5 (2.499 and below) in any of the required GPAs for graduation.
- CWU GPA
- Collegiate GPA (CWU and all transfer coursework combined)
- Major GPA
- Upper-division coursework in the major GPA
- Accounting majors: upper-division Accounting coursework GPA
The College of Business may do the following in response to an Academic Jeopardy situation:
- Limit College of Business coursework in future quarters
- Require academic advising with both faculty and/or professional advisors
- Require academic success plans
- Double majors or double specialization students may be limited to one major plan in the College of Business
If a student is unable to improve academically while receiving intensive advising and support or does not actively participate in required advising, the student may be subjected to the College of Business Separation Policy.


## Separation Policy

If a student that has been admitted to the College of Business is placed on academic warning, probation, suspension, has repeat academic course withdrawals, or academic performance below the necessary grade point averages required to graduate, then the student's admission into the College of Business may be rescinded. Students may also be rescinded for violations of the College of Business Statement of Conduct and Code of Honor, or for engaging in Prohibited Student Conduct as defined by Washington Administrative Code (see WAC 106-125-020). Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented at least 30 days prior to the start of the quarter in which readmission is desired. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

Students majoring in programs outside CB who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in courses. All students must have taken prerequisites for courses prior to enrollment.

## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upper-division (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Repeat Policy

Business administration courses may be repeated only once.

## Foundation Core Requirements

- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Core Requirements Total Credits: 29
General Economics Specialization
This specialization is recommended for students desiring the traditional Economics major. Highly recommended supporting courses: MATH 172, MATH 173, and FIN 370.

There are no additional pre-admission courses required.
Required Courses Credits: 33

- BUS 301-Contemporary Approaches to Personal and Professional Development Credits: (3)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 401 - Intermediate Microeconomic Analysis Credits: (5)
- ECON 402 - Intermediate Macroeconomic Analysis Credits: (5)
- ECON 406 - Business Analytics Credits: (5)
- ECON 424 - Introduction to Econometrics Credits: (5)
- ECON 426 - Economic Research Credits: (5)
- ENG 311 - Business Writing Credits: (3)

Department-Approved Electives Credits: 30

- Any 300- to 400-level economics courses; one accounting course (5) may be selected in place of one economics course.

Total Specialization Credits: 63

Total Credits: 92

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Economics Department
College of Business

## Economics BS, Managerial Economics Specialization

## Economics Requirements and Foundation Core

The following objectives apply to all individuals pursuing a BS in economics:

- Students completing an economics degree will possess the tools which enable them to analyze and understand macro and micro economic problems and policies.
- Students will possess qualifications and knowledge which will help them to find employment in fields related to economics.
- Students will acquire and be able to use basic tools to enable them to carry out quantitatively oriented tasks in their employment or their field of graduate studies.
- Students completing the program should possess the communication and economic skills desirable in their future employment or graduate studies.


## Admission Requirements

Admission to an Economics major requires admission to the University.

The following requirements must be met for entry into an Economics major in the College of Business:

- Completion of 30 credits (If a student is a transfer student, credits must be transferable)
- Must be in good academic standing
- At least a 2.25 collegiate GPA
- Completion of ENG 101 and ENG 102 with a C- or higher, or equivalent
Students seeking entry to the College without these requirements may be granted pre-major standing.

International students whose native language is not English must meet one of the following English proficiency requirements:

A score of 71 or above on the Internet-based TOEFL or 525 or above on the paper-based TOEFL ( 195 for computer based, 71 for internet based), OR

A score of 6.0 or above on the International English Language Testing System (IELTS) exam, OR

A 3.0 (B grade) or above in each two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive.

## Previous or Transfer Coursework Policy

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.

Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Students who intend to pursue the CPA may instead decide to use the NABSA (National Association of State Boards of Accountancy) international evaluation services since it is a requirement of the CPA. Credits for current students participating in a CWU study abroad program will be evaluated by the Office of the Registrar.

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the foundation course requirements for any BS degree in the college. Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Academic Jeopardy Policy

The College of Business is committed to the success of its students. If a student that has been admitted to the College of Business is deemed to be in academic jeopardy, the College of Business may place restrictions on the student. A student is considered in academic jeopardy for the following reasons:

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- Repeating coursework to be successful
- Has less that a 2.5 (2.499 and below) in any of the required GPAs for graduation.
- CWU GPA
- Collegiate GPA (CWU and all transfer coursework combined)
- Major GPA
- Upper-division coursework in the major GPA
- Accounting majors: upper-division Accounting coursework GPA
The College of Business may do the following in response to an Academic Jeopardy situation:
- Limit College of Business coursework in future quarters
- Require academic advising with both faculty and/or professional advisors
- Require academic success plans
- Double majors or double specialization students may be limited to one major plan in the College of Business

If a student is unable to improve academically while receiving intensive advising and support or does not actively participate in required advising, the student may be subjected to the College of Business Separation Policy.

## Separation Policy

If a student that has been admitted to the College of Business is placed on academic warning, probation, suspension, has repeat academic course withdrawals, or academic performance below the necessary grade point averages required to graduate, then the student's admission into the College of Business may be rescinded. Students may also be rescinded for violations of the College of Business Statement of Conduct and Code of Honor, or for engaging in Prohibited Student Conduct as defined by Washington Administrative Code (see WAC 106-125-020). Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented at least 30 days prior to the start of the quarter in which readmission is desired. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

Students majoring in programs outside CB who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in courses. All students must have taken prerequisites for courses prior to enrollment.

## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upper-division (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Repeat Policy

Business administration courses may be repeated only once.

## Foundation Core Requirements

- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Core Requirements Total Credits: 29

## Managerial Economics Specialization

This specialization is for students with an interest in both public and private sector employment and preparation for law school. Highly recommended supporting courses: MATH 170 or MATH 172. The managerial economics specialization can be used as part of a double major. See your advisor for details.

Required Courses Credits: 48

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 352 - Managerial Economics Credits: (5)
- ECON 401 - Intermediate Microeconomic Analysis Credits: (5)
- ECON 402 - Intermediate Macroeconomic Analysis Credits: (5)
- ECON 406 - Business Analytics Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)

Department-Approved Electives Credits: 20

- 300- to 400-level economics courses (except ECON 396, ECON 490, ECON 496) Credits: (15)
- Other 300- to 400 -level accounting, business administration, and economics courses Credits: (5)

Total Specialization Credits: 68
Total Credits: 97

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Economics Department
College of Business

## Economics Minor I

This minor is designed to accompany the business administration and accounting majors. Prior approval of electives by the economic advisor is required.

Required Courses

- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)

Additional Credits - Credits: 15

- Other 300-400 level economics courses with departmental approval excluding ECON 406 and ECON 490. Credits: (15)

Total Credits: 25
Additional Graduation Requirements
A cumulative grade point average of 2.25 in the above courses must be achieved with a minimum grade of C - in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.25 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Economics Department
College of Business

## Economics Minor II

This minor is designed for all majors with the exception of business administration and accounting. Prior approval of electives by the economic advisor is required.

## Required Courses

- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)

Additional Electives - Credits: 10

- 300-400 level economics courses with departmental approval excluding ECON 406 and ECON 490. Credits: (10)

Total Credits: 20
Additional Graduation Requirements
A cumulative grade point average of 2.25 in the above courses must be achieved with a minimum grade of C - in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative

GPA of 2.25 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

College and Department Information

College of Business Admission Requirements
For information on admission requirements, please go to: College of Business.

Economics Department
College of Business

## Business Analytics Minor or Certificate

The business analytics minor and certificate provides opportunities to College of Business and actuarial science majors to develop additional skills in descriptive, predictive, and prescriptive business analytics. Required courses introduce students to relevant modelling and statistical methods, and management science techniques, teaching them how to analyze business and economic data with a goal of obtaining insights needed for informed business decision making. Elective courses allow students to apply their business analytics skills to various business disciplines including accounting, economics, marketing, supply chain management, and management information systems, by taking courses focused on field specific data and software applications.

## Admission Requirements

Admission to a College of Business major or actuarial science major.

## Graduation Requirements

Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the business analytics minor and certificate requirements.

Required Courses Credits: 10

- ECON 406 - Business Analytics Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)

Department-Approved Electives Credits: 15
(Must choose at least two disciplines)

- ACCT 305-Cost Accounting Credits: (5)
- ACCT 455 - Accounting Information Systems Credits: (5)
- ACCT 461 - Fraud Examination Credits: (5)
- ECON 325 - Introduction to Forecasting Credits: (5)
- ECON 424 - Introduction to Econometrics Credits: (5)
- ECON 426 - Economic Research Credits: (5)
- MIS 320 - Business Process Analysis and Systems Credits: (5)
- MIS 446 - Systems Analysis and Design in Business Credits: (5)
- MIS 460 - Applied Business Analytics Credits: (5)
- MKT 376 - Foundations of Digital Marketing Credits: (5)
- MKT 469 - Market Research Credits: (5)
- MKT 470 - Marketing Problems and Policy Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 425A - Enterprise Purchasing and Materials Management Systems Lab Credits: (1)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 435A - Enterprise Production Planning and Execution Systems Lab Credits: (1)

Total Credits: 25

College and Department Information

Economics Department
College of Business

## Education, Development, Teaching and Learning Department

College of Education and Professional Studies
School of Education
Ellensburg
Black Hall, room 205
Mail Stop 7406
509-963-2049
Fax: 509-963-1421
www.cwu.edu/teaching-learning/
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Interim Chair
Kate Reynolds, EdD, TESOL

## Professor

Yukari Amos, PhD, bilingual education, TESL
Carol Butterfield, PhD, literacy, TESL
Janet Finke, PhD, literacy
Craig Hughes, PhD, bilingual education, TESL
Terrance McCain, PhD, bilingual education, TESL

## Associate Professors

Tina Georgeson, EdD, early childhood and elementary education
YiShan Lea, EdD, bilingual education, TESL
Khodi Kaviani, PhD, elementary education
Keith Salyer, PhD, early childhood and elementary education
Janet Spybrook, EdD, special education
Sharryn Walker, PhD, literacy
Teresa Walker, EdD, early childhood education

## Assistant Professors

Grace Blum, PhD, early childhood education, elementary education
Wendie Lappin Castillo, EdD, special education
Dia Gary, EdD, early childhood education
Pamela M Juniel, PhD, special education

## Senior Lecturers

Melanie Kingham, MEd, elementary education, early childhood education

## Lecturers

James Hainer, MIT, elementary education
Michele Jacobson, MEd, special education
Tim Lawless, MA, special education

## Staff

Tina Clark, administrative assistant
Nancy Schnebly, secretary lead

## Department Information, Standards, and Requirements

Major and/or minor programs in the Education, Development, Teaching and Learning (EDTL) department include early childhood education, elementary education, bilingual education/teaching English as a second language, literacy and special education. Additionally, the EDTL department contributes to the middle-level teaching programs in mathematics (see mathematics in the catalog) and science teaching (see science education in the catalog).

In addition to a listed major and/or minor, students must maintain full admission status in the School of Education and successfully complete all certification requirements to qualify for the Washington State teaching certificate. The early childhood education major and minor offer options in which these requirements do not apply (see descriptions below). Students completing a special education major or minor must complete EDCS 424 if they are pursuing a secondary disciplinespecific teaching major (or EDLT 308 for those also seeking an elementary-specific teaching major) as part of the Professional Education Program. All students completing a secondary discipline-specific program must complete EDCS 424. All other education department majors or minors do not require the completion of this course. Also, at least 75 percent of the endorsable major or minor must be completed prior to EDCS 442, Student Teaching.

All students seeking a teacher certification endorsement must maintain a 3.0 GPA or higher for the last 45 graded credits. Students must also earn a minimum grade of " C " in all required major, minor, and Professional Education Program courses.

## Special Education Majors

The special education majors offered are specifically designed to prepare teachers for meeting the diverse competencies required for teaching individuals with disabilities. Students electing special education teaching must follow one of the outlined programs. EDSE 302 must be taken prior to or concurrently with EDSE 311.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/teaching-learning/ or by contacting the department directly.

# Early Childhood Education Major, BA 

(with Washington State Teacher Certification)

This major is intended to prepare students to become birth through grade 3 teaching specialists. As it is less than a 60 -credit major it requires a minor or second major. Students who elect to complete this major for a teacher certification endorsement in early childhood education are strongly advised to simultaneously complete the elementary education major (see a department advisor as to how this may be effectively accomplished). Students seeking the teacher certification endorsement in early childhood education must complete Teacher Certification and Professional Education Program requirements. Successful completion of EDEC 492 and EDEC 493 (minimum of 12 credits) is expected before student teaching. Majors and minors will complete program as a learning cohort (beginning fall or winter quarter) EDEC 492 and EDEC 493 concurrently and then either course may be repeated individually. Candidates must be fully admitted to the major prior to beginning the six-quarter cohort sequence. Students enrolling in any course with a field experience must have a current WSP and FBI fingerprint and background clearance on file with CWU. Please check with the CWU Teacher Certification Office (Black Hall, room 228; 509-963-2660) regarding clearance.
(without Washington State Teacher Certification)
A student may complete the Early Childhood Education major without gaining entry to the Teacher Certification Program or completing the Professional Education Program. Under such circumstances a teacher certification endorsement in early childhood will not be granted. This option exists for those individuals who wish to work with young children in birth-age 8 settings that do not require teacher certification. Candidates must be fully admitted to the major or minor prior to beginning the six-quarter cohort sequence. While full application to the Teacher Certification Program is not required, students enrolling in any Early Childhood Education Program class that has a field experience, must have current WSP/FBI fingerprint and background clearance. Please check with the CWU Teacher Certification Office (Black Hall, room 228; 509-963-2660) regarding clearance.

Required Courses

- EDEC 306-Professional Growth and Expectations Credits: (2)
- EDEC 307 - Equity, Culture, and Anti-bias in ECE Credits: (3)
- EDEC 312 - Childhood Learning Credits: (3)
- EDEC 313 - Materials and Manipulatives in ECE Credits: (3)
- EDEC 314 - Learning through Play Credits: (3)
- EDEC 321 - Curriculum I Credits: (3)
- EDEC 322 - Parent Involvement Credits: (3)
- EDEC 411 - Curriculum II Credits: (3)
- EDEC 412 - Responsible Childhood Assessment Credits: (3)
- OR EFC 315 - Educational Assessment Credits: (3)
- EDEC 422 - Classroom Management in an ECE Classroom Credits: (3)
- OR EFC 350 - Classroom Management Credits: (3)
- EDEC 424 - Curriculum III Credits: (3)
- EDEC 432 - Theories in Child Development Credits: (3)
- EDEC 492 - Senior Seminar Credits: (3)
- EDEC 493 - Professional Educators Field Experience Credits: (3-18)

Total Credits: 50

Professional Education Program Credits: 50
Professional Education Program
Total Credits: 100

College and Department Information
Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Elementary Education Major, BA

This major satisfies the Washington State teacher education endorsement for elementary (K-8) education (2014). There is not an option to complete this major without completing all state teacher certification requirements.

Students who complete this major will be endorsed to teach in regular, self-contained elementary classrooms.

## Admission Requirements

Students may take the first 2 quarters of courses as outlined in the program of study. To continue with the Elementary Education Major, students must be fully admitted to the CWU Teacher Certification Program and have completed prerequisites MATH 164 and MATH 226.

## Graduation Requirements

Candidates must complete all major courses with a C or better, maintain a cumulative GPA of at least 3.0, and meet all requirements of the Teacher Certification Program for Washington State Teacher Certification.

Introduction to the Teaching Profession Credits: 15

Home, school, and community are emphasized as learning environments and their role in supporting the learning process.

- ELEF 212 - Introduction to Teaching in Elementary Schools Credits: (3)
- ELEM 292 - Lab I: Introduction to the Teaching Profession Credits: (1)
- ELEM 321 - Children's Literature Credits: (3)
- OR EDLT 321 - Teaching Children's Literature Credits: (3)
- ELEM 323 - Learners and the Learning Environment Credits: (4)
- PSY 314 - Human Development and the Learner Credits: (4)

Culture and Society Credits: 14

Emphasis on the significance of culturally relevant educational partnerships with family, educators, and community.

- ELEF 322 - Culturally Responsive Teaching Credits: (3)
- ELEM 325 - Integrating the Arts Credits: (3)
- ELEM 331 - Foundations of Teaching Literacy Credits: (3)
- ELEM 353-Teaching Elementary Social Studies Credits: (4)
- OR EDEL 420 - Social Sciences in the Elementary School Credits: (4)
- ELEM 392 - Lab II: Culture and Society Credits: (1)

Instructional Design Credits: 16

Foundational learning theory is applied to instructional design, delivery, and assessment highlighting evidence-based engagement practices in content areas.

- ELEF 324 - Educational Technology for Elementary Classrooms Credits: (2)
- ELEF 332 - Instructional Design and Assessment Credits: (5)
- ELEF 492 - Practicum I: Instructional Design Credits: (1)
- ELEM 341 - Reading Assessment and Instruction Credits: (4)
- AND ELEM 351 - Writing Assessment and Instruction Credits: (4) OR
- EDLT 308 - Literacy I Credits: (3)
- AND EDLT 409 - Literacy II Credits: (5)

Differentiation Credits: 15

Instructional design and assessment are modified to differentiate learning concepts and approaches to meet individual interests, needs, and abilities.

- ELEF 472 - Classroom Management for Elementary Teachers Credits: (3)
- ELEF 493 - Practicum II: Differentiation Credits: (2)
- ELEM 333 - Inclusive Teaching Credits: (3)
- PESH 410 - Health and Physical Education for Elementary Classroom Teachers Credits: (4)
- ELEM 443 - Teaching in Linguistically Diverse Classrooms Credits: (3)
- OR EDBL 401 - Principles and Practices for Educating Linguistically Diverse Students Credits: (3)
- OR EDBL 430 - Sheltering Instruction for Linguistically Diverse Students Credits: (3) (for Bilingual/TESL minors)


## Inquiry-Based Learning Credits: 9

Using guiding and supporting questions, problems, or situations to shape learner-centered investigations within educational environments.

- ELEF 495 - Practicum IV: Professional Engagement Credits: (2)
- ELEM 342 - Teaching Elementary Science Inquiry Credits: (4)
- OR SCED 322 - Science Education in the Elementary School Credits: (4)
- ELEM 451-Teaching Elementary Mathematics Early Grades Credits: (3)


## Professional Engagement Credits: 11

Application of ethical, legal, and professional practice in a collaborative context.

- ELEF 426 - Ethics and Education Law for Elementary Teachers Credits: (3)
- ELEF 495 - Practicum IV: Professional Engagement Credits: (2)
- ELEM 452 - Teaching Elementary Mathematics Upper Grades Credits: (4)
- ELEM 471 - Elementary Education Capstone Credits: (2)


## Application Credits: 16

Bridging acquired content, skills, and attitudes to effective learning and teaching implementation.

- EFC 480 - Student Teaching Credits: (16)


## Total Credits: 96

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 146

College and Department Information
Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Middle-level Humanities Teaching Major, BA

The middle-level humanities teaching major is designed for students who are seeking teaching careers in teaching English language arts and social studies (economics, history, geography, social studies and civics) at the middle-level grades (5-8). The coursework provides experiences in the humanities subject content areas and instructional pedagogy including field experiences that are designed to prepare teacher certification and content endorsement. The middle-level humanities teaching major does not require a minor for the degree program. Students in the middle-level humanities teaching major must be admitted to the Teacher Certification Program and complete the Professional Education Program sequence ( 50 credits) coursework as part of the teacher certification process.

## Required Courses

- EDEL 476 - Integrated Humanities at the Middle-level Grades Credits: (5)
- EDEL 477 - Middle School Students and Their Environment Credits: (4)
- EDEL 478 - Developmentally Responsive Curriculum in the Middle Grades Credits: (3)
- EDEL 493 - Professional Educators Field Experience Credits: (1-15) (Must be taken for 3 credits)
- EDLT 324 - Literacy Across the Curriculum Credits: (3)
- ENG 247 - Multicultural Literature Credits: (5)
- ENG 320 - English Grammar Credits: (5)
- ENG 429 - Teaching Writing in Middle-level Humanities Credits: (5)
- ENG 488 - Teaching Portfolio Credits: (2)
- ENG 492 - Practicum Credits: (3)
- HIST 101 - World History to 1500 Credits: (5)
- HIST 143 - United States History to 1865 Credits: (5)
- HIST 301 - Pacific Northwest History Credits: (5)
- POSC 210 - American Politics Credits: (5)

Select one from the following for 5 credits:

- ECON 101 - Economic Issues Credits: (5)
- ECON 102 - World Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)

Select one from the following for 5 credits:

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)

Upper-Division World History to 1600

## Select one from the following for 5 credits:

- HIST 313 - History of Rome 500 B.C. to 500 A. D. Credits: (5)
- HIST 315 - Muslim Middle East (Put on Reserve 9/16/16.) Credits: (5)
- HIST 325 - Renaissance and Reformation Credits: (5)
- HIST 370 - Medieval European History Credits: (5)
- HIST 383 - East Asian Civilization Credits: (5)
- HIST 422 - Roman and Medieval Britain Credits: (5)
- HIST 473 - Russia to 1881 Credits: (5)

Upper-Division United States History to 1900
Select one from the following for 5 credits:

- HIST 339 - Colonial British America Credits: (5)
- HIST 341 - The Constitution and the New Republic, 1783-1800 Credits: (5)
- HIST 440 - The American Revolution Credits: (5)
- HIST 442 - Jefferson, Jackson, and American Growth, 1800-1848 Credits: (5)
- HIST 443 - The West in American History Credits: (5)
- HIST 444 - Sectionalism, Civil War, and Reconstruction Credits: (5)
- HIST 450 - Exploring U.S. Cultural History Credits: (5)
- HIST 454 - American Environmental History Credits: (5)


## Total Credits: 78

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 128

College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Special Education (P-12) Broad Area Major, BAEd

This major is for students planning to earn a teaching certificate with special education P-12 endorsement. Students majoring in special education are only allowed to teach special education unless they have another endorsable major/minor.
(NOTE: Majors of 60 or more credits do not require an accompanying minor.)

University General Education and Professional Education/Core Sequence requirements must also be met for graduation/teacher certification, as well as the completion of an approved university minor.

## Required Courses

- EDEL 323 - Teaching Elementary School Mathematics Credits: (4)
- EDLT 308 - Literacy I Credits: (3)
- EDLT 409 - Literacy II Credits: (5)
- EDLT 422 - Teaching the Language Arts Credits: (4)
- EDSE 310 - Introduction to Special Education Credits: (4)
- EDSE 311 - Foundations of Special Education Credits: (1)
- EDSE 410-Behavior Management for Students with Disabilities Credits: (3)
- EDSE 411 - Assessment of Students with Disabilities Credits: (4)
- EDSE 422 - Teaching Strategies, Curriculum, and Materials for Students with Disabilities Credits: (5)
- EDSE 423 - Instructional Practices/Strategies in Literacy and Math for Students with High Incident Disabilities Credits: (4)
- EDSE 426 - The Child with Language Disabilities Credits: (3)
- EDSE 431 - Individualized Educational Programs for Students with Disabilities Credits: (4)
- EDSE 432 - Strategies for Working with Students with Low Incidence Disabilities Credits: (3)
- EDSE 433 - Pre-school for Students with Developmental Delays Credits: (3)
- EDSE 460 - Collaboration with Parents, Paraprofessionals, and Community Agencies Credits: (4)
- EDSE 495 - Practicum Credits: (5-16) (must be taken for 16 credits)

Total Credits: 70

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 120

College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Special Education (P-12) Major, BAEd

This major satisfies the endorsement for special education. This major is for students planning to earn a teaching certificate with special education P-12 endorsement. This major requires a minor.

Required Courses

- EDSE 310 - Introduction to Special Education Credits: (4)
- EDSE 311 - Foundations of Special Education Credits: (1)
- EDSE 410-Behavior Management for Students with Disabilities Credits: (3)
- EDSE 411 - Assessment of Students with Disabilities Credits: (4)
- EDSE 422 - Teaching Strategies, Curriculum, and Materials for Students with Disabilities Credits: (5)
- EDSE 423 - Instructional Practices/Strategies in Literacy and Math for Students with High Incident Disabilities Credits: (4)
- EDSE 426 - The Child with Language Disabilities Credits: (3)
- EDSE 431 - Individualized Educational Programs for Students with Disabilities Credits: (4)
- EDSE 432 - Strategies for Working with Students with Low Incidence Disabilities Credits: (3)
- EDSE 433 - Pre-school for Students with Developmental Delays Credits: (3)
- EDSE 460 - Collaboration with Parents, Paraprofessionals, and Community Agencies Credits: (4)
- EDSE 495 - Practicum Credits: (5-16) (Must be taken for 16 credits.)

Department-Approved Electives Credits: 3

Total Credits: 57
Professional Education Program Credits: 50

Professional Education Program

Total Credits: 107

College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Bilingual Education/Teaching English as a Second Language Minor

This minor satisfies the endorsement requirements for bilingual education and English Language Learner. This minor serves the goals and requirements of students wishing to teach in classrooms characterized by cultural and linguistic diversity. The Bilingual Education/TESL minor leads to K-12 endorsements in bilingual education and English Language Learners. Students must demonstrate proficiency in a nonEnglish language in order to meet the bilingual education minor requirements. This is to be demonstrated by passing the foreign language examination assessment required by the State of Washington at the proficiency levels required for Bilingual Education candidates.

## Admission Requirements

Candidates must be conditionally admitted to the CWU Teacher Certification program or have a signed non-certification waiver letter on file before admission to program. Candidates may take EDBL 312: Foundations of Bilingual Education, or EDBL 438: Teaching ESL before admission to program.

## Graduation Requirements

Before graduation, candidates must pass the foreign language examination assessment required by the State of Washington at the required proficiency level.

## Required Courses

- EDBL 312 - Foundations in Bilingual Education Credits: (3)
- EDBL 318 - Family, Community, and Culture in Education Credits: (3)
- EDBL 430 - Sheltering Instruction for Linguistically Diverse Students Credits: (3)
- EDBL 433 - Educational Linguistics Credits: (3)
- EDBL 435 - Bilingual Education in the Content Areas Credits: (3)
- EDBL 438 - Teaching English as a Second Language Credits: (3)
- EDBL 439-Assessment of Linguistically Diverse Students Credits: (3)
- EDBL 440 - Development of Literacy with Linguistically Diverse Students Credits: (3)
- EDBL 492 - Practicum Credits: (1-15) (Must be taken for 3 credits) (Four EDBL courses must be completed before EDBL 492 admission)

Total Credits: 27

College and Department Information
Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Early Childhood Education Minor

(with Washington State Teacher Certification)
This minor is intended to prepare the students to become a birth through grade 3 teacher. Students who elect to complete this minor with a teaching endorsement in early childhood education are strongly advised to simultaneously complete the elementary education major (see a department advisor as to how this may be effectively accomplished). Students seeking the teacher certification endorsement in early childhood education must complete Teacher Certification and Professional Education Program requirements and courses ( 50 credits). Candidates must be fully admitted to the minor prior to beginning the six-quarter cohort sequence. All students in the ECE program must have WSP/FBI background and fingerprint clearance. Please check with the CWU Teacher Certification Office (Black Hall, room 228; 509-963-2660) regarding clearance.
(without Washington State Teacher Certification)
A student may complete this minor without gaining entry to the Teacher Certification Program or completing the Professional Education Program. Under such circumstances a teacher certification endorsement in early childhood will not be granted. This option exists for those individuals who wish to work with young children in an infancy/toddler/preschool setting. Candidates must be fully admitted to the minor prior to beginning the six-quarter cohort sequence. All students in the ECE program must have WSP/FBI background and fingerprint clearance. Please check with the CWU Teacher Certification Office (Black Hall, room 228; 509-963-2660) regarding clearance.

## Required Courses

- EDEC 306 - Professional Growth and Expectations Credits: (2)
- EDEC 307-Equity, Culture, and Anti-bias in ECE Credits: (3)
- EDEC 312 - Childhood Learning Credits: (3)
- EDEC 313 - Materials and Manipulatives in ECE Credits: (3)
- EDEC 314 - Learning through Play Credits: (3)
- EDEC 321 - Curriculum I Credits: (3)
- EDEC 322 - Parent Involvement Credits: (3)
- EDEC 411 - Curriculum II Credits: (3)
- EDEC 412 - Responsible Childhood Assessment Credits: (3)
- OR EFC 315 - Educational Assessment Credits: (3)
- EDEC 422 - Classroom Management in an ECE Classroom Credits: (3)
- OR EFC 350 - Classroom Management Credits: (3)
- EDEC 424-Curriculum III Credits: (3)

Total Credits: 32
College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Educating Highly Capable Learners Minor

The educating highly capable learners minor is designed for students and certified teachers who are seeking additional endorsement in working with highly capable (gifted and talented) students in the P-12 educational system. While the minor does not result in an initial Washington State Endorsement, it does qualify for an "Add-on" endorsement that can be attached to an existing Washington State Teaching certificate. Teacher Education Candidates seeking a primary initial endorsement (i.e. Early Childhood Education, Elementary Education, etc.) that requires a minor can add the educating highly capable learners minor to complete the BA in education degree. However, the candidate will not be eligible for the highly capable endorsement until the initial teaching certificate
has been awarded. Practicing teachers and teacher education candidates at K-12 levels can add this minor to develop a broader spectrum of developmental understanding and strategies for working with highly gifted and talented learners.

Teacher education candidates in the Educating Highly Capable Learners Minor Program must be admitted to Teacher Certification Program or currently hold a valid teaching certificate.

Required Courses

- EDEL 401 - Foundations/Philosophy for Teaching Highly Capable Learners Credits: (2)
- EDEL 405 - Societal and Cultural Perceptions of Giftedness Credits: (3)
- EDEL 410 - Identification of Highly Capable Learners Credits: (2)
- EDEL 415 - Learning Environments for Highly Capable Learners Credits: (3)
- EDEL 425 - Curriculum Development/ModificationHighly Capable Learners Credits: (3)
- EDEL 430 - Individual Development of Highly Capable Learners Credits: (3)
- EDEL 435 - Introduction to Project-Based Learning (PBL) Credits: (2)
- EDEL 450 - Planning and Instruction I: Highly Capable Learners Credits: (3)
- EDEL 455 - Planning and Instruction II: Highly Capable Learners Credits: (3)
- EDEL 493 - Professional Educators Field Experience Credits: (1-15)

Total Credits: 30

## Literacy Minor

The literacy minor, with campus and field experiences, is designed to prepare literacy teachers and strengthen background preparation of elementary teachers.

EDLT 308 is a prerequisite for admittance to the minor (EDLT courses) except for EDLT 324. All EDLT courses require acceptance into the TCP. The minor should be commenced in the junior year.

EDLT 409 is a prerequisite for EDLT 493.
EDLT 493 also requires permission of the department (designated as the instructor of EDLT 493).

Permission for EDLT 493 will not be granted until 5 required courses in the literacy minor, excluding EDLT 308 is completed or will be completed the quarter prior to enrollment.

## Required Courses

- EDLT 308 - Literacy I Credits: (3) (prerequisite for EDLT minor courses)
- EDLT 409 - Literacy II Credits: (5) (prerequisite for EDLT 493)
- EDLT 324 - Literacy Across the Curriculum Credits: (3)
- EDLT 410-Teaching Word Recognition Skills Credits: (3)
- EDLT 411 - Teaching Comprehension Credits: (3)
- EDLT 412 - Assessment of Literacy Skills and Processes Credits: (3)
- EDLT 413 - Methods and Materials for Literacy Instruction Credits: (3)
- EDLT 414 - Teaching Literacy in a Multi-Cultural, Multi-Lingual Setting Credits: (3)
- EDLT 418 - Literacy and Linguistics Credits: (3)
- EDLT 493 - Literacy Practicum Credits: (6) (Requires department permission. A minimum of 5 required literacy minor courses, excluding prerequisites, must be completed for permission)

Total Credits: 35

College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Middle-level English Minor (NonEndorsement)

The middle-level English minor is designed for students who are seeking teaching careers at the elementary or middle school level. While this minor does not result in a Washington State middle-level humanities endorsement which requires both the English and social studies content areas, it does provide additional training and expertise in the English and language arts content areas. Candidates seeking the elementary endorsement (K-8) can add this minor to provide an English/language arts content focus area to the generalist teaching degree. Teacher candidates at the middle-level and secondary-level can add this minor to broaden specialized content areas as the first step in adding middle-level humanities (English language arts and social studies) endorsement.

Required Courses

- EDEL 476 - Integrated Humanities at the Middle-level Grades Credits: (5)
- EDEL 477 - Middle School Students and Their Environment Credits: (4)
- EDEL 478 - Developmentally Responsive Curriculum in the Middle Grades Credits: (3)
- EDLT 324 - Literacy Across the Curriculum Credits: (3)
- ENG 247 - Multicultural Literature Credits: (5)
- ENG 303 - Principles of English Studies Credits: (5)
- ENG 320 - English Grammar Credits: (5)
- ENG 429 - Teaching Writing in Middle-level Humanities Credits: (5)
- ENG 488 - Teaching Portfolio Credits: (2)
- ENG 492 - Practicum Credits: (3)

Total Credits: 40

College and Department Information
Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Middle-level Social Studies Minor (Non-Endorsement)

The middle-level social studies minor is designed for students who are seeking teaching careers at the elementary or middle school level. While this minor does not result in a Washington State middle-level humanities endorsement, which requires both the English and social studies content areas, it does provide additional training and expertise in the social studies, history, economics, civics, and geography content areas. Candidates seeking the elementary endorsement (K-8) can add this minor to provide a social studies content focus area to the generalist teaching degree. Teacher candidates at the middle-level and secondary-level can add this minor to broaden specialized content areas as the first step in adding middle-level humanities (English language arts and social studies) endorsement.

## Required Courses

- EDEL 476 - Integrated Humanities at the Middle-level Grades Credits: (5)
- EDEL 477 - Middle School Students and Their Environment Credits: (4)
- EDEL 478 - Developmentally Responsive Curriculum in the Middle Grades Credits: (3)
- EDEL 493 - Professional Educators Field Experience Credits: (1-15) (Must be taken for 3 credits)

Select from the following: Credits (15)

- HIST 101 - World History to 1500 Credits: (5)
- HIST 143 - United States History to 1865 Credits: (5)
- HIST 301 - Pacific Northwest History Credits: (5)
- POSC 210 - American Politics Credits: (5)

Select from the following: Credits (5)

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)

Select from the following: Credits (5)

- ECON 101 - Economic Issues Credits: (5)
- ECON 102 - World Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)

Select from the following: Credits (5)

## Upper-division World History to 1600

- HIST 313 - History of Rome 500 B.C. to 500 A. D. Credits: (5)
- HIST 315 - Muslim Middle East (Put on Reserve 9/16/16.) Credits: (5)
- HIST 325 - Renaissance and Reformation Credits: (5)
- HIST 370 - Medieval European History Credits: (5)
- HIST 383 - East Asian Civilization Credits: (5)
- HIST 422 - Roman and Medieval Britain Credits: (5)
- HIST 473 - Russia to 1881 Credits: (5)

Upper-division United States History to 1900

- HIST 339 - Colonial British America Credits: (5)
- HIST 341 - The Constitution and the New Republic, 1783-1800 Credits: (5)
- HIST 434 - American Indian History to 1795 Credits: (5)
- HIST 438 - American Indian History since 1795 Credits: (5)
- HIST 440 - The American Revolution Credits: (5)
- HIST 442 - Jefferson, Jackson, and American Growth, 1800-1848 Credits: (5)
- HIST 443 - The West in American History Credits: (5)
- HIST 444 - Sectionalism, Civil War, and Reconstruction Credits: (5)
- HIST 450 - Exploring U.S. Cultural History Credits: (5)
- HIST 454 - American Environmental History Credits: (5)

Total Credits: 45

College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Special Education Minor

The special education programs offered are specifically designed to prepare teachers for meeting the diverse tasks required in teaching individuals with disabilities. The minor may serve as a "pre-endorsement" plan for those wishing to add the special education endorsement at a later date. See a special education advisor for your individualized pre-endorsement plan.

## Required Courses

- EDSE 310 - Introduction to Special Education Credits: (4)
- EDSE 311 - Foundations of Special Education Credits: (1)
- EDSE 410-Behavior Management for Students with Disabilities Credits: (3)
- EDSE 411 - Assessment of Students with Disabilities Credits: (4)
- EDSE 422 - Teaching Strategies, Curriculum, and Materials for Students with Disabilities Credits: (5)
- EDSE 423 - Instructional Practices/Strategies in Literacy and Math for Students with High Incident Disabilities Credits: (4)
- EDSE 431 - Individualized Educational Programs for Students with Disabilities Credits: (4)
- EDSE 432 - Strategies for Working with Students with Low Incidence Disabilities Credits: (3)
- EDSE 433 - Pre-school for Students with Developmental Delays Credits: (3)
- EDSE 460 - Collaboration with Parents, Paraprofessionals, and Community Agencies Credits: (4)

Total Credits: 35

College and Department Information

Education, Development, Teaching and Learning Department
College of Education and Professional Studies

## Teaching English as a Second Language (TESL) Minor

This minor satisfies the endorsement for English Language Learner. This minor prepares students to teach in classrooms where linguistically diverse students are enrolled. While the bilingual/TESL minor leads to a bilingual education endorsement, the TESL minor leads to an English Language Learners endorsement. Students must complete, or have already completed, one year of study in a foreign or second language or the equivalent (at either the high school or university level).

## Admission Requirements

Candidates must be conditionally admitted to the CWU Teacher Certification program or have a signed non-certification waiver letter on file before admission to program. Candidates may take EDBL 312: Foundations of Bilingual Education, or EDBL 438: Teaching ESL before admission to program.

## Program Requirements

EDBL 492 requires that four (4) required program courses be completed before enrollment.

## Required Courses

- EDBL 312 - Foundations in Bilingual Education Credits: (3)
- EDBL 318 - Family, Community, and Culture in Education Credits: (3)
- EDBL 430 - Sheltering Instruction for Linguistically Diverse Students Credits: (3)
- EDBL 433 - Educational Linguistics Credits: (3)
- EDBL 438 - Teaching English as a Second Language Credits: (3)
- EDBL 439-Assessment of Linguistically Diverse Students Credits: (3)
- EDBL 440 - Development of Literacy with Linguistically Diverse Students Credits: (3)
- EDBL 492 - Practicum Credits: (1-15) (Must be taken for 3 credits) (Four EDBL courses must be completed before EDBL 492 admission)

Department-Approved Electives Credits: 3

Total Credits: 27

College and Department Information
Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Global Literacy Development Certificate


#### Abstract

Students in the Global Literacy Development Certificate Program will gain knowledge of best practices in literacy development and effective communication strategies. They will be prepared to support professionals in creating and supporting literacy programs in communities across cultures and around the world. This certificate program will be offered at the Ellensburg campus and on-line.


## Required Courses

- COM 365-Organizational Communication Credits: (4)
- EDLT 317 - Early Literacy (On reserve as of 9/16/15) Credits: (3)
- EDLT 321-Teaching Children's Literature Credits: (3)
- EDLT 414 - Teaching Literacy in a Multi-Cultural, Multi-Lingual Setting Credits: (3)
- EDLT 418 - Literacy and Linguistics Credits: (3)
- EDLT 498 - Special Topics Credits: (1-6)
- EDLT 499 - Seminar Credits: (1-5)

Total Credits: 18
College and Department Information

Education, Development, Teaching and Learning Department College of Education and Professional Studies

## Engineering Technologies, Safety, and Construction Department

## College of Education and Professional Studies

Ellensburg
Hogue Technology Building, room 101
509-963-1756
www.cwu.edu/engineering
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Sathyanarayanan (Sathy) Rajendran, PhD, CSP, ARM, LEEDAP

## Professors

Scott Calahan, MEd, industrial/technology education
David Carns, MS, construction management
Craig Johnson, PhD, mechanical engineering technology

## Associate Professors

Roger Beardsley, MS, mechanical engineering technology
David Martin, construction management
Lad Holden, MT, electronics engineering technology
Darren Olson, PhD, industrial technology
P. Warren Plugge, PhD , construction management

Charles Pringle, MS, mechanical engineering technology
Sathyanarayanan (Sathy) Rajendran, PhD, CSP, ARM, LEED-
AP, safety and health management
Michael L. Whelan, PhD, construction management

## Assistant Professors

Morgan Bliss, MS, safety and health management
Greg Lyman, MS, electronics engineering technology

## Senior Lecturer

Michael Andler, MS, safety and health management

## Lecturer

Ted Bramble, MS, industrial engineering technology

## Emeritus Professors

D. Ken Calhoun, EdD

Stanley A. Dudley, MEd
Robert M. Envick, EdD
Ronald M. Frye
Robert Wieking, PhD
Norman H. Wolford, MS
Taiqian Q. Yang, PhD
Tim Yoxtheimer, MS

## Staff

Matthew Burvee, instructional and classroom support technician
Shelley Spencer, department manager
Jeff Wilcox, instructional and classroom support technician

## Department Overview

The Department of Engineering Technologies, Safety, and Construction offers BS and BAS degree programs in various technologies.

## Accrediting Information

The Construction Management program is fully accredited by the American Council for Construction Education (ACCE).

The B.S. in Electronics Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

The B.S. in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

## Department Information

Some programs have specific admission requirements and admission deadlines. Specific information for each program can be found on the program Web site.

Students should seek advising from their program advisor prior to registration each quarter.

Courses with an additional fee are identified in the special course fee section of the student handbook published by the registrar.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/engineering or by contacting the department directly.

# Construction Management Major, BS 

## Co-Coordinators

David Carns, MS
P. Warren Plugge, PhD

## Advisors

David Martin, MS
Michael Whelan, PhD
This major prepares the graduate for management positions in the construction industry. Students must be accepted into the major prior to taking upper-division CMGT courses. See www.cwu.edu/engineering for details. Students pursuing this degree should work closely with their program advisor to ensure that prerequisites for entry into the major have been satisfied.

Construction management students have the choice to concentrate on one of two different construction types; general building or heavy civil construction.

## Admission Requirements

Admission to the program is competitive; refer to construction management handbook on the program website
(www.cwu.edu/engineering/construction-management).

## Exit Requirements

Students are required to complete the Associate Constructor exam administered by American Institute of Constructors and achieve a minimum score of 60 percent to graduate with a BS in construction management.

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- CMGT 101-Construction and the Built Environment Credits: (3)
- CMGT 201 - Computer Applications in Construction Credits: (3)
- CMGT 265 - Construction Documents Credits: (3)
- CMGT 267 - Plane Surveying Credits: (3)
- AND CMGT 267LAB - Plane Surveying Field Session Credits: (1)
- OR CMGT 267LABHC - Heavy Civil Highway Field Session Credits: (1)
- CMGT 320 - Electrical Systems Credits: (3)
- CMGT 343 - Construction Estimating I Credits: (4)
- CMGT 344 - Construction Estimating II Credits: (4)
- OR CMGT 345 - Heavy Civil Estimating II Credits: (4)
- CMGT 346 - Construction Methods and Materials Credits: (4)
- OR CMGT 347-Heavy Civil Methods and Materials Credits: (4)
- CMGT 440 - Temporary Structures Credits: (4)
- OR CMGT 441 - Wood and Steel Construction Credits: (4)
- CMGT 442 - Building Mechanical Systems Credits: (3)
- OR CMGT 443 - Heavy Civil Utilities Credits: (3)
- CMGT 444 - Codes, Contracts, and Specifications Credits: (4)
- OR CMGT 445 - Heavy Civil Contract Law Credits: (4)
- CMGT 447 - Construction Planning, Scheduling, and Control Credits: (4)
- CMGT 450 - Soils and Foundations Credits: (4)
- CMGT 455 - Principles of Construction Management Credits: (4)
- OR CMGT 456-Principles of Heavy Civil Construction Management Credits: (4)
- CMGT 460 - Concrete Construction Credits: (4)
- OR CMGT 461 - Pavement Design and Construction Credits: (4)
- CMGT 481 - Construction Management Capstone Credits: (4)
- OR CMGT 495A - Construction Management Competition Preparation - Fall Credits: (2) (Fall)
- AND CMGT 495B - Construction Management Competition Preparation - Winter Credits: (2) (Winter)
- CMGT 485 - Construction Accounting, Finance, and Contemporary Topics Credits: (4)
- CMGT 488 - Professional Certification Credits: (1)
- COM 345 - Business and Professional Speaking Credits: (4)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ETSC 161 - Architectural Computer Aided Design Credits: (3)
- ETSC 301 - Engineering Project Cost Analysis Credits: (4)
- ETSC 311 - Statics Credits: (4)
- ETSC 312 - Strength of Materials Credits: (4)
- GEOL 101 - Introduction to Geology Credits: (4)
- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MGT 380 - Organizational Management Credits: (5)
- PHYS 181 - General Physics I with Laboratory Credits: (5)
- SHM 323 - Construction Safety and Health Credits: (3)

Select one from the following: Credits: 4

- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- OR ETSC 490 - Cooperative Education Credits: (112) (Must be taken for 4 credits)

OR Department-Approved Elective Course Credits:
(4)

Total Credits: 130

College and Department Information
Engineering Technologies, Safety, and Construction
Department
College of Education and Professional Studies

## Electronics Engineering Technology Major, BS

Advisors<br>Lad Holden, MT<br>Greg Lyman, MS

The technologists graduating from this program are applications oriented, building upon a background of mathematics, science, and technology. They interface with engineers at the product level and produce practical, workable results quickly, install and operate technical systems, devise hardware and software from proven concepts, develop and produce products, service machines, programs, and systems, manage production facilities and work groups, and provide support for technical systems' hardware and software.

Students pursuing this degree should work with the department. Due to the number of hours required, some students may find that this program requires additional time to complete.

Core Requirements - Credits: 68

- CS 110 - Programming Fundamentals I Credits: (4)
- EET 221 - Basic Electricity Credits: (3)
- EET 221LAB - Basic Electricity Laboratory Credits: (1)
- EET 271 - Digital Circuits Credits: (4)
- EET 312 - Basic Electronics Credits: (4)
- EET 323 - Active Linear Circuits Credits: (4)
- EET 325 - Electrical Networks Credits: (4)
- EET 343 - Process Control Credits: (4)
- EET 372 - Advanced Digital Circuits Credits: (4)
- EET 373 - Introduction to Embedded Programming Credits: (4)
- EET 374 - Microprocessors Credits: (4)
- EET 376 - Advanced Microprocessors Credits: (4)
- EET 426 - Advanced Electrical Network Credits: (4)
- EET 452 - Computer Networks Credits: (4)
- ETSC 241 - Programmable Logic Controller Applications Credits: (4)
- ETSC 242 - Instrumentation Credits: (4)
- ETSC 265 - Three-dimensional Modeling Credits: (4)
- ETSC 301 - Engineering Project Cost Analysis Credits: (4)

Pre-Approved Elective Sequences - Credits: 16
Select two of the following sequences.

- CS 111 - Programming Fundamentals II Credits: (4)
- AND CS 301 - Data Structures Credits: (4) OR
- EET 332 - Generation of Electrical Power Credits: (4)
- AND EET 433-Transmission and Distribution of Electrical Power Credits: (4) OR
- EET 377 - Advanced Robotics and Automation Credits: (4)
- AND EET 477 - Industrial Robotics and Automation Credits: (4) OR
- ETSC 490 - Cooperative Education Credits: (1-12) (Must be taken for 8 credits.)

Mathematics Requirement - Credits: 13-15

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Select one from the following:

- MATH 260 - Sets and Logic Credits: (5)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- MATH 330 - Discrete Mathematics Credits: (5)
- MATH 376 - Differential Equations I Credits: (3)

Physics Requirement - Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)
(CHEM 181/181LAB may be substituted for PHYS 112 or PHYS 182)

Speech Requirement - Credits: 3-5

## Select one from the following:

- COM 207 - Introduction to Human Communication Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ETSC 389-Technical Presentations Credits: (3)

Written Communications Requirement - Credits: 3-5

## Select one from the following:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- CS 325-Technical Writing in Computer Science Credits: (3)
- ENG 310 - Technical Writing Credits: (4)

Capstone Sequence - Credits: 10

- EET 487 - Senior Project Management Credits: (2)
- EET 487LAB - Senior Project Management Laboratory Credits: (2)
- EET 488 - Senior Project Quality Credits: (2)
- EET 488LAB - Senior Project Quality Laboratory Credits: (2)
- EET 489 - Senior Technical Presentations Credits: (2)

Department-Approved Electives - Credits: 0-6

- Technical Electives approved by your advisor.

Total Credits: 134

College and Department Information

Engineering Technologies, Safety, and Construction Department
College of Education and Professional Studies
Industrial Engineering Technology Major, BS

## Coordinator

Lad Holden, MT

## Advisors

Scott Calahan, MS
Craig Johnson, PhD
Darren Olson, PhD
This major prepares the graduate for leadership positions in industry and technical distribution. The program applies algebra, trigonometry, and the physical sciences to industrial systems. Students select 40-41 credits by advisement in an area of technical interest. Areas of interest may include technology (general), industrial distribution, industrial electronics, industrial manufacturing, industrial supervision, power systems, cast metals, metal fabrication, non-destructive testing, wood production, or other technical areas by departmental advisement. With departmental approval, transfer students from technical programs may elect to use their technical degree as the elective area of interest.

Students pursuing this degree should work closely with their department advisor to assure that they have met the prerequisites for the upper-division electives.

## Required Courses

- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1) OR
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- EET 221 - Basic Electricity Credits: (3)
- EET 221LAB - Basic Electricity Laboratory Credits: (1)
- EET 271 - Digital Circuits Credits: (4)
- ETSC 160 - Computer-Aided Design and Drafting Credits: (4)
- ETSC 241 - Programmable Logic Controller Applications Credits: (4)
- ETSC 242 - Instrumentation Credits: (4)
- ETSC 301 - Engineering Project Cost Analysis Credits: (4)
- ETSC 380 - Quality Control Credits: (4)
- ETSC 385 - Product Design and Development Credits: (4)
- ETSC 442 - Alternative Energy Resources and Technology Credits: (5)
- ETSC 455 - Engineering Project Management Credits: (4)
- ETSC 490 - Cooperative Education Credits: (1-12) (Must be taken for 4 credits)
- IT 101 - Computer Applications Credits: (3)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MET 310 - Hydraulics/Pneumatics Credits: (4)
- MET 345 - Lean Manufacturing Credits: (4)
- MET 351 - Metallurgy/Materials and Processes Credits: (4)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- SHM 325-Manufacturing Safety and Health Credits: (3)

Select one of the following Credits: 4-5

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- OR ENG 310-Technical Writing Credits: (4)

Total Required Courses Credits: 82-83
Technical Specialization

- Courses by advisement.

Total Specialization Credits: 27-29

Total Credits: 109-112

Additional Information

Transfer students MUST complete a minimum of 25 credits from the ETSC Department.

College and Department Information
Engineering Technologies, Safety, and Construction Department
College of Education and Professional Studies

# Mechanical Engineering Technology Major, BS 

## Coordinator

Craig Johnson, PhD

## Advisors

Roger Beardsley, MS
Charles Pringle, MS
The bachelor of science degree in mechanical engineering technology (MET) has specializations in mechanical or manufacturing technology. The major provides a broad foundation in the practical application of mechanical engineering principles. Graduates concentrating in mechanical technology may pursue one of the following career paths: machine and product design, product and system evaluation, plant operation and management, technical sales, field service, environmental quality control, and energy production. Graduates specializing in manufacturing technology are prepared to enter career paths as tool designers, tool and production planners, numerical control programmers, machine planners, computerassisted machine planners, manufacturing process analysts, quality assurance, and technical field representatives.

Those students who are interested in taking advanced engineering courses after graduation should complete the general physics sequence, (PHYS 181, 182, 183) and mathematics through differential equations.

Students pursuing the MET degree should work with the departmental advisor to ensure that the prerequisites for the upper-division electives have been met. Due to the number of hours in this program, some students may find that this program requires additional time to complete.

## Required Courses

Select either:

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
OR
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- COM 345 - Business and Professional Speaking Credits: (4)
- EET 221 - Basic Electricity Credits: (3)
- EET 221LAB - Basic Electricity Laboratory Credits: (1)
- ENG 310-Technical Writing Credits: (4)
- ETSC 160 - Computer-Aided Design and Drafting Credits: (4)
- ETSC 265 - Three-dimensional Modeling Credits: (4)
- ETSC 301 - Engineering Project Cost Analysis Credits: (4)
- ETSC 311 - Statics Credits: (4)
- ETSC 312 - Strength of Materials Credits: (4)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MET 255 - Machining Credits: (4)
- MET 314 - Applied Thermodynamics Credits: (4)
- MET 314LAB - Applied Thermodynamics Laboratory Credits: (1)
- MET 315 - Fluid Dynamics Credits: (4)
- MET 315LAB - Fluid Dynamics Laboratory Credits: (1)
- MET 327-Technical Dynamics Credits: (4)
- MET 327LAB - Technical Dynamics Laboratory Credits: (1)
- MET 351 - Metallurgy/Materials and Processes Credits: (4)
- MET 351LAB - Metallurgy/Materials and Processes Laboratory Credits: (1)
- MET 387 - Engineering Ethics Credits: (2)
- MET 418 - Mechanical Design I Credits: (4)
- MET 418LAB - Mechanical Design I Laboratory Credits: (1)
- MET 419 - Mechanical Design II Credits: (4)
- MET 419LAB - Mechanical Design II Laboratory Credits: (1)
- MET 426 - Applications in Strength of Materials Credits: (4)
- MET 426LAB - Applications in Strength of Materials Laboratory Credits: (1)
- MET 488 - Professional Certification Exam Preparation Credits: (2)
- MET 489A - Senior Project I Credits: (4)
- MET 489B - Senior Project II Credits: (4)
- MET 489C - Senior Project III Credits: (4)

General or Introductory Physics - Credits: 5

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- OR PHYS 181-General Physics I with Laboratory Credits: (5)

General or Introductory Physics - Credits: 5

- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- OR PHYS 182 - General Physics II with Laboratory Credits: (5)

General or Introductory Physics - Credits: 5

- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
- OR PHYS 183-General Physics III with Laboratory Credits: (5)

Total Required Courses Credits: 117
Department-Approved Technical Electives Credits: 20

- BUS 221 - Introductory Business Statistics Credits: (5)
- EET 477 - Industrial Robotics and Automation Credits: (4)
- ETSC 242 - Instrumentation Credits: (4)
- ETSC 260 - NURBS Modeling Credits: (4)
- ETSC 241 - Programmable Logic Controller Applications Credits: (4)
- ETSC 380 - Quality Control Credits: (4)
- ETSC 455 - Engineering Project Management Credits: (4)
- ETSC 457 - Advanced Foundry Credits: (4)
- ETSC 490 - Cooperative Education Credits: (1-12) (can be taken for up to 4 credits)
- MET 257 - Casting Processes Credits: (4)
- MET 310 - Hydraulics/Pneumatics Credits: (4)
- MET 316 - Applied Heat Transfer Credits: (4)
- MET 316LAB - Applied Heat Transfer Laboratory Credits: (1)
- MET 320 - Fundamentals of Laser Technology Credits: (4)
- MET 345 - Lean Manufacturing Credits: (4)
- MET 355 - Advanced Machining and CNC Programming Credits: (4)
- MET 357 - Welding/Fabrication Credits: (4)
- MET 382 - Plastics and Composites Credits: (4)
- MET 411 - Energy Systems I Credits: (4)
- MET 411LAB - Energy Systems I Laboratory Credits: (1)
- MET 420 - Finite Element Analysis Credits: (4)
- MET 423 - Computer-aided Design and Manufacturing Credits: (4)
- MET 483 - Ceramics and Composites Credits: (4)

Total Credits: 137

College and Department Information

Engineering Technologies, Safety, and Construction
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College of Education and Professional Studies

# Safety and Health Management Major, BS 

## Coordinator

Sathyanarayanan Rajendran, PhD, CSP

## Advisors

Allen Sullivan, PhD
Michael Andler, senior lecturer

## Program Information

The mission of the CWU Safety and Health Management (SHM) Program is to prepare our graduates to be safety and health professionals who have the technical proficiency to help create injury and incident-free workplace. The safety and health field includes many industries, functions, and occupations. Graduates from the curriculum have a history of high employment rates and competitive starting salaries.

The BS in safety and health management is the primary program for the student seeking a baccalaureate degree leading to a career in safety and health management.

## Admission Requirements

SHM pre-major applications are accepted throughout the academic year. Major applications are accepted during spring quarter, and students officially start in the fall quarter. Admission to the program is based upon a review of completed prerequisite courses, and application materials. Please see the program application at www.cwu.edu/engineering.

Admission to any course requires a grade of C or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course.

A student is expected to complete each course used to fulfill a degree program requirement with a grade of C or higher. Students must complete all CWU basic and breadth requirements prior to beginning 400 -level SHM coursework.

Required Basic and Breadth Requirement Courses Credits: 30

- BIOL 201 - Human Physiology Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)
- PHYS 106 - Physics Inquiry Credits: (5)
- PSY 101 - General Psychology Credits: (5)

Choose one of the following mathematics courses: (5)

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)

Choose one of the following chemistry courses: (5)

- CHEM 101 - Chemistry and Planet Earth Credits: (5) OR
- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
OR
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Required Courses Credits: 35-37

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- HED 210 - Drugs and Health Credits: (3)
- HRM 381-Management of Human Resources Credits: (5)

Choose one of the following statistics courses: (5)

- BUS 221 - Introductory Business Statistics Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)

Choose one of the following management courses: (4-5)

- MGT 380 - Organizational Management Credits: (5)
- PSY 456 - Industrial and Organizational Psychology Credits: (4)

Choose one of the following project management courses: (4-5)

- ADMG 374 - Project Management Credits: (5)
- ETSC 455 - Engineering Project Management Credits: (4)

Required Core Courses Credits: 60

- SHM 301 - Fundamentals of Safety and Health Management Credits: (3)
- SHM 323 - Construction Safety and Health Credits: (3)
- OR SHM 325-Manufacturing Safety and Health Credits: (3)
- SHM 351 - Incident Analysis Credits: (3)
- SHM 352 - Systems and Design Credits: (3)
- SHM 353 - Risk and Insurance Credits: (4)
- SHM 371 - Emergency Planning and Preparedness Credits: (4)
- SHM 375-Transportation and Fleet Safety Credits: (4)
- SHM 377 - Hazardous Materials Management Credits: (4)
- SHM 379 - Facility and Building Safety Credits: (4)
- SHM 471 - Fundamentals of Industrial Hygiene Credits: (4)
- SHM 472 - Ergonomics Credits: (3)
- SHM 474 - Safety and Health Management Systems Credits: (4)
- SHM 477 - Environmental Management Credits: (4)
- SHM 480 - Safety and Health Laboratory Credits: (2)
- SHM 481 - Evolving Issues in Safety and Health Management Credits: (2)
- SHM 485 - Safety and Health Management Capstone Credits: (3)
- SHM 490 - Cooperative Education Credits: (1-12) (Must be taken for at least 6 credits)

Department-approved Elective Course Credits: 4-5

Total Credits: 129-132

College and Department Information

Engineering Technologies, Safety, and Construction Department
College of Education and Professional Studies

## Technology Education Broad Area Major, BS

This bachelor of science teaching major satisfies the endorsement for technology education.

Students selecting this major must have a basic background in woods, metals, drafting, and mathematics through trigonometry. ETSC 430 is a prerequisite for student teaching. Students taking this major are required to apply to the Teacher Certification Program and complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

Pre-admission Requirements Credits: 15

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)


## Required Courses

- CTE 410 - Career and Technical Education School to Work Programs Credits: (4)
- EET 271 - Digital Circuits Credits: (4)
- ETSC 145 - Machine Woodworking Credits: (4)
- ETSC 160 - Computer-Aided Design and Drafting Credits: (4)
- ETSC 265 - Three-dimensional Modeling Credits: (4)
- ETSC 277 - Introduction to Robotics Credits: (4)
- ETSC 385 - Product Design and Development Credits: (4)
- ETSC 430 - Methods of Teaching Technology Education Credits: (3)
- ETSC 433 - Technology Education Laboratory Planning Credits: (3)
- ETSC 435 - Technology Education Exit Assessment Credits: (1)
- ETSC 442 - Alternative Energy Resources and Technology Credits: (5)
- MET 255 - Machining Credits: (4)
- MET 310 - Hydraulics/Pneumatics Credits: (4)
- MET 345 - Lean Manufacturing Credits: (4)
- MET 357 - Welding/Fabrication Credits: (4)
- MET 382 - Plastics and Composites Credits: (4)
- SHM 325 - Manufacturing Safety and Health Credits: (3)

Department-Approved Electives Credits: 7-10

Total Credits: 85-88

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 135-138

College and Department Information
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## Technology Education Major, BS

## Coordinator

Scott Calahan, MEd
This bachelor of science teaching major satisfies the endorsement for technology education.

Students selecting this major must also select a minor or other education endorsement. ETSC 430 is a prerequisite for student teaching. Students taking this major are required to apply to the Teacher Certification Program and complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

Pre-admission Requirements Credits: 15

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)

Required Courses

- CTE 410 - Career and Technical Education School to Work Programs Credits: (4)
- EET 271 - Digital Circuits Credits: (4)
- ETSC 145 - Machine Woodworking Credits: (4)
- ETSC 160 - Computer-Aided Design and Drafting Credits: (4)
- ETSC 265 - Three-dimensional Modeling Credits: (4)
- ETSC 277 - Introduction to Robotics Credits: (4)
- ETSC 385 - Product Design and Development Credits: (4)
- ETSC 430 - Methods of Teaching Technology Education Credits: (3)
- ETSC 433 - Technology Education Laboratory Planning Credits: (3)
- ETSC 435 - Technology Education Exit Assessment Credits: (1)
- ETSC 442 - Alternative Energy Resources and Technology Credits: (5)
- MET 255 - Machining Credits: (4)
- MET 310 - Hydraulics/Pneumatics Credits: (4)
- MET 345 - Lean Manufacturing Credits: (4)
- MET 357 - Welding/Fabrication Credits: (4)

Total Credits: 71

Additional Information

The ETSC department strongly suggests for a student to be more competitive in the job market, the following additional courses should be taken.

- MET 382 - Plastics and Composites Credits: (4)
- SHM 325 - Manufacturing Safety and Health Credits: (3)

Professional Education Program Credits: 50
Professional Education Program

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# Construction Safety Minor 

Advisor<br>P. Warren Plugge, PhD

## Program Information

The construction safety minor provides a broad coverage of construction management issues that affect safety and health performance during construction work. Enrollment in upperdivision CMGT courses is based upon space availability.

Admission to any course requires a grade of C or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course. Students are expected to complete each course used to fulfill a program requirement with a grade of C or higher.

## Admission Requirements

The construction safety minor is only available to BS Safety and Health Management majors. Applications are accepted throughout the academic year. Please see the program application available on the Web at www.cwu.edu/engineering for additional information.

## Required Courses

- BUS 241 - Legal Environment of Business Credits: (5)
- CMGT 265 - Construction Documents Credits: (3)
- CMGT 346 - Construction Methods and Materials Credits: (4)
- OR CMGT 347-Heavy Civil Methods and Materials Credits: (4)
- CMGT 442 - Building Mechanical Systems Credits: (3)
- OR CMGT 443-Heavy Civil Utilities Credits: (3)
- CMGT 444 - Codes, Contracts, and Specifications Credits: (4)
- OR CMGT 445 - Heavy Civil Contract Law Credits: (4)
- ETSC 490 - Cooperative Education Credits: (1-12) (Must be taken for at least 3 credits)
- SHM 323 - Construction Safety and Health Credits: (3)

Total Credits: 25
College and Department Information

[^4][^5]
# Industrial Technology Minor 

## Advisors

Scott Calahan, MEd
Lad Holden, MT
Craig Johnson, PhD

Required Courses

Courses to be selected from Department of Industrial Technology courses under department advisement.

Total Credits: 25

College and Department Information

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## Risk Management Minor

The Risk Management Minor (RMM) will provide in-depth knowledge needed to assess and respond to the numerous hazard (insurable) risks faced by all organizations. The RMM will help prepare students for exciting careers within their major, by helping the students build a strong foundation in the science of risk management. The RMM will help students gain practical skills to avoid, reduce, and manage risk, and to develop and implement a balanced hazard risk financing strategy using retention, transfer, and hybrid strategies.

## Admission Requirements

Risk Management Minor (RMM) applications are accepted during the spring quarter, and the students start in the fall quarter. Any CWU student interested in improving their career opportunities can obtain the RMM. For details about the RMM application procedures, contact the Safety and Health Management Program Director.

## Graduation Requirements

Students must earn a cumulative grade point average of 2.0 (on a scale of 4.0) in courses allowed in fulfilling the Risk
Management Minor requirements.

## Program Requirements

A minimum grade of " C " is required in each of the courses used to satisfy the Risk Management Minor.

## Required Courses

- SHM 301 - Fundamentals of Safety and Health Management Credits: (3)
- SHM 353 - Risk and Insurance Credits: (4)
- SHM 454 - Risk Management Principles and Practices Credits: (4)
- SHM 455 - Risk Assessment and Treatment Credits: (4)
- SHM 456 - Risk Financing for Safety and Health Management Credits: (4)
- SHM 482 - Evolving Issues in Risk Management Credits: (1)

Total Credits: 20

## Robotics and Automation Minor

The robotics and automation minor provides students with an introduction to hardware, software, and manufacturing concepts regarding industrial automation.

## Admission Requirements

Students need ETSC Departmental permission to enter the program.

## Graduation Requirements

Student must earn a 2.25 cumulative GPA in the minor courses.

## Program Requirements

Contact the ETSC department for program requirement details.

## Required Courses

- EET 221 - Basic Electricity Credits: (3)
- EET 221LAB - Basic Electricity Laboratory Credits: (1)
- EET 377 - Advanced Robotics and Automation Credits: (4)
- EET 477 - Industrial Robotics and Automation Credits: (4)
- ETSC 241 - Programmable Logic Controller Applications Credits: (4)
- ETSC 242 - Instrumentation Credits: (4)
- ETSC 277 - Introduction to Robotics Credits: (4)

Total Credits: 24

## Safety and Health Management Minor

## Advisors

Sathyanarayanan Rajendran, PhD, CSP
Allen Sullivan, PhD
Michael Andler, senior lecturer

## Program Information

The safety and health management minor is designed for students who are interested in safety and health in the workplace. The program provides course options for the student to tailor the program to their specific career interests. Course selections should best fit the student's major program. Admission to any course required a grade of C or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course. Students are expected to complete each course used to fulfill a degree program requirement with a grade of C or higher.

## Admission Requirements

The safety and health management minor is not available to students majoring in either the BS safety and health management or BAS occupational safety and health programs. Applications are accepted during the spring quarter, and the students will start in the fall quarter. Please see the program application for preferences and evaluation available at www.cwu.edu/engineering.

## Required Courses

- SHM 301 - Fundamentals of Safety and Health Management Credits: (3)
- SHM 323-Construction Safety and Health Credits: (3)
- OR SHM 325-Manufacturing Safety and Health Credits: (3)
- SHM 351 - Incident Analysis Credits: (3)
- SHM 352 - Systems and Design Credits: (3)
- SHM 353 - Risk and Insurance Credits: (4)

Select two elective courses from the following: Credits: 8

- SHM 371 - Emergency Planning and Preparedness Credits: (4)
- SHM 375 - Transportation and Fleet Safety Credits: (4)
- SHM 377 - Hazardous Materials Management Credits: (4)
- SHM 379 - Facility and Building Safety Credits: (4)

Total Credits: 24

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## Traffic Safety Education Minor

Advisor<br>Scott Calahan, MEd (Summer On)

Students desiring an endorsement to teach traffic safety education in the public schools are required to take SED 382, SED 481, SED 482 and SED 484. These courses are taught concurrently during the six-week summer session.

## Required Courses

- SED 382 - Driver Task Analysis Credits: (3) Required for state endorsement.
- SED 481-Teaching Traffic Safety Education: Classroom and Simulation Instruction Credits: (3) Required for state endorsement.
- SED 482 - Teaching Traffic Safety Education: In Car Credits: (5)

Required for state endorsement.

- SED 484 - Safety Program Supervision Credits: (3) Required for state endorsement.
- SHM 375 - Transportation and Fleet Safety Credits: (4)

Total Credits: 18

College and Department Information

Engineering Technologies, Safety, and Construction Department
College of Education and Professional Studies

## English Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 423
Mail Stop 7558
509-963-1546
Fax: 509-963-1561
www.cwu.edu/english
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
George Drake, PhD

## Professors

Liahna Armstrong, PhD, American literature, popular culture, film
Bobby Cummings, PhD, rhetoric, English education, computer composition
George Drake, PhD, British literature, literary theory
Loretta Gray, PhD, applied linguistics, composition, TESOL
Charles Xingzhong Li, PhD, linguistics, TESOL, linguistic approaches to literature
Lisa Norris, MFA, creative writing
Paulus Pimomo, PhD, British literature, post-colonial studies Christopher Schedler, PhD, American and multicultural literature
Christine Sutphin, PhD, Victorian literature, English novel, women's literature
Katharine Whitcomb, MFA, creative writing

## Assistant Professor

Michelle O'Brien, PhD , postcolonial lit, critical race, interdisciplinary gender, and transnational/transpacific literary studies
Cynthia Pengilly, PhD , rhetoric and technical communication
Zachary VandeZande, PhD, creative writing-fiction
Joshua Welsh, PhD, rhetoric, scientific and technical communication
Maya Zeller, MFA, creative writing

## Emeritus Professors

Patricia Callaghan, DA, rhetoric, world literature, English education
Toni Culjak, PhD, American, world and multicultural literature,
film
Philip B. Garrison, MA, non-fiction, poetry writing, world, and Chicano literature
Karen Gookin, MA, general education, technical writing
Mark W. Halperin, MFA, poetry writing, folk literature, modern poetry
Virginia Mack, PhD , general education, Irish literature
Teresa Martin, PhD, English education, women's literature
Steven Olson, PhD, American literature, film
Joseph Powell, MFA, creative writing, modern poetry
Gerald J. Stacy, PhD, English Renaissance literature
John L. Vifian, PhD 18th century literature, English novel

## Senior Lecturers

Stephanie Dringenberg, MA
Ruthi Erdman, MA
Lila Harper, PhD
Colin Hester, MFA
Karen Hull, MA
Marisa Humphrey, MA
Kevin Leaverton, MA
Matthew Martinson, MA
Amanda Ross, MA
Robert Schnelle, MA

## Lecturers

Melissa Brouwer, MA
Pedro Xavier Cavazos, MFA
Catherine Day, MA
Sonya Dunning, MFA
Seanse Ducken, MFA
Steven Horowitz, MFA
Kayla Jeffress, MA
Maili Jonas, MA
Alexis Renfro, MA
Cindy Reyna, MA
Peter Rampa, MA
Emma Saucedo, MA
Travis Smith, MA
Amy Strole, MA
James Tyler Thomas, MA
Shannon Wilson, PhD

## Staff

Vickie Winegar, secretary supervisor
Krislon Rhynes, office assistant III

## Department Information

The Department of English offers undergraduate and graduate courses in American, British, and world literature, English language and linguistics, English education, film study, and professional and creative writing. The study of English helps students to develop and enhance skills in critical analysis and written and oral communication. English program graduates pursue a variety of careers, including business, education, government, law, publishing, and writing.

## Departmental Honors in English

The honors program in English recognizes the superior scholarship of qualified majors. To qualify for the program, students must have a minimum GPA of 3.4 overall and 3.7 in English and be recommended by three faculty members. In addition to their regular course of study, qualified students complete an individual study course culminating in an honors paper. A student whose honors paper is accepted will graduate
with departmental honors in English. For additional details, consult the department website.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/english or by contacting the department directly.

## English Language and Literature Major, BA

The study of literature trains students in reflective reading, theoretically based inquiry, critical analysis, and effective verbal and written expression. Students are taught to analyze literary works as representations of literary genres and in historical and cultural contexts as well as to examine literary influence and explore literature through the lens of critical theory. Majors are expected to complete English 302 and English 303 during their first quarter in the major.

Required Courses

- ENG 302 - Poetry and Poetics Credits: (5)
- ENG 303 - Principles of English Studies Credits: (5)
- ENG 320 - English Grammar Credits: (5)
- ENG 363 - Shakespeare Credits: (5)
- ENG 489 - Senior Colloquium Credits: (2)

Select two literary forms courses - Credits: 10

- ENG 380 - Studies in Drama Credits: (5)
- ENG 453 - Studies in Fiction Credits: (5)
- ENG 454 - Studies in Nonfiction Credits: (5)
- ENG 455 - Studies in Poetry (Put on Reserve 9/16/16.) Credits: (5)

Select one language and linguistics course- Credits: 5

- ENG 304 - English Linguistics Credits: (5)
- ENG 423 - History of the English Language Credits: (5)

Select two literature and history courses - Credits: 10

- ENG 371 - Literature and History I Credits: (5)
- ENG 372 - Literature and History II Credits: (5)
- ENG 373 - Literature and History III Credits: (5)
- ENG 374 - Literature and History IV Credits: (5)

Select one critical studies course - Credits: 5

- ENG 415 - Critical Studies in American Literature Credits: (5)
- ENG 417 - Critical Studies in World Literature Credits: (5)
- ENG 419 - Critical Studies in British Literature Credits: (5)

Select two literature and culture courses - Credits: 10

- ENG 330-African American Literature Credits: (5)
- ENG 331 - Latina/o Literature Credits: (5)
- ENG 332 - American Indian Literature Credits: (5)
- ENG 333 - Asian American Literature Credits: (5)
- ENG 334 - American Indian Oral and Nonfiction Literature Credits: (5)
- ENG 335 - Women's Literature Credits: (5)

Department-Approved Electives - Credits: 10
Select 10 credits of English literature, language, writing or film studies (Elective credits may be taken from any English literature, language, or film studies course at the 300 level or above. No more than 5 credits of film studies may be counted as elective credits in the English language and literature major. One 200 -level course (up to 5 credits) may be counted as an elective.)

Total Credits: 72

College and Department Information

English Department
College of Arts and Humanities

## English Language Arts Teaching Major, BA

This major satisfies the endorsement for English/language arts. Majors must complete the Teacher Certification Program requirements for secondary certification available through the Department of Education Foundations and Curriculum. Majors are expected to complete ENG 302 and ENG 303 prior to enrolling in other upper-division major requirements. English $422,430,488$ and 492 are required prior to student teaching. English 430, 488 and 492 must be taken concurrently. All other major requirements must be completed before enrollment in or taken concurrently with ENG 488. Enrollment in ENG 488 is by permission.

## Required Courses

- ENG 222 - Multicultural Literature for Teachers Credits: (5)
- ENG 302 - Poetry and Poetics Credits: (5)
- ENG 303 - Principles of English Studies Credits: (5)
- ENG 304 - English Linguistics Credits: (5)
- ENG 320 - English Grammar Credits: (5)
- ENG 363 - Shakespeare Credits: (5)
- ENG 422 - Teaching Young Adult Literature Credits: (5)

Prerequisite: admission to Teacher Education Program and 15 credits of professional sequence.

- ENG 430 - Teaching Writing in the Secondary School Credits: (5)
Prerequisite: EDCS 311 and 28 credits in English.
- ENG 488 - Teaching Portfolio Credits: (2) Requires concurrent enrollment in ENG 430 and ENG 492.
- ENG 492 - Practicum Credits: (3)

Requires concurrent enrollment in ENG 430 and ENG 488.

Select one literary forms course - Credits: 5

- ENG 380 - Studies in Drama Credits: (5)
- ENG 453 - Studies in Fiction Credits: (5)
- ENG 454 - Studies in Nonfiction Credits: (5)
- ENG 455 - Studies in Poetry (Put on Reserve 9/16/16.) Credits: (5)

Select two literature and history courses - Credits: 10

- ENG 371 - Literature and History I Credits: (5)
- ENG 372 - Literature and History II Credits: (5)
- ENG 373 - Literature and History III Credits: (5)
- ENG 374 - Literature and History IV Credits: (5)

Select one writing course - Credits: 5

- ENG 263 - Introduction to Creative Writing Credits: (5)
- ENG 364 - Fiction Writing Credits: (5)
- ENG 365 - Poetry Writing Credits: (5)
- ENG 366 - Creative Nonfiction Writing Credits: (5)

Select one critical studies course Credits: 5

- ENG 415 - Critical Studies in American Literature Credits: (5)
- ENG 417 - Critical Studies in World Literature Credits: (5)
- ENG 419 - Critical Studies in British Literature Credits: (5)

Total Credits: 70

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 120

College and Department Information

English Department
College of Arts and Humanities

## English Professional and Creative Writing, BA


#### Abstract

The major combines a liberal arts background in literature with specialized writing courses in creative writing (fiction, poetry, creative nonfiction, screenwriting), business writing, professional writing, scientific and technical writing, editing, and publishing.


Required Courses

- ENG 263 - Introduction to Creative Writing Credits: (5)
- OR ENG 264 - Introduction to Creative Writing and the Environment Credits: (5)
- OR ENG 265 - Introduction to Creative Writing as "Mindfulness, Health and Well-Being" Credits: (5)
- ENG 301 - Rhetoric for Professional Writers Credits: (5)
- ENG 302 - Poetry and Poetics Credits: (5)
- ENG 303 - Principles of English Studies Credits: (5)
- ENG 320 - English Grammar Credits: (5)
- ENG 323 - Writing and Editing for Publication Credits: (5)
- ENG 489 - Senior Colloquium Credits: (2)

Total Required Courses Credits: 32

Approved Writing Electives
Select 27 credits from a combination of creative writing, professional writing and editing, and practicum courses. At least 2 credits must be practicum credits and at least one 400 -level creative writing or professional writing and editing elective class is required.

Creative Writing Courses:

- ASP 435 - Accessible Information Design Credits: (5)
- COM 409 - Magazine Freelancing Credits: (4)
- FILM 267 - Screenwriting Fundamentals Credits: (4)
- OR ENG 267 - Screenwriting Fundamentals Credits: (4)
- FILM 357 - Writing for Serial Media Credits: (4)
- OR ENG 357 - Writing for Serial Media Credits: (4)
- FILM 457 - Narrative Screenwriting II Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- ENG 364 - Fiction Writing Credits: (5)
- ENG 365 - Poetry Writing Credits: (5)
- ENG 366 - Creative Nonfiction Writing Credits: (5)
- ENG 368 - Multi-Genre Writing Workshop Credits: (5)
- ENG 369 - Variable Topics Writing Workshop Credits: (5)
- ENG 464 - Advanced Fiction Writing Credits: (5)
- ENG 465 - Advanced Poetry Writing Credits: (5)
- ENG 466 - Advanced Creative Nonfiction Writing Credits: (5)
- ENG 468 - Contemporary Writers Colloquium Credits: (5)
- ENG 473 - Grant Writing: Theory and Practice Credits: (5)
- TH 330 - Introduction to Playwriting Credits: (4)

Practicum Courses:

- COM 446 - Pulse Credits: (2)
- COM 468 - Observer Credits: (1-3)
- ENG 484 - Manastash: Literary Editing Credits: (3)
- ENG 485 - Manastash: Literary Design and Production Credits: (2)
- ENG 490 - Cooperative Education Credits: (1-12)
- ENG 493 - Online Practicum Credits: (3-5)

Professional Writing and Editing Courses:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 208 - Introduction to Public Relations Writing Credits: (4)
- COM 347 - Copy Editing Credits: (4)
- COM 348 - Publication Design Credits: (4)
- ENG 310 - Technical Writing Credits: (4)
- ENG 311 - Business Writing Credits: (3)
- ENG 404 - Advanced Technical Writing Credits: (5)
- ENG 472 - Research Methods for Workplace Writers Credits: (5)
- IT 248 - Web Fundamentals Credits: (4)
- IT 288 - Business Presentation Applications Credits: (2)
- LAJ 410 - Legal Writing Credits: (4)

Total Approved Writing Electives Credits: 27

Literature Course Credits: 5
Select one course from the following:

- ENG 330 - African American Literature Credits: (5)
- ENG 331 - Latina/o Literature Credits: (5)
- ENG 332 - American Indian Literature Credits: (5)
- ENG 333 - Asian American Literature Credits: (5)
- ENG 334 - American Indian Oral and Nonfiction Literature Credits: (5)
- ENG 335 - Women's Literature Credits: (5)
- ENG 363 - Shakespeare Credits: (5)
- ENG 371 - Literature and History I Credits: (5)
- ENG 372 - Literature and History II Credits: (5)
- ENG 373 - Literature and History III Credits: (5)
- ENG 374 - Literature and History IV Credits: (5)
- ENG 380 - Studies in Drama Credits: (5)
- ENG 453 - Studies in Fiction Credits: (5)
- ENG 454 - Studies in Nonfiction Credits: (5)

Literature, Linguistics, and Film Electives Credits: 10

Select 10 additional credits of literature, linguistics, and film studies courses at or above the 300 -level. No more than 5 credits of film may be counted as elective credits in the professional and creative writing major.

Total Credits: 74

College and Department Information

English Department
College of Arts and Humanities

## Creative Writing Minor

This minor allows students to develop their craft in poetry, fiction, creative nonfiction and other genres through workshops led by faculty who are practicing writers.

## Required Courses

- ENG 302 - Poetry and Poetics Credits: (5)

Select 20 credits of creative writing courses:

- ENG 263 - Introduction to Creative Writing Credits: (5)
- OR ENG 264 - Introduction to Creative Writing and the Environment Credits: (5)
- OR ENG 265 - Introduction to Creative Writing as "Mindfulness, Health and Well-Being" Credits: (5)
- ENG 267 - Screenwriting Fundamentals Credits: (4)
- OR FILM 267 - Screenwriting Fundamentals Credits: (4)
- ENG 357 - Writing for Serial Media Credits: (4)
- OR FILM 357 - Writing for Serial Media Credits: (4)
- ENG 364 - Fiction Writing Credits: (5)
- ENG 365 - Poetry Writing Credits: (5)
- ENG 366 - Creative Nonfiction Writing Credits: (5)
- ENG 368 - Multi-Genre Writing Workshop Credits: (5)
- ENG 369 - Variable Topics Writing Workshop Credits: (5)
- ENG 464 - Advanced Fiction Writing Credits: (5)
- ENG 465 - Advanced Poetry Writing Credits: (5)
- ENG 466 - Advanced Creative Nonfiction Writing Credits: (5)
- ENG 468 - Contemporary Writers Colloquium Credits: (5)
- TH 313 - Writing for Theatre for Young Audiences Credits: (3)
- TH 330 - Introduction to Playwriting Credits: (4)

Select one literature course at the 300-level or above - Credits: 5

Total Credits: 30

College and Department Information

English Department
College of Arts and Humanities

## English Language and Literature Minor

As with the English major, the English minor trains students in reflective reading, theoretically based inquiry, critical analysis, and effective verbal and written expression. The skills developed in the English minor readily complement a wide variety of majors across the university.

## Required Courses

- ENG 302 - Poetry and Poetics Credits: (5)
- ENG 303 - Principles of English Studies Credits: (5)

Department-approved electives - Credits: 20

Select 20 credits of literature or language courses at the 300level or above.

Total Credits: 30

College and Department Information

English Department
College of Arts and Humanities

## Linguistics Minor

The linguistics minor allows students to gain a broader understanding of language and language acquisition. It draws on multiple disciplines and complements a wide range of majors.

Required Courses Credits: 15

- ENG 304 - English Linguistics Credits: (5)
- ENG 320 - English Grammar Credits: (5) and one from the following:
- ENG 432 - Phonetics and Phonology Credits: (5)
- ENG 437 - Pedagogical Grammar and Discourse Credits: (5)

Select 10 credits approved electives from the following or other courses by advisement Credits: 10

- ANTH 180 - Language and Culture Credits: (5)
- ANTH 381 - Language in Culture Credits: (4)
- ANTH 382 - Descriptive Linguistics Credits: (4)
- ANTH 384 - Language and Gender Credits: (4)
- COM 302 - Intercultural Communication Credits: (4)
- EDBL 433 - Educational Linguistics Credits: (3)
- EDBL 438 - Teaching English as a Second Language Credits: (3)
- EDBL 440 - Development of Literacy with Linguistically Diverse Students Credits: (3)
- ENG 423 - History of the English Language Credits: (5)
- ENG 435 - Linguistics, Literature, and TESOL Credits: (5)
- ENG 496 - Individual Study Credits: (1-6)
- WL 481 - Methods and Materials for Language Teaching Credits: (4)
- WL 482 - Second- and Foreign-language Acquisition (On reserve as of 9/16/15) Credits: (4)
- WL 483 - Sociolinguistics Credits: (4)

Total Credits: 25

College and Department Information

English Department
College of Arts and Humanities

## Technical Writing Minor

The interdisciplinary minor in technical writing provides students a focused understanding of technical writing, editing, and design skills for the workplace. It can be completed entirely online to serve professionals already working in careers as well as students planning to begin professional or technical careers. The minor provides practical, hands-on skills as well as opportunities for service learning with real-world clients. Note: Students in the Professional and Creative Writing major may not enroll in the Technical Writing Minor.

## Admission Requirements

Admission to the program requires an application approved by the English Department.

## Graduation Requirements

Successful completion of required and elective courses with a minimum of C in all courses.

Required Courses Credits: 9

- ENG 310 - Technical Writing Credits: (4)
- ENG 404 - Advanced Technical Writing Credits: (5)

Information Design Credits: 5

Choose one from the following:

- ASP 435 - Accessible Information Design Credits: (5)
- ENG 315 - Visual Rhetoric and Document Design Credits: (5)

Department-Approved Electives Credits: 11-15

Choose three of the following writing courses:

- ASP 305 - Accessibility and User Experience Credits: (3)
- ASP 325 - Universal Design Credits: (4)
- ASP 435 - Accessible Information Design Credits: (5)
- ENG 301 - Rhetoric for Professional Writers Credits: (5)
- ENG 315 - Visual Rhetoric and Document Design Credits: (5)
- ENG 456 - Studies in Rhetoric Credits: (5) (No more than 5 credits of ENG 456 may be applied to the minor)
- ENG 472 - Research Methods for Workplace Writers Credits: (5)
- ENG 473 - Grant Writing: Theory and Practice Credits: (5)
- IT 248 - Web Fundamentals Credits: (4)

Total Credits: 25-29

## Professional Writing Certificate (ENG)

Professional Writing Certificate

The professional writing certificate allows students to develop their writing skills for professional and business environments. It is delivered entirely online to serve professionals already working in careers as well as students planning to begin professional or business careers. Students will learn the rhetorical requirements for specific forms of written communication, including letters, memos, reports, proposals, promotional materials, and press releases. They will also learn to edit their own writing for clarity, correctness, and style.

Required Courses

- ENG 301-Rhetoric for Professional Writers Credits: (5)
- ENG 310 - Technical Writing Credits: (4)
- COM 347 - Copy Editing Credits: (4)
- COM 370 - Advanced Public Relations Writing Credits: (4)


## Total Credits: 17

College and Department Information

# English Department Environmental Studies <br> <br> Program 

 <br> <br> Program}

## College of the Sciences

Ellensburg
Science II (SCCN) 111a/b
Mail Stop 7534
509-963-2222
www.cwu.edu/environmental
See website for how this program may be used for educational and career purposes.

## Director

Pamela McMullin-Messier, PhD

## Program Information

The Environmental Studies Program at CWU was established in the 1970s to provide an interdisciplinary approach to the study of environmental issues. The program is administered through the College of the Sciences and has options for both a major (BS) in five areas of specialization and a minor. The program core features team-taught courses including General Education courses that are taught by faculty from multiple disciplines.

## Bachelor of Science

## Environmental Sciences Major

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.

## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C- in all ENST core courses.


## Requirements for a double major with BS in environmental sciences

The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements (7-10 credits).

Bachelor Degree (Disciplinary)
Bachelor Degree (Environmental Sciences)
BS Biology
BS Environmental Sciences: Environmental Biology
Specialization
BS Chemistry
BS Environmental Sciences: Environmental Chemistry Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology Specialization

BA Geography
BS Environmental Sciences: Environmental Geography Specialization

BS Public Policy
BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed; unique means credits that have not already been used towards another environmental sciences specialization.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/environmental or by contacting the department directly.

> Environmental Sciences BS, Environmental Biology Specialization

## Environmental Sciences Core and Requirements

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.

## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C-in all ENST core courses.


## Requirements for a double major with BS in environmental sciences

The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements ( $7-10$ credits).

Bachelor Degree (Disciplinary)
Bachelor Degree (Environmental Sciences)
BS Biology
BS Environmental Sciences: Environmental Biology Specialization

## BS Chemistry <br> BS Environmental Sciences: Environmental Chemistry <br> Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology
Specialization

## BA Geography <br> BS Environmental Sciences: Environmental Geography <br> Specialization

BS Public Policy

BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed; unique means credits that have not already been used towards another environmental sciences specialization.

## Foundational Courses Credits: 25

Please refer to general and major advisors and ENST advising worksheet(s) to select required and/or requisite courses for the specialization(s).

Biology Credits: (5)

Select one from the following:

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)

Chemistry Credits: (5)

Select one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Economics Credits: (5)
Select one from the following:

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Geoscience Credits: (5)
Select one from the following:

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103-Geology of Washington Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOG 107 - Our Dynamic Earth Credits: (5)

Social Science Credits: (5)
Select one from the following:

- ANTH 130 - Cultural Worlds Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Core Courses Credits: 33-35

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- OR ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 487 - End-of-Major Capstone Credits: (1)

Culminating Experience Credits: (3-5)
Select one or a combination of the following (internship, research, service-learning, or study abroad experience):

- ENST 490 - Cooperative Education Credits: (1-12)
- ENST 495 - Senior Research Credits: (3-5) OR (other 495 Senior Research)
- UNIV 304 - International Sustainable Development Credits: (5)
- UNIV 309 - Civic Engagement Credits: (2)

Department-Approved Upper-Level Electives: Credits: 8-10
Select two of the following courses. Note: these courses cannot be used to fulfill specialization requirements.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- OR GEOG 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- OR GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- BUS 389 - Sustainable Business Credits: (5)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 455 - Environmental Literature Credits: (3)
- ENST 460 - Environmental Law Credits: (5)
- OR GEOG 445 - Environmental Law Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 330-Geopolitics of Fossil Fuels Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)

Total Environmental Sciences Core Credits: 66-70

Environmental Biology Specialization
Note: BIOL 181 and CHEM 181/181LAB are required as foundational courses for this specialization.

- BIOL 182 - General Biology II Credits: (5)
- BIOL 183-General Biology III Credits: (5)
- BIOL 213 - Introductory Biostatistics Credits: (4)
- BIOL 360 - General Ecology Credits: (5)
- CHEM 182 - General Chemistry II Credits: (4)
- AND CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- AND CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Choose one field course from the following: Credits: 4-5

- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- BIOL 461 - Community Ecology Credits: (3)
- AND BIOL 461LAB - Community Ecology Laboratory Credits: (2)
- BIOL 462 - Wildlife and Fisheries Ecology Credits: (5)
- BIOL 463 - Limnology Credits: (5)
- BIOL 464 - Terrestrial Plant Ecology Credits: (5)
- BIOL 466 - Conservation Biology Credits: (5)
- BIOL 467 - Biological Field Techniques Credits: (5)

Specialization Subtotal Credits: 33-34
Total Credits: 99-104

College and Department Information
Environmental Studies Program
College of the Sciences

## Environmental Sciences BS, Environmental Chemistry Specialization

## Environmental Sciences Core and Requirements

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.

## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C-in all ENST core courses.


## Requirements for a double major with BS in environmental sciences <br> The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements (7-10 credits). <br> Bachelor Degree (Disciplinary) <br> Bachelor Degree (Environmental Sciences) <br> BS Biology <br> BS Environmental Sciences: Environmental Biology Specialization <br> BS Chemistry <br> BS Environmental Sciences: Environmental Chemistry Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology Specialization

BA Geography<br>BS Environmental Sciences: Environmental Geography Specialization

BS Public Policy
BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be
completed; unique means credits that have not already been used towards another environmental sciences specialization.

Foundational Courses Credits: 25

Please refer to general and major advisors and ENST advising worksheet(s) to select required and/or requisite courses for the specialization(s).

## Biology Credits: (5)

Select one from the following:

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)

Chemistry Credits: (5)
Select one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Economics Credits: (5)

Select one from the following:

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Geoscience Credits: (5)
Select one from the following:

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103-Geology of Washington Credits:
(4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOG 107 - Our Dynamic Earth Credits: (5)

Social Science Credits: (5)
Select one from the following:

- ANTH 130 - Cultural Worlds Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Core Courses Credits: 33-35

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- OR ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 487 - End-of-Major Capstone Credits: (1)

Culminating Experience Credits: (3-5)
Select one or a combination of the following (internship, research, service-learning, or study abroad experience):

- ENST 490 - Cooperative Education Credits: (1-12)
- ENST 495 - Senior Research Credits: (3-5) OR (other 495 Senior Research)
- UNIV 304 - International Sustainable Development Credits: (5)
- UNIV 309 - Civic Engagement Credits: (2)

Department-Approved Upper-Level Electives: Credits: 8-10
Select two of the following courses. Note: these courses cannot be used to fulfill specialization requirements.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- OR GEOG 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- OR GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- BUS 389 - Sustainable Business Credits: (5)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 455 - Environmental Literature Credits: (3)
- ENST 460 - Environmental Law Credits: (5)
- OR GEOG 445 - Environmental Law Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)

Total Environmental Sciences Core Credits: 66-70

Environmental Chemistry Specialization
Note: CHEM 181/181LAB is required as a foundational course for this specialization.

- CHEM 182 - General Chemistry II Credits: (4)
- AND CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183-General Chemistry III Credits: (4)
- AND CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- CHEM 332 - Quantitative Analysis Credits: (3)
- AND CHEM 332LAB - Quantitative Analysis Laboratory Credits: (2)
- CHEM 345 - Environmental Chemistry Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)

Select one from the following: Credits: 5

- BIOL 220 - Introductory Cell Biology Credits: (5)
- BIOL 322 - Introductory Microbiology Credits: (5)
- CHEM 452 - Instrumental Analysis Lecture Credits: (3)
- AND CHEM 452LAB - Instrumental Analysis Laboratory Credits: (2)
- GEOL 425 - Environmental Geochemistry Credits: (5)

Specialization Subtotal Credits: 30

Total Credits: 96-100

College and Department Information

Environmental Studies Program
College of the Sciences

# Environmental Sciences BS, Environmental Geography Specialization 

## Environmental Sciences Core and Requirements


#### Abstract

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.


## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C- in all ENST core courses.


## Requirements for a double major with BS in environmental sciences

The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements (7-10 credits).

Bachelor Degree (Disciplinary)
Bachelor Degree (Environmental Sciences)
BS Biology
BS Environmental Sciences: Environmental Biology Specialization

## BS Chemistry

BS Environmental Sciences: Environmental Chemistry Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology
Specialization
BA Geography
BS Environmental Sciences: Environmental Geography Specialization

## BS Public Policy <br> BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed; unique means credits that have not already been used towards another environmental sciences specialization.

## Foundational Courses Credits: 25

Please refer to general and major advisors and ENST advising worksheet(s) to select required and/or requisite courses for the specialization(s).

Biology Credits: (5)

Select one from the following:

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)

Chemistry Credits: (5)
Select one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Economics Credits: (5)
Select one from the following:

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Geoscience Credits: (5)

Select one from the following:

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103 - Geology of Washington Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOG 107 - Our Dynamic Earth Credits: (5)

Social Science Credits: (5)
Select one from the following:

- ANTH 130 - Cultural Worlds Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Core Courses Credits: 33-35

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- OR ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 487 - End-of-Major Capstone Credits: (1)

Culminating Experience Credits: (3-5)
Select one or a combination of the following (internship, research, service-learning, or study abroad experience):

- ENST 490-Cooperative Education Credits: (1-12)
- ENST 495 - Senior Research Credits: (3-5) OR (other 495 Senior Research)
- UNIV 304 - International Sustainable Development Credits: (5)
- UNIV 309 - Civic Engagement Credits: (2)

Department-Approved Upper-Level Electives: Credits: 8-10
Select two of the following courses. Note: these courses cannot be used to fulfill specialization requirements.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- OR GEOG 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- OR GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- BUS 389 - Sustainable Business Credits: (5)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 455 - Environmental Literature Credits: (3)
- ENST 460 - Environmental Law Credits: (5)
- OR GEOG 445 - Environmental Law Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)

Total Environmental Sciences Core Credits: 66-70
Environmental Geography Specialization
Note: GEOG 107 AND GEOG 208 are required as foundational courses for this specialization. GEOG 107 is a prerequisite to most courses listed below. Additional prerequisites are noted with asterisks.

Physical Geography Courses Credits: 10
Choose two of the following:

- GEOG 361 - Soils Credits: (5)
- GEOG 382 - Hydrology Credits: (5)
- GEOG 386-Geomorphology Credits: (5)
- GEOG 387 - Biogeography Credits: (5)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 453 - Riparian and Wetlands Analysis Credits: (5)
- GEOG 483 - Snow Credits: (5)

Techniques Courses Credits: 10

Choose two of the following:

- GEOG 303 - GIS and Data Management Credits: (5) *
- GEOG 325 - Field Methods in Geography Credits: (5)
- GEOG 330 - Airphoto Interpretation Credits: (5) *
- GEOG 404 - GIS Analysis Credits: (5) ***
- GEOG 409 - Quantitative Methods in Geography Credits: (5)
- GEOG 430 - Remote Sensing Credits: (5) **
* requires prerequisite of GEOG 301.
** requires corequisite or prerequisite of GEOG 330
or GEOL 210 or consent of instructor.
*** requires prerequisite of GEOG 303.
Resource Courses Credits: 8-10

Choose two of the following:

- GEOG 373 - Water Resources Credits: (4)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 449 - Environmental Hazard Analysis and Management Credits: (5)
- GEOG 455 - Pyrogeography Credits: (4)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOG 458 - People, Parks, and Protected Areas Credits: (4)

Geography Electives Credits: 5

Choose one from the following:

- GEOG 450 - Arid Environments Credits: (5)
- GEOG 451 - Mountain Environments Credits: (5)
- GEOG 452 - Coastal Environments Credits: (5)
- GEOG 454 - Forest Environments Credits: (5)
- GEOG 479 - Geography of the West Credits: (1-12)

Specialization Subtotal Credits: 33-35

Total Credits: 99-105

College and Department Information

Environmental Studies Program
College of the Sciences

## Environmental Sciences BS, Environmental Geology Specialization

## Environmental Sciences Core and Requirements

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.

## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the
classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C- in all ENST core courses.


## Requirements for a double major with BS in environmental sciences

The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements (7-10 credits).

Bachelor Degree (Disciplinary) Bachelor Degree (Environmental Sciences)

BS Biology
BS Environmental Sciences: Environmental Biology Specialization

## BS Chemistry

BS Environmental Sciences: Environmental Chemistry Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology Specialization

BA Geography
BS Environmental Sciences: Environmental Geography Specialization

BS Public Policy
BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed; unique means credits that have not already been used towards another environmental sciences specialization.

## Foundational Courses Credits: 25

Please refer to general and major advisors and ENST advising worksheet(s) to select required and/or requisite courses for the specialization(s).

Biology Credits: (5)
Select one from the following:

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)

Chemistry Credits: (5)
Select one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Economics Credits: (5)

Select one from the following:

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Geoscience Credits: (5)
Select one from the following:

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103-Geology of Washington Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOG 107 - Our Dynamic Earth Credits: (5)

Social Science Credits: (5)
Select one from the following:

- ANTH 130 - Cultural Worlds Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Core Courses Credits: 33-35

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- OR ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 487 - End-of-Major Capstone Credits: (1)

Culminating Experience Credits: (3-5)
Select one or a combination of the following (internship, research, service-learning, or study abroad experience):

- ENST 490 - Cooperative Education Credits: (1-12)
- ENST 495 - Senior Research Credits: (3-5) OR (other 495 Senior Research)
- UNIV 304 - International Sustainable Development Credits: (5)
- UNIV 309-Civic Engagement Credits: (2)

Department-Approved Upper-Level Electives: Credits: 8-10
Select two of the following courses. Note: these courses cannot be used to fulfill specialization requirements.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- OR GEOG 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- OR GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- BUS 389 - Sustainable Business Credits: (5)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 455 - Environmental Literature Credits: (3)
- ENST 460 - Environmental Law Credits: (5)
- OR GEOG 445 - Environmental Law Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 330-Geopolitics of Fossil Fuels Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)

Total Environmental Sciences Core Credits: 66-70

Environmental Geology Specialization

Note: GEOL 101/101LAB or GEOL 103/101LAB or GEOL $107 / 101 \mathrm{LAB}$ or GEOL 108/101LAB is required as foundational courses for this specialization and a prerequisite for most of the courses listed below.

- GEOL 200 - Earth's Evolution and Global Change Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- OR GEOL 384 - Ocean, Atmosphere and Climate Interactions Credits: (4) (note: this course is writing intensive)
- GEOL 380 - Natural Hazards Credits: (5)
- OR GEOL 382 - Earth Resources and Pollution Credits: (4)
- GEOL 386-Geomorphology Credits: (5)
- GEOL 445 - Hydrogeology Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)

Field Course Credits: 4-5
Choose one field course from the following:

- GEOL 210 - Introduction to Geologic Field Methods Credits: (4)
- GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- GEOL 493 - Field Methods in Environmental Geology Credits: (4)

Total Credits: 98-104

College and Department Information
Environmental Studies Program
College of the Sciences

## Environmental Sciences BS, Environmental Policy Specialization

## Environmental Sciences Core and Requirements

The major in environmental sciences provides students with an interdisciplinary understanding of the natural science of environmental issues as well as the social science context of the intersection of social, cultural, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers five specialization options in environmental biology, environmental chemistry, environmental geology, environmental geography, and environmental policy.

## Requirements for Major (BS) in Environmental Sciences

The requirements for the major in environment sciences have three parts:

- Foundational courses in supporting disciplines. Some of these courses also serve as prerequisites for courses within the specializations. These foundational courses must be completed before students enroll in ENST 304.
- A core requirement consisting of seven interdisciplinary ENST courses, two upper-level electives, and a culminating experience outside of the classroom (research, internship, service learning, or study abroad).
- A specialization consisting of 6-8 courses that focus on a specific area of study.
- A minimum 2.0 GPA for program credits, earning at least a C-in all ENST core courses.


## Requirements for a double major with BS in environmental sciences

The following double major combinations will have the environmental sciences specialization course requirements waived for the BS degree in environmental sciences; all environmental sciences foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental sciences elective requirements (7-10 credits).

Bachelor Degree (Disciplinary)
Bachelor Degree (Environmental Sciences)

## BS Biology

BS Environmental Sciences: Environmental Biology

BS Chemistry
BS Environmental Sciences: Environmental Chemistry Specialization

BS Environmental Geological Sciences
BS Environmental Sciences: Environmental Geology Specialization

## BA Geography

BS Environmental Sciences: Environmental Geography Specialization

BS Public Policy
BS Environmental Sciences: Environmental Policy Specialization

The interdisciplinary major in public policy (BS) may be combined with the environmental sciences specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental sciences with a specialization in environmental policy will earn a BS degree in public policy and a BS degree in environmental sciences. As some public policy requirements and electives count toward both degrees or majors, the additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental sciences major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed; unique means credits that have not already been used towards another environmental sciences specialization.

## Foundational Courses Credits: 25

Please refer to general and major advisors and ENST advising worksheet(s) to select required and/or requisite courses for the specialization(s).

Biology Credits: (5)
Select one from the following:

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)

Chemistry Credits: (5)

Select one from the following:

- CHEM 101 - Chemistry and Planet Earth Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)

Economics Credits: (5)

Select one from the following:

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)

Geoscience Credits: (5)
Select one from the following:

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103 - Geology of Washington Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- AND GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOG 107 - Our Dynamic Earth Credits: (5)

Social Science Credits: (5)
Select one from the following:

- ANTH 130 - Cultural Worlds Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Core Courses Credits: 33-35

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- OR ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 487 - End-of-Major Capstone Credits: (1)

Culminating Experience Credits: (3-5)
Select one or a combination of the following (internship, research, service-learning, or study abroad experience):

- ENST 490 - Cooperative Education Credits: (1-12)
- ENST 495 - Senior Research Credits: (3-5) OR (other 495 Senior Research)
- UNIV 304 - International Sustainable Development Credits: (5)
- UNIV 309 - Civic Engagement Credits: (2)

Department-Approved Upper-Level Electives: Credits: 8-10

Select two of the following courses. Note: these courses cannot be used to fulfill specialization requirements.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- OR GEOG 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BIOL 377 - Regional Natural History Credits: (2)
- AND BIOL 377LAB - Regional Natural History Credits: (3)
- OR GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- BUS 389 - Sustainable Business Credits: (5)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 455 - Environmental Literature Credits: (3)
- ENST 460 - Environmental Law Credits: (5)
- OR GEOG 445 - Environmental Law Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)


## Total Environmental Sciences Core Credits: 66-70

Environmental Policy Specialization

Note: ECON 201 is required as a foundation course.

Core Policy - Credits: 18
The following courses are required for the specialization:

- ECON 462 - Environmental and Resource Economics Credits: (5)
- ENST 460 - Environmental Law Credits: (5)
- POSC 320 - Public Administration Credits: (5)
- POSC 325 - Introduction to Public Policy Credits: (3)

Research Tools - Credits: 5

Select one of the following courses:

- BUS 221 - Introductory Business Statistics Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)
- SOC 364 - Data Analysis in Sociology Credits: (5)

Department-Approved Electives - Credits: 7-10

Select two of the following courses:

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- BUS 389 - Sustainable Business Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 305 - Introduction to Land Use Planning Credits: (5)
- GEOG 346 - Political Geography Credits: (4)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 381 - Urban Geography Credits: (4)
- GEOG 440 - Ecology and Culture Credits: (4)
- OR ANTH 440 - Ecology and Culture Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 443 - Energy Policy Credits: (5)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOL 380 - Natural Hazards Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- PHIL 306 - Environmental Ethics Credits: (5)
- POSC 318 - Political Parties and Interest Groups Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- POSC 429 - Research Seminar in Public Policy Credits: (3-5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 338 - Political Sociology Credits: (5)
- SOC 380 - Social Ecology Credits: (5)

Specialization Subtotal Credits: 30-33

Total Credits: 96-103

College and Department Information

Environmental Studies Program
College of the Sciences

## Environmental Studies Minor

The environmental studies minor is designed to serve undergraduate education and environmental literacy, with an emphasis on research and community service. The Environmental Studies program's priority is primarily geared towards providing a large number of students with the opportunity to assess the nature, scope, and complexities of present and impending environmental problems. Other objectives include the provision of public education programs on environmental issues and the stimulation of interdisciplinary research on environmental problems. The development of expertise as an environmental specialist requires specialized work and can be pursued through exploring the environmental sciences major.

## Program Requirements

The minor requires that students finish with a minimum 2.0 GPA for the 25-30 program credits; students must also earn at least a C-in ENST courses.

Required Courses Credits: 15

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- ENST 300-Applied Environmental Sciences Credits: (5)
- ENST 303 - Environmental Management Credits: (5)

Upper-Level ENST Electives Credits 7-10

Select two from the following courses:

- ENST 304 - Environmental Methods and Analysis Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- ENST 360 - Environmental Justice Credits: (5)
- ENST 444 - Environmental Policy Formulation Credits: (4)
- ENST 455 - Environmental Literature Credits: (3)

Department-Approved Elective Credits: 3-5

Students participating in the ENST minor are welcome to propose an environment-related upper-division elective course in consultation with the ENST Director. This elective course must be taken in a department outside of the student's major.

Students are encouraged to explore upper-level electives from the ENST specializations and can choose one of the following courses:

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- BUS 389 - Sustainable Business Credits: (5)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ECON 463 - Energy Economics Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOL 302 - Oceans and Atmosphere Credits: (4)
- GEOL 380 - Natural Hazards Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 314 - American Wilderness Philosophy Credits: (5)
- POSC 344 - Environmental Politics Credits: (5)
- PSY 413 - Conservation Psychology Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- SOC 380 - Social Ecology Credits: (5)

Total Credits: 25-30

College and Department Information

Environmental Studies Program College of the Sciences

## Family and Consumer Sciences Department

## College of Education and Professional Studies

Ellensburg
Michaelsen Hall, room 100
Mail Stop 7565
509-963-2766
Fax 509-963-2787
www.cwu.edu/family-consumer
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Duane Dowd, PhD

## Professors

Kimberlee Bartel, PhD, business and marketing, career and technical education director
Robert Perkins, EdD, recreation, tourism and events

## Associate Professors

Duane Dowd, PhD, CLFE, family and child life
Andrea Eklund, MA, apparel, textiles and merchandising
John Hudelson, PhD, global wine studies
Barbara Masberg, PhD, recreation, tourism and events

## Assistant Professors

Amy Claridge, PhD , family and child life
Sarah Feeney, PhD, family and child life
Carla Jellum, PhD, recreation, tourism and events
David Rolfe, PhD, recreation, tourism and events

## Lecturers

Jodi Musser, MA, business and marketing, career and technical education
Katie Tenhulzen, MS, child life
Astrid Vidalon-Shields, MA, apparel, textiles and
merchandising

## Emeritus Professors

Joan Amby, PhD, family studies
Dorothy Chase, PhD, recreation and tourism
Willa Dene Powell, PhD, family and consumer sciences
education
Carolyn Schactler, MS, apparel design
William Vance, EdD, recreation and tourism
Marla Wyatt, PhD, family and consumer sciences education

## Staff

Alex Lange, secretary senior
Ashley Xagoraris, program coordinator

## Program Directors

Amy Claridge, PhD, family and child life program, family resource center director
Andrea Eklund, MA apparel, textiles and merchandising Jodi Musser, MA, business marketing education, family and consumer sciences education, career and technical education John Hudelson, global wine studies
Robert Perkins, EdD, recreation, tourism and events

## Department Information

The Department of Family and Consumer Sciences' programs lead to baccalaureate degrees in apparel, textiles and
merchandising, family and consumer sciences, career and technical education teaching, family studies, global wine studies, and recreation tourism, and events.

Students may complete a minor in any of the following areas: apparel textiles and merchandising as well as apparel design, family and consumer sciences, family and consumer sciences education, family studies, program development, recreation management, tourism management, wine trade and tourism, sustainable tourism, and event planning.

## Admission Policy for Family and Consumer Sciences

- A completed Family and Consumer Sciences (FCS) major application form must be signed by a program advisor after an initial advising meeting. The advisor will submit it to the FCS chair for approval.
- Freshmen are encouraged to apply.
- Students seeking a major or minor should see specific requirements in the appropriate program section of this catalog.
- For information on teacher certification for marketing education or business education, contact Professor Kim Bartel or Professor Rob Perkins.


## Global Wine Studies

This Interdisciplinary Program provides students with a broad understanding of the global wine industry. The program prepares graduates for careers in winery and vineyard management, wine merchandising, wholesale, retail, ecommerce, distribution, marketing, import/export, hospitality, entrepreneurship, consulting, and more.

In the major, students complete 50 major core credits to acquire a broad base of knowledge and skills related to wine, wine business issues, and the global wine industry. Students also complete a minor, 25 to 36 credits, in one of several complementary academic areas. Students will also gain valuable experience by participating in a required international field experience and an internship with a wine-related business, either in the U.S. or abroad.

## Admission Requirements

Students must complete the pre-admission requirements prior to admission into the degree program. An overall minimum 2.5 GPA will be required for admission. Students must fill out an application that includes an essay of motivation and goals. Upon approval of the application, an in-person or telephone interview will be conducted between the advisor for the global wine studies major and the prospective student. Permission of the major advisor is required. Upon admittance to the program students must agree to sign a written statement regarding professional conduct and responsibility.

Student must be at least 21 years old before enrolling in courses that involve tasting wine (GWS 302 - Fundamentals of Viticulture and Enology, GWS 304 - Wine Marketing and Branding, GWS 406 - Professional Wine Analysis, GWS 408 Advanced Sensory Analysis and GWS 410 - Wine Faults.)

## Special Requirements

Students will be expected to spend significant amounts of time outside the classroom on projects, field trips, and assignments. Students must earn a cumulative GPA of 2.7 in the global wine studies core courses.

## Financial Obligations

Because this is a self-supported program: no tuition waiver programs apply. Additional course fees and continuing education tuition apply. Tuition for GWS classes may be higher than regular CWU tuition.

## Recreation and Tourism

The Recreation and Tourism Program (RT) prepares students for positions in one of the top three industries in Washington State and the world's number-one industry. Professional positions are numerous. The following list is a sampling of the types of professional positions currently held by RT graduates: city parks and recreation director, recreation manager, front office and training manager, director of youth programs, guest services manager, and winery marketing manager, among others.

To be admitted to a major or minor in the RT program, students must meet the admission and exit requirements for majors and minors in the Department of Family and Consumer Sciences. To graduate, majors and minors must meet the department graduation requirements.

## Special Requirements

- The elective area will include 14 credits of RT prefix courses. Elective courses must be pre-approved by an advisor prior to registration for course(s).
- Students are required to complete 6 credits of RT 292 Practicum and 12 credits RT 490 Cooperative Education/ Internship. An additional 4 credits of RT 292 or 8 credits of RT 490 may be applied to the elective area with prior advisor approval.
- Students should plan to complete RT 490 Cooperative Education during the summer term.


## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/family-consumer or by contacting the department directly.

## Family and Consumer Sciences Major, BA

The BA in family and consumer sciences comprises a general introduction to the broad areas of family and consumer sciences and, with an appropriate minor, can provide students with a well-rounded preparation for life or for further advanced study. This major requires a minor or double major. Students must have a cumulative GPA of at least 2.3 for full admission to this major and a 2.5 GPA for graduation.

## Required Courses

- ATM 355 - Consumer Textiles Credits: (4)
- FCS 371 - Real World Finance Credits: (3)
- FCS 472 - Life Management Credits: (5)
- FCL 232 - Child Development Credits: (3)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 337 - Human Sexuality Credits: (4)
- FCS 205 - FCS Entry Assessment Credits: (1)
- FCS 405 - FCS Exit Assessment Credits: (1)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- FCS 367 - Family Housing Credits: (3)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)

Choose two of the following: Credits 6

- ATM 280 - Basic Sewing Techniques Credits: (3)
- FCL 235 - Relationships and Personal Development Credits: (3)
- FCS 166 - Applied Creativity Credits: (3)
- FCS 320 - Program Management and Planning Credits: (4)

Total Credits: 51
College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

## Apparel, Textiles and Merchandising Major, BS

The Apparel, Textiles and Merchandising Program is designed to help you gain the knowledge you need to recognize industry trends, analyze market and consumer behavior, and evaluate retail needs in the diverse, fast-paced, and ever-changing fashion industry. Students will build a well-rounded base knowledge about textile and apparel products, merchandising strategies, product development, production processes, trends, consumers and sustainability. Field experiences allow students to network with industry professionals and study abroad opportunities are highly encouraged. Students gain additional hands-on professional experience during summer internships. Quarterly meetings with the faculty advisor assures the student is academically on track to achieve their professional goals.

## Admission Requirements

To be admitted to a major in the Apparel, Textiles and Merchandising Program, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer).

## Graduation Requirements

A minimum grade of C- must be earned in each course counted toward fulfilling major requirements.

Required Courses Credits: 67

- ATM 251 - Style Principles: Body to Store Credits: (3)
- ATM 270 - Digital Presentation Techniques Credits: (4)
- ATM 280 - Basic Sewing Techniques Credits: (3)
- ATM 281 - Socio-cultural Aspects of Apparel Credits: (4)
- ATM 285 - Buying and Merchandising Math Credits: (4)
- ATM 289 - Northwest Field Experience in Apparel and Textiles Credits: (3)
- ATM 301 - Introduction to the Fashion Industry Credits: (4)
- ATM 353 - Apparel Manufacturing Credits: (5)
- ATM 355 - Consumer Textiles Credits: (4)
- ATM 379 - ATM Internship Planning Credits: (1)
- ATM 381 - Fashion Show Production Credits: (2)
- ATM 389 - Fashion Trend Analysis Credits: (3)
- ATM 452 - History of Fashion Credits: (4)
- ATM 487 - Fashion Merchandising Exit Assessment Credits: (1)
- ATM 489 - Merchandise Buying and Planning Credits: (4)
- ATM 492 - Apparel, Textiles and Merchandising Practicum Credits: (1-10) (Must be taken for 8 credits.)
- RTE 419-Applied Research and Evaluation Credits: (3)
- IT 258 - Spreadsheet Applications Credits: (3)
- RMT 330 - Principles of Retailing Credits: (4)

Department-Approved Electives - Credits 12
Total Credits: 79

College and Department Information
Family and Consumer Sciences Department College of Education and Professional Studies

## Business and Marketing Education Major, BS

This bachelor of sciences teaching major satisfies the endorsement for business and marketing education teaching for career and technical education. It is designed for students who are seeking teaching careers in business and marketing education at the secondary grade levels (7-12). The coursework provides experiences in the business and marketing education content areas and instructional pedagogy including field experiences that are designed to prepare teacher certification and content endorsement. Students in the business and marketing education major must be admitted to the Teacher Certification Program and complete the Professional Education Program sequence coursework as part of the Teacher Certification Program.

Program Requirements and Pre-admission Requirements
Students wishing to obtain a teaching certificate in business and marketing education will:

- Complete the business and marketing career and technical education teaching major
- Successfully complete CTE 310 before being fully admitted to the major
- Have a university-level cumulative GPA of at least 2.3 for full admission to this major and a 3.0 minimum cumulative GPA in the major to exit the program and to graduate from CWU with teacher certification
- Earn a minimum grade of C in each course counted toward fulfilling major requirements
- Apply, be accepted into, and complete the Teacher Certification Program
- Student teach in a CTE -approved program
- Hold a valid first aid card with CPR
- Complete 2,000 hours of paid work experience in the last six years
- Provide documentation of occupational safety

Required to take the Professional Education Program for 50 credits.

Required Courses

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- BME 346 - Basic Accounting for Business and Marketing Education Credits: (5)
- BME 450-Curriculum Development for Business and Marketing Education Credits: (4)
- BME 451 - Methods and Materials for Teaching Information Technology Credits: (3)
- BME 452 - Methods and Materials for Teaching Basic Business and Marketing Credits: (3)
- BUS 241 - Legal Environment of Business Credits: (5)
- CS 101 - Computer Basics Credits: (4)
- OR IT 101 - Computer Applications Credits: (3)
- CTE 310 - Introduction to Career and Technical Education Credits: (3)
- CTE 410 - Career and Technical Education School to Work Programs Credits: (4)
- CTE 460 - Business and Marketing Education Exit Assessment Credits: (4)
- ECON 101 - Economic Issues Credits: (5)
- FCS 220 - Leadership in Human Development Credits: (4)
- FCS 320 - Program Management and Planning Credits: (4)
- FCS 379 - Professional Development and Internship Planning Credits: (3)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- RTE 420 - Program Promotion and Advertising Credits: (5)

[^6]Professional Education Program

Total Credits: 117-118

College and Department Information
Family and Consumer Sciences Department
College of Education and Professional Studies

# Family and Child Life Major BS, Child Life Specialization 

Family and Child Life Core

The bachelor of science family and child life major is an interdisciplinary study of interpersonal and family relationships and their impact on child development. Family and child life majors are actively engaged in community involvement and practical application of knowledge.

Family and child life majors in both specializations must complete a practicum experience that includes 360 total hours ( 12 academic credits) of field related service within the community. Students are encouraged to apply for the major early in their academic careers to allow for proper planning and placement in the family and child life practicum.

Students wishing to declare a major in family and child life must be incoming freshman or have a cumulative GPA of 2.7. Family and child life majors must maintain a cumulative GPA of 2.7 or higher to remain in the major and must earn a " C " or higher in all courses used to satisfy the family and child life major.

## Family and Child Life Core Requirements

- FCL 101 - Skills for Marriage and Intimate Relationships Credits: (4)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 235 - Relationships and Personal Development Credits: (3)
- FCL 320 - Theories of Family Dynamics Credits: (4)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 344 - Foundations of Marriage and Family Therapy Credits: (4)
- FCL 405 - Professional Obligations and Responsibilities Credits: (4)
- FCL 419 - Research in Family and Child Life Credits: (4)
- FCL 434 - Diversity in Families Credits: (4)
- FCL 492 - Family and Child Life Practicum Credits: (1-6) (Must be taken for a total of 12 credits.)
- FCL 495 - Undergraduate Research Credits: (1-6) (Must be taken for 1 credit)

Child Life Specialization
The child life specialization applies child development theory to the practice of helping children and families through traumatic events, specifically related to hospitalization. The curriculum meets the recommendations of the Association of Child Life Professionals and includes several courses taught by Certified Child Life Specialists. Graduates are well prepared for career opportunities that involve work with children, or to pursue a child life internship and child life graduate study required to become a certified child life specialist.

## Required Courses - Credits: 34

- FCL 232 - Child Development Credits: (3)
- FCL 438 - Attachment Theory and Practice Credits: (4)
- FCL 339 - Adolescence and Emerging Adulthood Credits: (4)
- FCL 414 - Coping with Grief and Loss Credits: (4)
- FCL 415 - Therapeutic Play Credits: (4)
- FCL 416 - Child Life I: Child Life Scope of Practice Credits: (4)
- FCL 417 - Pediatric Diagnoses and Medical Terminology Credits: (4)
- FCL 418 - Child Life II: Impact of Child Hospitalization Credits: (4)
- FCL 432 - Theories in Child Development Credits: (3)

Department-Approved Electives - Credits: 11

- ANTH 353 - Childhood and Culture Credits: (4)
- FCL 310 - Family Issues in the 21st Century Credits: (4)
- FCL 333 - Culture and Marriage Credits: (4)
- FCL 334 - Family Problems and Mediation Credits: (4)
- FCL 335 - Divorce and Remarriage Credits: (3)
- FCL 337 - Human Sexuality Credits: (4)
- FCL 403 - Family Communication Credits: (4)
- FCL 435 - Family Gerontology Credits: (4)
- FCL 439 - Families and Public Policy Credits: (4)
- FCL 440 - Teaching for Family and Child Life Credits: (1-3) (Repeatable up to 6 credits)
- PHIL 308 - Medical Ethics Credits: (5)
- SOC 320 - Death and Dying Credits: (5)

Total Specialization Credits: 45
Total Credits: 93

College and Department Information
Family and Consumer Sciences Department
College of Education and Professional Studies

# Family and Child Life Major BS, Family Science Specialization 

Family and Child Life Core

The bachelor of science family and child life major is an interdisciplinary study of interpersonal and family relationships and their impact on child development. Family and child life majors are actively engaged in community involvement and practical application of knowledge.

Family and child life majors in both specializations must complete a practicum experience that includes 360 total hours ( 12 academic credits) of field related service within the community. Students are encouraged to apply for the major early in their academic careers to allow for proper planning and placement in the family and child life practicum.

Students wishing to declare a major in family and child life must be incoming freshman or have a cumulative GPA of 2.7. Family and child life majors must maintain a cumulative GPA of 2.7 or higher to remain in the major and must earn a " C " or higher in all courses used to satisfy the family and child life major.

## Family and Child Life Core Requirements

- FCL 101 - Skills for Marriage and Intimate Relationships Credits: (4)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 235 - Relationships and Personal Development Credits: (3)
- FCL 320 - Theories of Family Dynamics Credits: (4)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 344 - Foundations of Marriage and Family Therapy Credits: (4)
- FCL 405 - Professional Obligations and Responsibilities Credits: (4)
- FCL 419 - Research in Family and Child Life Credits: (4)
- FCL 434 - Diversity in Families Credits: (4)
- FCL 492 - Family and Child Life Practicum Credits: (1-6) (Must be taken for a total of 12 credits.)
- FCL 495 - Undergraduate Research Credits: (1-6) (Must be taken for 1 credit)

Total Core Requirements Credits: 48

Family Science Specialization
Students in the family science specialization are well prepared for career opportunities in family service agencies, parent education programs, family counseling centers, other family life education settings, or advanced study in family relations. All family science specialization graduates are eligible to become Certified Family Life Educators by the National Council on Family Relations.

Required Courses - Credits: 19

- FCS 371 - Real World Finance Credits: (3)
- FCL 337 - Human Sexuality Credits: (4)
- FCL 439 - Families and Public Policy Credits: (4)
- PSY 313 - Developmental Psychology Credits: (4)
- FCL 433 - Family Life Education Credits: (4)

Department-Approved Electives Credits: 13

- FCL 232 - Child Development Credits: (3)
- FCL 310 - Family Issues in the 21st Century Credits: (4)
- FCL 333 - Culture and Marriage Credits: (4)
- FCL 334 - Family Problems and Mediation Credits: (4)
- FCL 335 - Divorce and Remarriage Credits: (3)
- FCL 339 - Adolescence and Emerging Adulthood Credits: (4)
- FCL 403 - Family Communication Credits: (4)
- FCL 414 - Coping with Grief and Loss Credits: (4)
- FCL 415 - Therapeutic Play Credits: (4)
- FCL 416 - Child Life I: Child Life Scope of Practice Credits: (4)
- FCL 417 - Pediatric Diagnoses and Medical Terminology Credits: (4)
- FCL 418 - Child Life II: Impact of Child Hospitalization Credits: (4)
- FCL 432 - Theories in Child Development Credits: (3)
- FCL 438 - Attachment Theory and Practice Credits: (4)
- FCL 440 - Teaching for Family and Child Life Credits: (1-3) (May be repeated up to 6 credits.)

Total Specialization Credits: 32
Total Credits: 80

College and Department Information

Family and Consumer Sciences Department
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## Family and Consumer Sciences Career and Technical Education Teaching Major, BS


#### Abstract

This bachelor of sciences teaching major satisfies the endorsement for family and consumer sciences teaching for career and technical education.


## Special requirements:

Students wishing to obtain a teaching certificate in family and consumer sciences education will:

- Complete the family and consumer sciences career and technical education teaching major
- Successfully complete FCSG 205 before being fully admitted to the major
- Have a university-level cumulative GPA of at least 2.3 for full admission to this major and a 3.0 minimum cumulative GPA in the major to exit the program and to graduate from CWU with teacher certification
- Earn a grade of C or higher in each course counted toward fulfilling major requirements
- Apply, be accepted into, and complete the Teacher Certification Program
- Student teach in a CTE-approved program
- Hold a valid first aid card with CPR
- Complete 2,000 hours of paid work experience in the last six years
- Provide documentation of occupational safety


## Required Courses

- ATM 355 - Consumer Textiles Credits: (4)
- CTE 410 - Career and Technical Education School to Work Programs Credits: (4)
- CTE 422 - Impact of Education Reform on Career and Technical Education Credits: (2)
- FCL 232 - Child Development Credits: (3)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 337 - Human Sexuality Credits: (4)
- FCS 371 - Real World Finance Credits: (3)
- FCS 472 - Life Management Credits: (5)
- FCSE 326 - Curriculum in Career and Technical Education for Family and Consumer Sciences Credits: (4)
- FCSE 426 - Methods and Materials of Teaching Family and Consumer Sciences Credits: (3)
- FCSE 451 - Methods and Materials of Teaching FCS Laboratory Course Content Credits: (3)
- FCS 205 - FCS Entry Assessment Credits: (1)
- FCS 405 - FCS Exit Assessment Credits: (1)
- FCS 367 - Family Housing Credits: (3)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)

Choose two of the following - Credits: 6-7

- ATM 280 - Basic Sewing Techniques Credits: (3)
- FCL 235 - Relationships and Personal Development Credits: (3)
- FCS 166 - Applied Creativity Credits: (3)
- PSY 447 - Psychology of Adolescence Credits: (4)

Total Credits: 67-68

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 117-118

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## Global Wine Trade, BS

This Interdisciplinary Program provides students with a broad understanding of the global wine industry. The program prepares graduates for careers in winery and vineyard management, wine merchandising, wholesale, retail, ecommerce, distribution, marketing, import/export, hospitality, entrepreneurship, consulting, and more.

In the major, students complete 52 major core credits to acquire a broad base of knowledge and skills related to wine, wine business issues, and the global wine industry. Students also complete a minor in one of several complementary academic areas. Students will also gain valuable experience by participating in a required international field experience and an internship with a wine-related business, either in the U.S. or abroad.

## Admission Requirements

Students must complete the pre-admission requirements prior to admission into the degree program. An overall minimum 2.5 GPA will be required for admission. Students must fill out an application that includes an essay of motivation and goals. Upon approval of the application, an in-person or telephone interview will be conducted between the advisor for the global wine studies major and the prospective student. Permission of the major advisor is required. Upon admittance to the program students must agree to sign a written statement regarding professional conduct and responsibility.

Students must be 18 years of age to apply for the major. It should be understood that all classroom courses involving tasting will require students to taste and spit (Washington State legislation RCW 66.20.010 (12) a-f).

## Course Requirements

Students will be expected to spend significant amounts of time outside the classroom on projects, field trips, and assignments. Students must earn a cumulative GPA of 2.7 in the global wine studies core courses.

## Tuition

Global Wine Trade (GWT) course tuition is the same as the regular CWU tuition for undergraduates. Some courses have lab fees to cover additional costs.

Pre-admission Requirements (15 credits)

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- GEOG 101 - World Regional Geography Credits: (5)

Choose one of the following courses (5 credits)

- HUM 101 - Exploring Cultures in the Ancient World Credits: (5)
- HUM 102 - Exploring Cultures From 16th through 19th Centuries Credits: (5)
- HUM 103 - Exploring Cultures in Modern and Contemporary Societies Credits: (5)

Global Wine Studies Core Courses (52 credits)

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- GWT 302 - Fundamentals of Viticulture and Enology Credits: (4)
- GWT 303 - Major Wine Regions of the World Credits: (4)
- GWT 304 - Wine Marketing and Branding Credits: (4)
- GWT 402 - Issues in Viticulture and Enology Credits: (4)
- GWT 403 - The Global Wine Industry Credits: (4)
- GWT 404 - The International Wine Trade Credits: (5)
- GWT 406 - Professional Wine Analysis Credits: (3)
- GWT 408 - Advanced Sensory Analysis Credits: (4)
- GWT 410 - Wine Faults Credits: (3)
- GWT 412 - Advanced Wine Regions Credits: (3)
- GWT 490 - Cooperative Education Credits: (1-12) (6 credits required)
- GWT 492 - Field Experience Credits: (3) (study abroad)

Total Credits: 67

Select a minor through advisement with GWS faculty.

Department and College Information

Family and Consumer Sciences Department
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## Recreation, Tourism and Events BS, Event Management Specialization

Recreation, Tourism and Events Core

The Recreation, Tourism and Events Program (RTE) prepares students for positions in one of the top three industries in Washington state and the world's number-one industry. Professional positions are numerous. The following list is a sampling of the types of professional positions currently held by RTE graduates: city parks and recreation director, recreation manager, front office and training manager, director of youth programs, guest services manager, and winery marketing manager, general manager, event and meeting planner, marketer,
entrepreneur, among others.

## Admission Requirements

To be admitted to a major or minor in Recreation Tourism and Events, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer).

## Program Requirements

A minimum grade of C- must be earned in each course counted toward fulfilling major and minor requirements.

Students should plan to complete their Senior Practicum education during the summer term.

Elective courses must be pre-approved by an advisor prior to registration for course(s). The elective UNIV 304 International Sustainable Development ( 5 credits) is an on-line course tied to an international travel experience in which the student volunteers through GIVE in community projects in Nicaragua, Tanzania, or Thailand. See UNIV 304 in course lists for full description.

## Recreation, Tourism and Events Core Requirements

- FCS 220 - Leadership in Human Development Credits: (4)
- RTE 419 - Applied Research and Evaluation Credits: (3)
- RTE 201 - Introduction to Recreation and Tourism Credits: (3)
- RTE 210 - Student Leadership Credits: (1-3) (Must be taken for 2 credits.)
- OR RTE 294 - RTE Participatory Leadership Credits: (1-3) (Must be taken for 2 credits.)
- RTE 230 - Program and Event Budgeting Credits: (2)
- RTE 292 - Practicum Credits: (1-3) (Must be taken for 4 credits.)
- RTE 351 - On-Line Strategies for RTE Credits: (3)
- RTE 355 - Sustainable Tourism: Contemporary Issues Credits: (2)
- RTE 420 - Program Promotion and Advertising Credits: (5)
- RTE 484 - Legal Liability and Risk Management Credits: (4)
- RTE 492 - Senior Practicum Credits: (1-10) (Must be taken for 10 credits.)

Total Core Credits: 42

Event Management Specialization
The event management specialization prepares students for positions in special events coordination and operation, lodging sales and marketing, convention centers, destination marketing organizations, tourism planning, recreation and sports centers, and many others.

The Recreation, Tourism and Events Program (RTE) prepares students for positions in one of the top three industries in Washington State and the world's number-one industry. Professional positions are numerous.

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- OR BME 146 - Basic Accounting Credits: (5)
- OR RTE 430-Grants, Sponsorship, and Fundraising for RTE Credits: (5)
- FCS 379 - Professional Development and Internship Planning Credits: (3)
- HRM 381-Management of Human Resources Credits: (5)
- RTE 331 - Sustainable Events: Best Practices Credits: (3)
- RTE 373D - Convention and Meeting Management Credits: (5)
- RTE 374 - Festivals and Events Credits: (4)
- RTE 405 - Hospitality Catering Credits: (3)
- RTE 485 - Events Administration Credits: (4)

Department-Approved Electives - Credits: 15

Choose from the following courses:

- COM 312 - Introduction to Non-Profit Leadership Credits: (4)
- COM 345 - Business and Professional Speaking Credits: (4)
- RTE 222 - Recreation Programming and Activities Credits: (3)
- RTE 337 - Tour and Interpretive Program Development Credits: (3)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 373E - Resort Management Credits: (5)
- RTE 377 - The Gaming and Casino Industry Credits: (3)
- RTE 379 - Cruise Line Industry Credits: (3)
- RTE 452 - Regional Wine Tourism Credits: (4)
- RTE 498 - Special Topics Credits: (1-6)
- UNIV 304 - International Sustainable Development Credits: (5)
- OR, any other advisor approved RTE course.

Total Specialization Credits: 47
Total Credits: 89

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## Recreation, Tourism and Events BS, Recreation Management Specialization

The Recreation, Tourism and Events Program (RTE) prepares students for positions in one of the top three industries in Washington state and the world's number-one industry. Professional positions are numerous. The following list is a sampling of the types of professional positions currently held by RTE graduates: city parks and recreation director, recreation manager, front office and training manager, director of youth programs, guest services manager, and winery marketing manager, general manager, event and meeting planner, marketer, entrepreneur, among others.

## Admission Requirements

To be admitted to a major or minor in Recreation Tourism and Events, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer).

## Program Requirements

A minimum grade of C - must be earned in each course counted toward fulfilling major and minor requirements.

Students should plan to complete their Senior Practicum education during the summer term.

Elective courses must be pre-approved by an advisor prior to registration for course(s). The elective UNIV 304 International Sustainable Development ( 5 credits) is an on-line course tied to an international travel experience in which the student volunteers through GIVE in community projects in Nicaragua, Tanzania, or Thailand. See UNIV 304 in course lists for full description.

Recreation, Tourism and Events Core Requirements

- FCS 220 - Leadership in Human Development Credits: (4)
- RTE 419 - Applied Research and Evaluation Credits: (3)
- RTE 201 - Introduction to Recreation and Tourism Credits: (3)
- RTE 210 - Student Leadership Credits: (1-3) (Must be taken for 2 credits.)
- OR RTE 294 - RTE Participatory Leadership Credits: (1-3) (Must be taken for 2 credits.)
- RTE 230 - Program and Event Budgeting Credits: (2)
- RTE 292 - Practicum Credits: (1-3) (Must be taken for 4 credits.)
- RTE 351 - On-Line Strategies for RTE Credits: (3)
- RTE 355 - Sustainable Tourism: Contemporary Issues Credits: (2)
- RTE 420 - Program Promotion and Advertising Credits: (5)
- RTE 484 - Legal Liability and Risk Management Credits: (4)
- RTE 492 - Senior Practicum Credits: (1-10) (Must be taken for 10 credits.)

Total Core Credits: 42
Recreation Management Specialization

[^7]The Recreation Management specialization prepares students for entry-level supervisory and managerial positions with government parks and recreation departments, YMCAs and Boys and Girls Clubs, armed forces recreation, university recreation and intramural sports, camping and outdoor recreation. In addition, entrepreneurial skills are developed for those interested in starting their own business. The Recreation, Tourism and Events Program (RTE) prepares students for positions in one of the top three industries in Washington State and the world's number-one industry. Professional positions are numerous.

## Program Requirements

Students in the recreation management specialization must also be admitted to the Adventure Leadership minor or Entrepreneurship minor to complete this program.

Required Courses - Credits: 27

- RTE 300 - Challenge Course Leadership Credits: (4)
- RTE 309 - Facility Planning and Sustainable Design Credits: (4)
- RTE 333 - Outdoor Adventures in Public Lands Credits: (4) (RTE 333 is offered only during the summer quarter as a 4-day trip.)
- RTE 382 - Community Recreation Credits: (3)
- RTE 430 - Grants, Sponsorship, and Fundraising for RTE Credits: (5)
- RTE 487 - Outdoor Recreation Issues Credits: (3)
- RTE 488 - Recreation Management Credits: (4)

Department-Approved Electives - Credits: 3-5
Choose from the following courses:

- BME 146 - Basic Accounting Credits: (5)
- RTE 150 - Experience Leadership Project Credits: (1)
- RTE 360 - Outdoor Survival Credits: (3)
- RTE 361 - Technology for Recreation and Tourism Credits: (2)
- RTE 374 - Festivals and Events Credits: (4)
- UNIV 304 - International Sustainable Development Credits: (5)

Total Specialization Credits: 30-32

Total Credits: 72-74

Total Credits with Minor: 92-101
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# Recreation, Tourism and Events BS, Tourism Management Specialization 

Recreation, Tourism and Events Core

The Recreation, Tourism and Events Program (RTE) prepares students for positions in one of the top three industries in Washington state and the world's number-one industry. Professional positions are numerous. The following list is a sampling of the types of professional positions currently held by RTE graduates: city parks and recreation director, recreation manager, front office and training manager, director of youth programs, guest services manager, and winery marketing manager, general manager, event and meeting planner, marketer, entrepreneur, among others.

## Admission Requirements

To be admitted to a major or minor in Recreation Tourism and Events, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer).

## Program Requirements

A minimum grade of C - must be earned in each course counted toward fulfilling major and minor requirements.

Students should plan to complete their Senior Practicum education during the summer term.

Elective courses must be pre-approved by an advisor prior to registration for course(s). The elective UNIV 304 International Sustainable Development ( 5 credits) is an on-line course tied to an international travel experience in which the student volunteers through GIVE in community projects in Nicaragua, Tanzania, or Thailand. See UNIV 304 in course lists for full description.

Recreation, Tourism and Events Core Requirements

- FCS 220 - Leadership in Human Development Credits: (4)
- RTE 419 - Applied Research and Evaluation Credits: (3)
- RTE 201 - Introduction to Recreation and Tourism Credits: (3)
- RTE 210 - Student Leadership Credits: (1-3) (Must be taken for 2 credits.)
- OR RTE 294 - RTE Participatory Leadership Credits: (1-3) (Must be taken for 2 credits.)
- RTE 230 - Program and Event Budgeting Credits: (2)
- RTE 292 - Practicum Credits: (1-3) (Must be taken for 4 credits.)
- RTE 351 - On-Line Strategies for RTE Credits: (3)
- RTE 355 - Sustainable Tourism: Contemporary Issues Credits: (2)
- RTE 420 - Program Promotion and Advertising Credits: (5)
- RTE 484 - Legal Liability and Risk Management Credits: (4)
- RTE 492 - Senior Practicum Credits: (1-10) (Must be taken for 10 credits.)

Total Core Credits: 42

Tourism Management Specialization
The student with a specialization in tourism management may choose a career in travel- and tourism-related industries, including hotels, resorts, convention centers, cruise lines, airlines, visitor centers, casinos, tour companies, meeting and event planning, and others.

Required Courses Credits: 31

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- OR BME 146 - Basic Accounting Credits: (5)
- FCS 379 - Professional Development and Internship Planning Credits: (3)
- RTE 272 - Lodging Operations I Credits: (3)
- RTE 331 - Sustainable Events: Best Practices Credits: (3)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 373D - Convention and Meeting Management Credits: (5)
- RTE 373E - Resort Management Credits: (5)
- RTE 480-Tourism Administration Credits: (4)

Department-Approved Electives Credits: 17

Choose from the following courses:

- HRM 381- Management of Human Resources Credits: (5)
- RTE 222 - Recreation Programming and Activities Credits: (3)
- RTE 337- Tour and Interpretive Program Development Credits: (3)
- RTE 374 - Festivals and Events Credits: (4)
- RTE 379 - Cruise Line Industry Credits: (3)
- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 405 - Hospitality Catering Credits: (3)
- RTE 452 - Regional Wine Tourism Credits: (4)
- RTE 454 - Wine Tourism Applications Credits: (4)
- UNIV 304 - International Sustainable Development Credits: (5)

Total Specialization Credits: 48

Total Credits: 90

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## Adventure Leadership Minor

Students pursuing this minor will discuss and practice leadership theories to improve their problem-solving, critical thinking, group development, communication, and social change skills related to the field of recreation. Students become both competent with technical skills and acquire techniques to effectively lead people in experiential education and outdoor recreation.

Required Courses Credits: 18

- RTE 222 - Recreation Programming and Activities Credits: (3)
- RTE 292 - Practicum Credits: (1-3) (Must take for 4 credits)
- RTE 340 - Introduction to Adventure Programming Credits: (3)
- OR RTE 431 - Recreation Administration of Retreats and Camps Credits: (3)
- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 487 - Outdoor Recreation Issues Credits: (3)
- RTE 492 - Senior Practicum Credits: (1-10) (Must take for 2 credits)

Department-Approved Electives Credits: 2

Complete two courses from the following for two credits.

- PE 118 - Climbing Wall to Rock Credits: (1)
- PEID 137 - Hiking and Orienteering Credits: (1)
- RTE 161 - Challenge Course Experience Credits: (1)
- RTE 162 - Backpacking Credits: (1)
- RTE 163 - Introduction to White Water Kayaking Credits: (1)

Total Credits: 20

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## Apparel Design Minor

A minor in apparel design is administered jointly by the Apparel, Textiles and Merchandising Program and theatre arts department. It is designed to enable students with career interests in this field to gain experience in the competency areas expected of apparel designers. This minor allows the student to learn to apply the basic principles of design and creativity in developing apparel. Students will study the application of artistic and creative design elements, selection, and use of fabrics and textiles, and the techniques for transforming design concepts into garments in order to create a final sale-able product for a target market.

To be admitted to a minor in Apparel Design, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer). A minimum grade of C - must be earned in each course counted toward fulfilling major and minor requirements.

## Required Courses

- ATM 270 - Digital Presentation Techniques Credits: (4)
- ATM 280 - Basic Sewing Techniques Credits: (3)
- OR TH 261 - Costume Technology Credits: (3)
- ATM 301 - Introduction to the Fashion Industry Credits: (4)
- ATM 355 - Consumer Textiles Credits: (4)
- ATM 388 - Advanced Fashion Design Credits: (3)
- OR TH 361 - Stage Costuming Credits: (3)
- ATM 389 - Fashion Trend Analysis Credits: (3)
- ATM 488 - Fashion Line Development Credits: (3)
- TH 140 - Introduction to Theatre Design Credits: (3)
- TH 461 - Costume Design Credits: (4)
- TH 465 - Costume and Fashion Drawing Credits: (3)

Total Credits: 34

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## Apparel, Textiles and Merchandising Minor

The minor in apparel, textiles and merchandising is designed for those students wanting some expertise in the apparel industry to strengthen their majors in business, marketing, communication, advertising, graphic design, theatre arts, event planning, accounting, retail management, etc. Students are exposed to various aspects of merchandising, trend analysis, textiles, buying, sustainability, and fashion event planning. Completing the minor will contribute to future career competitiveness and broaden opportunities.

## Admission Requirements

To be admitted to a minor in Apparel, Textiles and Merchandising, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer).

## Graduation Requirements

A minimum grade of C- must be earned in each course counted toward fulfilling minor requirements.

## Required Courses

- ATM 270 - Digital Presentation Techniques Credits: (4)
- ATM 281 - Socio-cultural Aspects of Apparel Credits: (4)
- ATM 301 - Introduction to the Fashion Industry Credits: (4)
- ATM 355 - Consumer Textiles Credits: (4)
- ATM 381 - Fashion Show Production Credits: (2)
- ATM 389 - Fashion Trend Analysis Credits: (3)

Total Credits: 21

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## Child Development Minor

A minor in child development is designed for students who want some expertise in child development to improve their ability to work with children or parents in their chosen profession. Students majoring in psychology, early childhood education, special education, sociology, social services, public health, law and justice, physical and health education, and recreation and tourism may benefit from the child development minor. Students in the minor will learn about theories of child development; cutting-edge research about how children develop in multiple domains, with a focus on how development occurs in the context of family, community, and culture; and skills for practical application of child development. Completing the minor will enhance students' competitiveness for jobs involving interaction with children in a variety of disciplines.

## Pre-Admission Requirements

Students wishing to declare a minor in Child Development must be incoming freshmen, transfer students, or have a cumulative GPA of 2.5. Child Development minors must maintain a cumulative GPA of 2.5 or higher to remain in the minor.

## Required Courses

- FCL 232 - Child Development Credits: (3)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 438 - Attachment Theory and Practice Credits: (4)

Department-approved Electives Credits: 15-16

- FCL 339 - Adolescence and Emerging Adulthood Credits: (4)
- FCL 414 - Coping with Grief and Loss Credits: (4)
- FCL 415 - Therapeutic Play Credits: (4)
- FCL 416 - Child Life I: Child Life Scope of Practice Credits: (4)
- FCL 417 - Pediatric Diagnoses and Medical Terminology Credits: (4)
- FCL 418 - Child Life II: Impact of Child Hospitalization Credits: (4)
- FCL 432 - Theories in Child Development Credits: (3)

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## Event Management Minor

This minor will give the student a solid understanding of special event programming and management. It will also provide experiential learning opportunities through event production. Students in various majors including global wine studies, business, the arts, communication and others may find this minor a beneficial supplement.

## Requirements

To be admitted to a major or minor in Recreation Tourism and Events, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer). A minimum grade of C- must be earned course counted toward fulfilling major and minor requirements.

Required Courses

- RTE 230 - Program and Event Budgeting Credits: (2)
- RTE 373D - Convention and Meeting Management Credits: (5)
- RTE 374 - Festivals and Events Credits: (4)
- RTE 405 - Hospitality Catering Credits: (3)
- RTE 484 - Legal Liability and Risk Management Credits: (4)
- RTE 492 - Senior Practicum Credits: (1-10) (Must be taken for 4 credits.)

Department-approved electives Credits: 3-5

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 312 - Introduction to Non-Profit Leadership Credits: (4)
- COM 345 - Business and Professional Speaking Credits: (4)
- FCS 320 - Program Management and Planning Credits: (4)
- GWT 452 - Regional Wine Tourism Credits: (4)
- MKT 360 - Principles of Marketing Credits: (5)
- RTE 222 - Recreation Programming and Activities Credits: (3)
- RTE 272 - Lodging Operations I Credits: (3)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 373E - Resort Management Credits: (5)
- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 431 - Recreation Administration of Retreats and Camps Credits: (3)
- RTE 452 - Regional Wine Tourism Credits: (4)
- UNIV 304 - International Sustainable Development Credits: (5)

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## Family and Consumer Sciences Education Minor

This minor does not meet endorsement requirements to teach family and consumer sciences.

Required Courses

- FCS 371 - Real World Finance Credits: (3)
- FCSE 426 - Methods and Materials of Teaching Family and Consumer Sciences Credits: (3)
- FCL 232 - Child Development Credits: (3)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 336 - Parent Education and Guidance Credits: (4)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)

Total Credits: 26

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## Family and Consumer Sciences Minor

In consultation with a faculty advisor, students select a minimum of 20 credits of coursework as appropriate to individual interests and professional goals. The planned course of study must have the signature of both the student and the faculty advisor before submission to the department chair for approval.

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## Family Science Minor

Required Courses

- FCL 101 - Skills for Marriage and Intimate Relationships Credits: (4)
- FCL 234 - Contemporary Families Credits: (4)
- FCL 235 - Relationships and Personal Development Credits: (3)
- FCL 336 - Parent Education and Guidance Credits: (4)

FS Elective Courses: Credits 10

- Any courses with a FCL prefix.

Total Credits: 25

College and Department Information

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## Physical Activity and Recreation Programming Minor (FCS)

Physical Activity and Recreation Programming Minor Core

## Program Directors

Heidi Henschel Pellett, EdD, physical education and school health
Barbara Masberg, PhD, recreation and tourism

## Program Advisors

Debra D'Acquisto, MA, physical activity
Robert Perkins, EdD, recreation and tourism
This interdisciplinary physical activity and recreation programming minor is designed for students who want to instruct and direct activities in various settings, such as, parks and recreation, nonprofit organizations, cruise lines, resorts, and other active lifestyle organizations.

## Admission Requirements

Applications are accepted throughout the academic year. To be admitted to the minor, all students must have a cumulative grade point average of a 2.75 . For the application procedure, contact a program director in Physical Education and School Health or Recreation and Tourism to complete a specific application form. All courses in the minor require a grade of a C or higher.

## Required Courses

- PESH 341 - Characteristics of Effective Physical Education Teaching Credits: (3)
- PESH 343 - Pedagogical Application of Teaching Styles and Systematic Reflection Credits: (3)
- PESH 356 - Teaching Lifelong Physical Activity Pursuits Credits: (3)
- PESH 456 - Facilitating and Leading Adventure Activities in the Schools Credits: (2)
- RTE 484 - Legal Liability and Risk Management Credits: (4)

Select from one of the following Credits: (3)

- RTE 222 - Recreation Programming and Activities Credits: (3)
- OR Choose three (3) Physical Activity Courses from the following categories:
PEID (1), PEF (1), PEAQ (1) PETS (1), PED (1)

Select from one of the following Credits: (3-4)

- FCS 220 - Leadership in Human Development Credits: (4)
- PESH 330 - Positive Youth Development in Physical Activity Credits: (3)

Select from one of the following Credits: (2-4)

- RTE 293 - Outdoor Leadership Training Credits: (2)
- RTE 300 - Challenge Course Leadership Credits: (4)
- RTE 360 - Outdoor Survival Credits: (3)
- RTE 431 - Recreation Administration of Retreats and Camps Credits: (3)

Select from one the following Credits: (3-5)

- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 382 - Community Recreation Credits: (3)
- RTE 487 - Outdoor Recreation Issues Credits: (3)

Choose certifications totaling Credits: (3)

- EMS 245 - Advanced First Aid and Emergency Response Credits: (3)
- PE 115 - Beginning Climbing Credits: (1)
- PE 116 - Intermediate Climbing Credits: (1)
- PE 220 - Climbing Wall Instructor Credits: (2)
- PEAQ 221 - Lifeguard Training Credits: (3)
- PEAQ 320 - Water Safety Instructor Credits: (3)

Total Credits: 29-34

College and Department Information

Family and Consumer Sciences Department College of Education and Professional Studies

## Program Development Minor

> Students take a series of courses addressing the strategies and techniques of planning and managing a program for events, training, education, seminars, entertainment, or meetings.

## Required Courses

- FCS 220 - Leadership in Human Development Credits: (4)
- RTE 230 - Program and Event Budgeting Credits: (2)
- FCS 320 - Program Management and Planning Credits: (4)
- FCS 379 - Professional Development and Internship Planning Credits: (3)
- RTE 419 - Applied Research and Evaluation Credits: (3)
- RTE 420 - Program Promotion and Advertising Credits: (5)

Choose one course from the following: Credits: 2-3

- EDCS 509 - Civic Engagement Credits: (3)
- UNIV 309 - Civic Engagement Credits: (2)
- FCS 490 - Cooperative Education Credits: (1-12) Credits: 2

Total Credits: 23-24

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

## Sustainable Tourism Minor

The sustainable tourism minor prepares students for careers related to the impacts and opportunities associated with the economic, cultural, and environmental dimensions of tourism.

## Required Courses Credits: 17

- ENST 201 - Earth as an Ecosystem Credits: (5)
- OR ENST 202 - Environment and Society Credits: (5)
- RTE 330 - Sustainable Resources for Recreation and Tourism Credits: (3)
- RTE 355 - Sustainable Tourism: Contemporary Issues Credits: (2)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 484 - Legal Liability and Risk Management Credits: (4)

Choose two from the following: Credits: 7-10

- Any ANTH course(s) with approval.
- Any ECON course(s) with approval.
- Any GEOG course(s) with approval.
- Any RTE course(s) with approval.
- UNIV 304 - International Sustainable Development Credits: (5)

Total Credits: 24-27

College and Department Information

Family and Consumer Sciences Department College of Education and Professional Studies

## Tourism Management Minor

Students who have a major in another area may desire to diversify their abilities by choosing to complete a minor program in Recreation and Tourism. This minor complement numerous major programs and expands career opportunities.

## Requirements

To be admitted to a major or minor in Recreation, Tourism and Events, a student must have a cumulative GPA of 2.3 (or be a freshman or transfer). A minimum grade of C - must be earned in each course counted toward fulfilling major and minor requirements.

Required Courses Credits: 21

- RTE 201 - Introduction to Recreation and Tourism Credits: (3)
- RTE 230 - Program and Event Budgeting Credits: (2)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 373E - Resort Management Credits: (5)
- RTE 480 - Tourism Administration Credits: (4)
- RTE 484 - Legal Liability and Risk Management Credits: (4)

Department-Approved Electives Credits: 8-9

Other courses not listed may be used with approval by RTE advisor.

- RTE 272 - Lodging Operations I Credits: (3)
- RTE 337 - Tour and Interpretive Program Development Credits: (3)
- RTE 373D - Convention and Meeting Management Credits: (5)
- RTE 374 - Festivals and Events Credits: (4)
- RTE 379 - Cruise Line Industry Credits: (3)
- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 405 - Hospitality Catering Credits: (3)
- RTE 452 - Regional Wine Tourism Credits: (4)
- OR GWT 452 - Regional Wine Tourism Credits: (4)
- RTE 454 - Wine Tourism Applications Credits: (4)
- RTE 292 - Practicum Credits: (1-3) (Must be taken for 3 credits.)
- OR RTE 492 - Senior Practicum Credits: (1-10) (Must be taken for 3 credits.)
- UNIV 304 - International Sustainable Development Credits: (5)

Total Credits: 29-30

College and Department Information

## Wine Trade and Tourism Minor

This cross-disciplinary program prepares individuals for employment in many areas of the wine industry, including tourism, hospitality services, retailing, wine sales, marketing, and tasting room and event management.

## Admission Requirements

Admission to the minor requires admission to the Wine Trade Professional Certificate Program. Students must be 21 years of age or older and must apply for acceptance into the program. Permission of the GWS certificate advisor is required.

## Financial Obligations

Because the Global Wine Study (GWS) courses are in a selfsupported program no tuition waiver programs apply for GWS courses. Additional course fees and continuing education tuition apply. Tuition for GWS classes may be higher than regular CWU tuition. Tuition for the RTE courses will be at the regular CWU tuition rate and waivers can be applied to the RTE courses.

## Required Courses

- GWT 302 - Fundamentals of Viticulture and Enology Credits: (4)
- GWT 303 - Major Wine Regions of the World Credits: (4)
- GWT 304 - Wine Marketing and Branding Credits: (4)
- GWT 406 - Professional Wine Analysis Credits: (3)
- GWT 452 - Regional Wine Tourism Credits: (4)
- OR RTE 452 - Regional Wine Tourism Credits: (4)
- GWT 454 - Wine Tourism Applications Credits: (4)
- OR RTE 454 - Wine Tourism Applications Credits: (4)
- RTE 371 - Tourism Essentials Credits: (3)
- RTE 374 - Festivals and Events Credits: (4)

Total Credits: 30

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

## Child Development Certificate

The child development certificate provides students with knowledge and practical skills to work with children from birth through emerging adulthood. Students in the program will learn about theories of child development; cutting-edge research about how children develop in multiple domains, with a focus on how development occurs in the context of family, community, and culture; and skills for practical application of child development. The certificate is designed for matriculated and
non-matriculated students who want to enhance their expertise in child development to improve their ability to work with children or parents in their chosen profession.

## Required Courses

- FCL 232 - Child Development Credits: (3)
- FCL 336 - Parent Education and Guidance Credits: (4)
- FCL 339 - Adolescence and Emerging Adulthood Credits: (4)
- FCL 415 - Therapeutic Play Credits: (4)
- FCL 432 - Theories in Child Development Credits: (3)
- FCL 438-Attachment Theory and Practice Credits: (4)

Total Credits: 22

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

## Professional Sommelier Certificate


#### Abstract

This certificate program focuses on learning the techniques involved in becoming a Sommelier. A Sommelier works in the dining aspects of the beverage industry including pairing food with wine, beer, spirits and other beverages along with managing the beverage component of a dining establishment. This certificate covers beverage and food pairing, wine service techniques and beverage management, cost and pricing structures, developing beverage lists, and includes a professional tasting component to cover wine, beer, spirits and other beverages. Graduates are prepared for food and beverage related careers in the dining and hospitality industry. Students will be expected to spend significant amounts of time outside the classroom working on projects, field trips and assignments.


## Admission Requirements

Students must be 18 years of age to apply for the certificate. It should be understood that all classroom courses involving tasting will require students to taste spit (Washington State legislation RCW 66.20.010 (12) a-f).

## Tuition

Global Wine Studies (GWS) course tuition is the same as the regular CWU tuition for undergraduates. Some courses have lab fees to cover additional costs.

## Required Courses

- GWT 303 - Major Wine Regions of the World Credits: (4)
- GWT 405-Beverage and Food Pairing for the Sommelier Credits: (4)
- GWT 407 - Beverage Management and Service for the Sommelier Credits: (4)
- GWT 409 - Applied Professional Tasting Analysis (Put on Reserve 9/16/16.) Credits: (4)

Total Credits: 16

Department and College Information

Family and Consumer Sciences Department
College of Education and Professional Studies

## Wine Trade Professional Certificate

This certificate program focuses on the business and trade aspects of the wine industry. Topics covered include the business of wine, world wine regions, trade structures, wine marketing, wine merchandising, viticulture, winemaking, wine styles, and professional evaluation techniques. Graduates are prepared for wine-related careers in sales and merchandising, distribution, marketing, import/export, consulting, hospitality, and more.

This certificate program is a 10 -week, intensive program and all four courses must be taken. Students will be expected to spend significant amounts of time outside the classroom working on projects, field trips, and assignments. Students must obtain a grade of B- or above in all four courses to receive the certificate.

## Admission Requirements

Students must be 18 years of age to apply for the certificate. It should be understood that all classroom courses involving tasting will require students to taste and spit (Washington State legislation RCW 66.20.010 (12) a-f).

## Course Requirements

Students will be expected to spend significant amounts of time outside the classroom working on projects, filed trips, and assignments. Students must earn a cumulative GPA of 2.7 in the global wine studies core courses.

## Tuition

Global Wine Studies (GWS) course tuition is the same as the regular CWU tuition for undergraduates. Some courses have lab fees to cover additional costs.

## Required Courses

- GWT 302 - Fundamentals of Viticulture and Enology Credits: (4)
- GWT 303 - Major Wine Regions of the World Credits: (4)
- GWT 304 - Wine Marketing and Branding Credits: (4)
- GWT 406 - Professional Wine Analysis Credits: (3)

Department and College Information

Family and Consumer Sciences Department
College of Education and Professional Studies

# Film Program 

College of Arts and Humanities<br>Ellensburg<br>Bouillon Hall, room 224

509-963-2893
www.cwu.edu/film
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Program Co-Directors
Liahna Armstrong, PhD, English
Jon Ward, MA, film

## Professors

Liahna Armstrong, PhD, English
Michael J. Smith, MFA, theatre arts

## Associate Professor

Maria Sanders, MFA, film

## Lecturers

Michael Caldwell, MFA, film
Melissa Johnson, MA, English
Patrick Smith, MFA, film
Jason Tucholke, MFA, sound and media design, arts technology
Jon Ward, MA, film

## Program Information

The Film program is an innovative, interdisciplinary, undergraduate program leading to a BA in Film or a minor in Production, Cinema Studies, or Screenwriting.

In the BA program, students are provided the opportunity to pursue a course of study that encompasses the scholarly study of film as well as the production and technical aspects of the moving image and writing for the screen. The program employs a scholarly, creative, and professional approach to the study of film and seeks to help each student discover his or her talent as an independent critic, artist, and communicator.

The Film BA is designed to build specific skills in media production from a strong foundation of general knowledge in film. Students can choose from a range of courses that offer both introductory as well as more advanced study in all aspects of mediated storytelling, from writing and producing to directing, cinematography, and editing. The program emphasizes exploration of the student's personal creative voice through hands-on productions.

All students begin by making short programs, then progress to more complex productions while learning the collaborative nature of film/video production through crew experiences. Students are encouraged to experiment with traditional narrative structures, documentary, and multi-camera production, as the
curriculum allows and their interests dictate.
To complete the learning experience and help students prepare for the job market, all students pursuing the major are strongly encouraged to take advantage of internship opportunities and are required to compile a portfolio and capstone project.

## Admission Requirements

A Film major or minor can be selected by students using the normal major or minor declaration process and with assistance from a faculty advisor. Any student who has a minimum CWU grade point average of 2.4 or higher may be admitted to this program. Admission is dependent upon the number of slots available.

## Graduation Requirements

Students must maintain a 2.4 CWU GPA or higher with a minimum grade of C - in all courses counted toward fulfilling the film major or minor requirements.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/film or by contacting the department directly.

## Film Major, BA

The Film program is an innovative, interdisciplinary, undergraduate program leading to a BA in Film or a minor in Production, Cinema Studies, or Screenwriting.

In the BA program, students are provided the opportunity to pursue a course of study that encompasses the scholarly study of film as well as the production and technical aspects of the moving image and writing for the screen. The program employs a scholarly, creative, and professional approach to the study of film and seeks to help each student discover his or her talent as an independent critic, artist, and communicator.

The Film BA is designed to build specific skills in media production from a strong foundation of general knowledge in film. Students can choose from a range of courses that offer both introductory as well as more advanced study in all aspects of mediated storytelling, from writing and producing to directing, cinematography, and editing. The program emphasizes exploration of the student's personal creative voice through hands-on productions.

All students begin by making short programs, then progress to more complex productions while learning the collaborative nature of film/video production through crew experiences. Students are encouraged to experiment with traditional narrative structures, documentary, and multi-camera production, as the curriculum allows and their interests dictate.

To complete the learning experience and help students prepare for the job market, all students pursuing the major are strongly encouraged to take advantage of internship opportunities and are required to compile a portfolio and capstone project.

## Admission Requirements

A Film major or minor can be selected by students using the normal major or minor declaration process and with assistance from a faculty advisor. Any student who has a minimum CWU grade point average of 2.4 or higher may be admitted to this program. Admission is dependent upon the number of slots available.

## Graduation Requirements

Students must maintain a 2.4 CWU GPA or higher with a minimum grade of C - in all courses counted toward fulfilling the film major or minor requirements.

Required Courses Credits: 69

- FILM 216 - Basic Audio Technology Credits: (1)
- FILM 250 - Introduction to Film Credits: (5)
- FILM 267 - Screenwriting Fundamentals Credits: (4)
- OR ENG 267 - Screenwriting Fundamentals Credits: (4)
- FILM 340 - Production I Credits: (5)
- FILM 342 - Cinema Studies I: Early American Film History Credits: (4)
- OR ENG 342 - Cinema Studies I: Early American Film History Credits: (4)
- FILM 343 - Cinema Studies II: Modern American Film History Credits: (4)
- OR ENG 343 - Cinema Studies II: Modern American Film History Credits: (4)
- FILM 344 - Cinema Studies III: Film Theory Credits: (5)
- OR ENG 344-Cinema Studies III: Film Theory Credits: (5)
- FILM 346 - Producing Credits: (4)
- FILM 350 - Production II Credits: (5)
- FILM 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- OR ENG 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- FILM 380 - Production III Credits: (4)
- FILM 440 - Production IV Credits: (4)
- FILM 450 - Production V Credits: (4)
- FILM 480 - Production VI Credits: (5)
- FILM 489 - Film Career Seminar Credits: (1)

Select one from the following: ( 4 credits)

- FILM 430-Cinematography Credits: (4)
- FILM 431 - Advanced Editing Credits: (4)
- FILM 432 - Directing Credits: (4)

Select one from the following: ( 5 credits)

- FILM 461 - Studies in Film and Culture Credits: (5)
- OR ENG 461 - Studies in Film and Culture Credits: (5)
- FILM 462 - Studies in Film and/or Television Genres Credits: (5)
- OR ENG 462 - Studies in Film and/or Television Genres Credits: (5)
- FILM 463 - Studies in the Film Auteur Credits: (5)
- OR ENG 463 - Studies in the Film Auteur Credits: (5)

Department-Approved Electives Credits: 6

Select at least 6 credits from the following:

- ANTH 351 - Visual Anthropology Credits: (4)
- OR COM 351 - Visual Anthropology Credits: (4)
- CHIN 461 - Chinese Cinema Credits: (4)
- COM 321 - Visual Storytelling Credits: (5)
- FILM 214 - Basic Film Equipment Credits: (1)
- FILM 217 - Basic Editing: Final Cut Pro Credits: (1)
- FILM 218 - Basic Editing: Premiere Credits: (1)
- FILM 219 - Basic Editing: DaVinci Resolve Credits: (1)
- FILM 220 - Basic After Effects Credits: (1)
- FILM 221 - Color Correction Credits: (1)
- FILM 222 - Advanced Equipment Credits: (1)
- FILM 225 - Film Classics Credits: (1)
- FILM 256 - Sound and Mixing - Aesthetics and Essentials Credits: (3)
- OR TH 256 - Sound and Mixing - Aesthetics and Essentials Credits: (3)
- FILM 298 - Special Topics Credits: (1-6)
- FILM 299 - Seminar Credits: (1-5)
- FILM 327 - Scriptwriter in Development and Production Credits: (4)
- FILM 337 - Documentary Scriptwriting Credits: (4)
- FILM 354 - History of Television Credits: (4)
- OR ENG 354 - History of Television Credits: (4)
- FILM 355 - History of Documentary Credits: (4)
- OR ENG 355 - History of Documentary Credits: (4)
- FILM 356 - Writing for Screen Genre Credits: (4)
- FILM 357 - Writing for Serial Media Credits: (4)
- OR ENG 357 - Writing for Serial Media Credits: (4)
- FILM 452 - Applied Studio Production Credits: (1-2)
- FILM 453 - Wildcat Films Credits: (3)
- FILM 456 - Advanced Concepts in Sound for Film and Stage Credits: (4)
- FILM 470 - The Writer's Room Credits: (5)
- FILM 490-Cooperative Education Credits: (1-12)
- FILM 491 - Workshop Credits: (1-6)
- FILM 492 - Practicum Credits: (2)
- FILM 496 - Individual Study Credits: (1-6)
- FILM 498 - Special Topics Credits: (1-6)
- FILM 499 - Seminar Credits: (1-6)
- FR 460 - French Cinema Credits: (4)
- JAPN 462 - Japanese Cinema Credits: (5)
- RUSS 462 - Russian Cinema Credits: (4)
- SPAN 446 - Hispanic Cinema Credits: (5)
- TH 144 - Foundations of Acting Credits: (3)
- TH 329 - Directing I Credits: (3)
- TH 330 - Introduction to Playwriting Credits: (4)
- TH 356 - Stage Sound Credits: (3)
- TH 368 - Stage Lighting Credits: (3)

Total Credits: 75

College and Department Information

Film Program
College of Arts and Humanities

## Cinema Studies Minor

Students wishing to explore the history, theory, and criticism of film and television in addition to their major course of study, are encouraged to minor in cinema studies. In this minor, students examine the role of cinema as a unique twentieth-century art form and as an influence on cultural practices of enduring social significance.

## Admission Requirements

The cinema studies minor is open only to non-film majors.

## Graduation Requirements

Students must maintain a 2.4 GPA or higher with a minimum grade of C - in all courses counted toward fulfilling the cinema studies minor requirements.

## Required Courses

- FILM 250 - Introduction to Film Credits: (5)
- ENG 342 - Cinema Studies I: Early American Film History Credits: (4)
- OR FILM 342 - Cinema Studies I: Early American Film History Credits: (4)
- ENG 343 - Cinema Studies II: Modern American Film History Credits: (4)
- OR FILM 343-Cinema Studies II: Modern American Film History Credits: (4)
- ENG 344 - Cinema Studies III: Film Theory Credits: (5)
- OR FILM 344- Cinema Studies III: Film Theory Credits: (5)
- ENG 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- OR FILM 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- ENG 460 - Cinema Studies V: Advanced World Cinema Credits: (5)
- OR FILM 460 - Cinema Studies V: Advanced World Cinema Credits: (5)
- FILM 492 - Practicum Credits: (2)

Choose two of the following:

- ENG 461 - Studies in Film and Culture Credits: (5)
- OR FILM 461 - Studies in Film and Culture Credits: (5)
- ENG 462 - Studies in Film and/or Television Genres Credits: (5)
- OR FILM 462-Studies in Film and/or Television Genres Credits: (5)
- ENG 463 - Studies in the Film Auteur Credits: (5)
- OR FILM 463 - Studies in the Film Auteur Credits: (5)

Total Credits: 40

College and Department Information

Film Program
College of Arts and Humanities

## Film Production Minor

For students who would like to study film production as a supplement to a major in another area, the Film Production minor offers a solid foundation in techniques and approaches to cinematic storytelling. Minors will graduate with a useful set of skills and vocabulary in writing, directing, editing, and camera operation.

## Admission Requirements

A Film major or minor can be selected by students using the normal major or minor declaration process and with assistance from a faculty advisor. Any student who has a minimum CWU grade point average of 2.4 or higher may be admitted to this program. Admission is dependent upon the number of slots available.

## Graduation Requirements

Students must maintain a 2.4 CWU GPA or higher with a minimum grade of C - in all courses counted toward fulfilling the film major or minor requirements.

## Required Courses

- FILM 216 - Basic Audio Technology Credits: (1)
- FILM 217 - Basic Editing: Final Cut Pro Credits: (1)
- FILM 221 - Color Correction Credits: (1)
- FILM 250 - Introduction to Film Credits: (5)
- FILM 267 - Screenwriting Fundamentals Credits: (4)
- OR ENG 267 - Screenwriting Fundamentals Credits: (4)
- FILM 340 - Production I Credits: (5)
- FILM 350 - Production II Credits: (5)
- FILM 380 - Production III Credits: (4)
- FILM 453 - Wildcat Films Credits: (3)

Select one from the following: (4 credits)

- FILM 342 - Cinema Studies I: Early American Film History Credits: (4)
- OR ENG 342 - Cinema Studies I: Early American Film History Credits: (4)
- FILM 343 - Cinema Studies II: Modern American Film History Credits: (4)
- OR ENG 343-Cinema Studies II: Modern American Film History Credits: (4)

Select one from the following: (5 credits)

- FILM 344 - Cinema Studies III: Film Theory Credits: (5)
- OR ENG 344-Cinema Studies III: Film Theory Credits: (5)
- FILM 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- OR ENG 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)


## Total Credits: 38

## Screenwriting Minor

The screenwriting minor offers students already majoring in film the opportunity to develop more advanced skills in cinematic storytelling, theoretical approaches to screenwriting, adaptation of other media to the screen and screenwriting for nontraditional story structures. Under the mentorship of faculty, screenwriting minors will spend considerable time writing and rewriting scripts, which will be added to a library of scripts available for development and production by students in the program.

This minor is open only to Film majors.

## Graduation Requirements

Students must maintain a 2.4 GPA or higher with a minimum grade of C- in all courses counted toward fulfilling the screenwriting minor requirements.

Required Courses

- FILM 327 - Scriptwriter in Development and Production Credits: (4)
- FILM 356 - Writing for Screen Genre Credits: (4)
- ENG 357 - Writing for Serial Media Credits: (4)
- OR FILM 357 - Writing for Serial Media Credits: (4)
- ENG 460 - Cinema Studies V: Advanced World Cinema Credits: (5)
- OR FILM 460 - Cinema Studies V: Advanced World Cinema Credits: (5)
- FILM 492 - Practicum Credits: (2)

Take three times for a total of 15 credits:

- FILM 470 - The Writer's Room Credits: (5)

Total Credits: 34

College and Department Information

College of Arts and Humanities

# Finance and Supply Chain Management Department 

College of Business
Ellensburg (E)
Shaw-Smyser Hall, room 413
CWU-Des Moines (D)
CWU-Lynnwood (L)
CWU-Pierce County (P)
CWU-Joint Base Lewis McChord
Mail Stop 7485
509-963-2032
Fax: 509-963-2875
www.cwu.edu/finance-supply
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Carlo D. Smith, PhD (D)

## Professors

Ozden Bayazit, PhD, supply chain management (L)

## Associate Professors

Deepak Iyengar, PhD , supply chain management (E)
Ke Ke Grace, PhD, supply chain management (D)
Yong Joo Lee, PhD, supply chain management (E)
Kun Liao, PhD, supply chain management (L)
Carlo Smith, PhD, supply chain management (D)
Thomas Tenerelli, PhD, finance (E)
Fang Wang, PhD, finance (L)
Michael Young, PhD, finance (E)

## Assistant Professor

Yuntaek Pae, PhD (D)

## Staff

Shirley Hood, secretary senior

## Bachelor of Science in Business Administration Program

The Department of Finance and SCM and the Department of Management jointly support the bachelor of science in business administration and business minor. The department offers coursework leading to the bachelor of science in business administration (BSBA) degree. In addition to the university general education requirements, the BSBA major is comprised of three principal components:

Foundation courses that provide foundation knowledge and skills needed for further study in business

Business core courses that build on the foundation group and focus on decision making in the main functional areas of business

Specialization courses that allow for advanced study in one of the functional areas.

Students select a 25 -credit specialization within the BSBA program in one of seven areas: finance, general business, human resource management, leadership and management, marketing management, personal financial planning or supply chain management.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59- to 60credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/finance-supply or by contacting the department directly.

## Supply Chain Management, BAS

Supply Chain Management (SCM) builds and prepares students for careers as analysts, decision makers and managers in any and all segments of an organization's supply, production distribution chain. Students who complete this program will have a fundamental understanding of the systematic, integrated nature of the creation and delivery of goods and services, and the manner in which the supply, production and distribution chain includes or involves other internal and external entities. Students will be able to solve problems and make decisions in this environment by using concepts from other business administration areas, computing and analytical skills, and appropriate quantitative and qualitative models.

The bachelor of applied science in supply chain management (BAS-SCM) is designed for students with any applied or technical school degree to gain a baccalaureate degree in a timely fashion. This degree requires significant study in general education at the upper-division level.

## Admission Requirements

Applicants for the BAS Supply Chain Management must meet the following requirements prior to admission.

- Completion of an applied or technical degree from a community or technical college with a minimum GPA of 2.25 .
- A world language is not required.
- Students applying to this program must meet with an advisor for the College of Business for a full evaluation of credits and requirements prior to be admitted to the program.
Application forms are available in the department offices. The completed form must be accompanied by transcripts that reflect all prior college work. Admission shall be based on grades earned in the admission requirement courses.

A minimum grade of "C-" (1.7) in each course. The credit/no credit option will not be accepted for any of these courses. These criteria apply to equivalent courses transferred from other institutions. The applicant must have earned a minimum grade point average of 2.0 in all collegiate study.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available
space. In that case, acceptance will be competitive, based on a selection index.

## Graduation Requirements

The following special rules apply to students seeking the BAS Supply Chain Major:

- Students must earn a minimum cumulative GPA of 2.25 in the major courses.

Admission Requirements Credits: 39

Admission shall be based on grades earned in the following courses:

- ACCT 251 - Financial Accounting Credits: (5)
- BIOL 101 - Fundamentals of Biology Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ENG 101 - Academic Writing I: Critical Reading and Responding Credits: (5)

Required Courses Credits: 53

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 380-Organizational Management Credits: (5)
- MIS 320 - Business Process Analysis and Systems Credits: (5)
- OR MIS 386 - Management Information Systems Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 450 - Logistics and Transportation Credits: (5)
- SCM 480 - Supply Chain Strategy Credits: (5)

Select a minimum of 5 credits from the following:

- SCM 310A - Enterprise Sales and Distribution Systems Lab Credits: (1)
- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 425A - Enterprise Purchasing and Materials Management Systems Lab Credits: (1)
- SCM 435A - Enterprise Production Planning and Execution Systems Lab Credits: (1)
- SCM 475 - Global Trade and Supply Chain Management Credits: (5)
- SCM 490 - Supply Chain Management Internship Credits: (1-12) (Must be taken for 5 credits)
- SCM 492 - Lean Six Sigma Practicum Credits: (5)
- SCM 493 - Supply Chain Boot Camp Credits: (1-6)
- SCM 496 - Individual Study Credits: (1-6)

Total Credits: 92

College and Department Information
Finance and Supply Chain Management Department College of Business

## Business Administration BS (BSBA), Finance Specialization

Finance builds on the business core and focuses on decision making in three interrelated areas: managerial finance, investments, and financial markets and institutions. The business core and finance specialization courses provide academic preparation for a wide variety of entry-level positions in managerial finance and the financial services industry.

Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172-Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40
Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301-Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41

Finance Specialization Courses
Required Courses

- ECON 330 - Money and Banking Credits: (5)
- FIN 470 - Intermediate Financial Management Credits: (5)
- FIN 475 - Investments Credits: (5)

Select a minimum of 10 credits from the following:
(with no more than 5 credits from ECON classes)

- BUS 490-Cooperative Education Credits: (1-12) (Must be taken for 5 credits)
- ECON 310 - International Economics Credits: (5)
- ECON 332 - Public Finance Credits: (5)
- ECON 352 - Managerial Economics Credits: (5)
- FIN 466 - Working Capital Management Credits: (5)
- FIN 474 - Personal Financial Planning Credits: (5)
- FIN 477 - International Finance Credits: (5)
- FIN 493 - Finance Boot Camp Credits: (1-6) or one other course approved in advance by a financial advisor Credits: (5)

Total Specialization Credits: 25
College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)


## Capstone Total Credits: 7

Total Credits: 111-113

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Finance and Supply Chain Management Department College of Business

## Business Administration BS (BSBA), Personal Financial Planning Specialization

Personal Financial Planning (PFP) prepares graduates to become fee-for service professional planners with strong ethical standards who work with families and individuals developing specific budget, asset management, and related planning processes. The program design and content also meets educational requirements to sit for the Certified Financial Planning Board of Standards, Inc. accreditation examination.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59 - to 60 credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40

Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Select one from the following for 4-5 credits:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ENG 310-Technical Writing Credits: (4)

Business Core Total Credits: 37-40
Personal Financial Planning Specialization

Required Courses

- ACCT 303- Tax Planning for Personal Finance Credits: (5)
- PFP 310 - Introduction to the Financial Planning Profession Credits: (5)
- PFP 440 - Estate Planning Credits: (5)
- PFP 450 - Insurance and Risk Management Credits: (5)
- PFP 475 - Financial Planning Investments Credits: (5)
- OR FIN 475 - Investments Credits: (5)
- PFP 460 - Retirement Planning Credits: (5)
- PFP 480 - Financial Planning Capstone Credits: (5)

Total Required Courses Credits: 35
College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7
Total Credits: 119-122

College and Department Information
College of Business Admission Requirements
For information on admission requirements, please go to: College of Business.

Finance and Supply Chain Management Department College of Business

## Business Administration BS (BSBA), Supply Chain Management Specialization

Supply Chain Management (SCM) builds on the business core and prepares students for careers as analysts, decision makers and managers in any and all segments of the organization's supply, production and distribution chain. Students who
complete this program will have a fundamental understanding of the systematic, integrated nature of the creation and delivery of goods and services, and the manner in which the supply, production and distribution chain includes or involves other internal and external entities. Students will be able to solve problems and make decisions in this environment by using concepts from accounting, economics and other business administration areas, computing and analytical skills, and appropriate quantitative and qualitative models.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99- to 100-credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the $59-$ to 60 credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits
have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits:
(5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40
Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41
Supply Chain Management Specialization Courses
Required Courses

- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 450 - Logistics and Transportation Credits: (5)
- SCM 480 - Supply Chain Strategy Credits: (5)

Select a minimum of 5 credits from the following:

- ACCT 305-Cost Accounting Credits: (5)
- MIS 460 - Applied Business Analytics Credits: (5)
- SCM 310A - Enterprise Sales and Distribution Systems Lab Credits: (1)
- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 425A - Enterprise Purchasing and Materials Management Systems Lab Credits: (1)
- SCM 435A - Enterprise Production Planning and Execution Systems Lab Credits: (1)
- SCM 450 - Logistics and Transportation Credits: (5)
- SCM 475 - Global Trade and Supply Chain Management Credits: (5)
- SCM 490 - Supply Chain Management Internship Credits: (1-12)
- SCM 492 - Lean Six Sigma Practicum Credits: (5)
- SCM 496 - Individual Study Credits: (1-6)

OR one other course approved in advance by SCM advisor Credits: (5)

Total Specialization Credits: 25
College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7

Total Credits: 111-113

College and Department Information

College of Business Admission Requirements
For information on admission requirements, please go to: College of Business.

Finance and Supply Chain Management Department College of Business

## Personal Financial Planning, BS

Personal Financial Planning (PFP) prepares graduates to become fee-for service professional planners with strong ethical standards who work with families and individuals developing specific budget, asset management, and related planning processes. The program design and content also meets educational requirements to sit for the Certified Financial Planning Board of Standards, Inc. accreditation examination.

## Graduation Requirements

Additional Personal Financial Planning BS Graduation Requirements
The following special rules apply to students seeking the Personal Financial Planning BS major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99-to 100- credit in-the-major coursework to be eligible for a degree. In addition, the Department requires a minimum GPA of 2.25 in the 59 - to 60 credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BS degree.


## Repeat Policy

Business administration and Personal Financial Planning courses may be repeated only once.

Foundation Courses Credits: 34

- BUS 102 - Business Computer Skills Credits: (4)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5) Select one from the following:
- ECON 130 - Foundations for Business Analytics Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5) Select one from the following:
- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 301-Accounting Skills for Non-Business Majors Credits: (5) (or approved substitite)

Required Courses Credits: 48

- ACCT 303- Tax Planning for Personal Finance Credits: (5)
- FCL 355 - Family Financial Counseling Credits: (4)
- PFP 310 - Introduction to the Financial Planning Profession Credits: (5)
- PFP 386 - Information Technologies for Financial Planning Credits: (4)
- PFP 440 - Estate Planning Credits: (5)
- PFP 450 - Insurance and Risk Management Credits: (5)
- PFP 460 - Retirement Planning Credits: (5)
- PFP 475 - Financial Planning Investments Credits: (5)
- PFP 480 - Financial Planning Capstone Credits: (5)
- PFP 490 - Personal Financial Planning Internship Credits: (1-12) (Must be taken for 5 credits.)

Written and Verbal Communications Courses Credits: 5

- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ENG 311 - Business Writing Credits: (3)

Total Credits: 87

College and Department Information
Finance and Supply Chain Management Department College of Business

## Business Minor (MGT)

The business minor provides students with an introduction to several key areas of business administration. Business minors are only available to students with declared majors. Declaration forms with instructions, are available online and, in department and center offices. Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the business administration minor requirements.

Business Minor Core

## Required Courses

- ACCT 252 - Managerial Accounting Credits: (5)
- OR ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- BUS 241-Legal Environment of Business Credits: (5)
- BUS 374 - Personal Investments Credits: (5)
- OR ECON 201 - Principles of Economics Micro Credits: (5)
- HRM 381-Management of Human Resources Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- MGT 380 - Organizational Management Credits: (5)

Total Credits: 30

College and Department Information

Management Department
College of Business

## Finance Minor

The finance minor provides students in business, economics, accounting and actuarial sciences with grounding in key financial principles and practices. Finance minors are only available to students who are currently pursuing a major in business, accounting or actuarial sciences. Declarations forms, with instructions, are available online, in department and in center offices. Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the finance minor requirements.

## Required Courses

- ECON 202 - Principles of Economics Macro Credits: (5)
- ECON 330 - Money and Banking Credits: (5)
- FIN 370 - Introductory Financial Management Credits: (5)
- FIN 470 - Intermediate Financial Management Credits: (5)
- FIN 475 - Investments Credits: (5)

Total Credits: 25

College and Department Information
Finance and Supply Chain Management Department College of Business

## Supply Chain Management Minor

The minor program provides the opportunity for the student to gain knowledge and skills in the full spectrum of supply chain activities-supplier relationships, purchasing management, operations and inventory management, logistics and transportation, quality management, and information technology. Typical job titles include: purchasing/supply manager, procurement manager, materials manager, demand planner, logistics analyst as well as others.

## Additional Notes:

This program is open to current accounting, economics, finance, management and marketing students, and CWU students in other academic programs who have completed the necessary pre-requisite courses. The courses in the minor may be used as part of the BS Business Administration Program.

Required Courses

- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 475 - Global Trade and Supply Chain Management Credits: (5)

Select a minimum of 5 credits from the following:

- ACCT 305-Cost Accounting Credits: (5)
- BUS 490 - Cooperative Education Credits: (1-12)
- MGT 484 - International Management Credits: (5)
- SCM 302 - Supply Chain Bootcamp Credits: (2)
- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 450 - Logistics and Transportation Credits: (5)

Total Credits: 35

College and Department Information

Finance and Supply Chain Management Department College of Business

## Lean Six Sigma Greenbelt Certificate

The courses in Lean Six Sigma Greenbelt Certificate provide students with the necessary concepts, skills, techniques and experiences to improve operating processes and quality in all sectors of profit and not-for-profit organizations in a manufacturing, services or administrative environment.

## Admission Requirements

## Additional Notes:

This program is open to current accounting, economics, finance, management and marketing students, CWU students in other academic programs who have completed certificate course prerequisites and persons in other fields who have completed program prerequisite courses. The courses in the certificate program may be used as part of the BS Business Administration program. A cumulative GPA of 3.0 must be earned in the program to be eligible for the certificate.

Prerequisite Credits: 5

- BUS 221 - Introductory Business Statistics Credits: (5)


## Required Courses Credits: 10

- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 492 - Lean Six Sigma Practicum Credits: (5)

Total Credits: 15
College and Department Information
Finance and Supply Chain Management Department College of Business

## Personal Financial Planning Certificate

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## Program Requirements

Students must complete 35 credits of the Personal Financial Planning Certificate in residency.

## Additional Notes

This certificate program is directed toward graduates and working adults.

Required Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- ACCT 303-Tax Planning for Personal Finance Credits: (5)
- PFP 310 - Introduction to the Financial Planning Profession Credits: (5)
- PFP 440 - Estate Planning Credits: (5)
- PFP 450 - Insurance and Risk Management Credits: (5)
- PFP 460 - Retirement Planning Credits: (5)
- PFP 475 - Financial Planning Investments Credits: (5)
- PFP 480 - Financial Planning Capstone Credits: (5)

Total Credits: 40

## Supply Chain Management Certificate

The certificate program provides the opportunity for professionals to gain knowledge and skills in the full spectrum of supply chain activities-supplier relationships, purchasing management, operations and inventory management, logistics and transportation, quality management, and information technology. Typical job titles include: purchasing/ supply manager, procurement manager, materials manager, contracts manager, purchasing agent, senior buyer and buyer/planner.

## Program Requirements

Students must complete 25 credits of the supply chain management certificate in residency.

A cumulative GPA of 3.0 must be earned in the program to be eligible for the certificate.

## Additional Notes

This certificate program is directed toward graduates and working adults. Current students in accounting, economics, finance, management, marketing and those in other academic programs are encouraged to pursue a minor in supply chain management.

## Required Courses

- SCM 310 - Supply Chain Management Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 475 - Global Trade and Supply Chain Management Credits: (5)

Select a minimum of 5 credits from the following:

- ACCT 305-Cost Accounting Credits: (5)
- BUS 490 - Cooperative Education Credits: (1-12)
- MGT 484 - International Management Credits: (5)
- SCM 302 - Supply Chain Bootcamp Credits: (2)
- SCM 310A - Enterprise Sales and Distribution Systems Lab Credits: (1)
- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 425A - Enterprise Purchasing and Materials Management Systems Lab Credits: (1)
- SCM 435A - Enterprise Production Planning and Execution Systems Lab Credits: (1)
- SCM 450 - Logistics and Transportation Credits: (5)
- SCM 480 - Supply Chain Strategy Credits: (5)

Total Credits: 25

College and Department Information

Finance and Supply Chain Management Department College of Business

## Geography Department

College of the Sciences
Ellensburg
Dean Hall, room 301
Mail Stop 7420
509-963-1188
Fax: 509-963-1047
www.cwu.edu/geography
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
John Bowen, PhD

## Professors

John Bowen, PhD, economic geography, transportation geography, Asia
Anthony Gabriel, PhD, hydrology, lake and river ecosystems, coastal and wetlands management
Robert Hickey, PhD, environmental impacts, coastal zones, GIS, Australia
Karl Lillquist, PhD, physical geography, geomorphology, soils, environmental change in arid and alpine watersheds

## Associate Professors

Elvin E. Delgado, PhD, political ecology, energy and capitalism, political economy and nature, critical resource geography, health geography
Jennifer Lipton, PhD, cultural ecology, remote sensing, climate change, Latin America
Michael Pease, water resources, watershed planning and
analysis, environmental law
Craig Revels, PhD , cultural-historical geography, landscape, Latin America
Megan Walsh, PhD, biogeography, paleoecology, NW fire history, climate change

## Assistant Professors

Sterling Quinn, PhD, GIS-geographic information systems, crowdsourced data, critical cartography, Latin America

## Senior Lecturers

Holly English, MS, environmental policy and energy resources Elaine Glenn, MS, political geography, world regional geography, Middle East, Russia

## Emeritus Faculty

Dee Eberhart, MA
Kenneth Hammond, PhD
James Huckabay, PhD
Nancy Hultquist, PhD
Robert Kuhlken, PhD
John Ressler, PhD
Morris Uebelacker, PhD

## Staff

David Cordner, instructional and classroom support technician III
Monica Reece-Bruya, secretary senior

## Department Information

An understanding of geography is integral to an educated person's ability to live and act effectively in today's changing world. Abroad range of human, environmental, and technological factors are at work shaping the future of our planet, and it is the mission of the department of geography to prepare students to be active participants in that emerging future. Geography's traditional concern with human-environment interactions, the interrelationships between places, and the associated impacts and problems of these processes provides important insights into today's complex societal challenges. the department emphasizes critical thinking and applied approaches to analysis, while providing our graduates with the skills necessary to deal with issues at scales ranging from local to global.

Courses in the department of geography introduce students to world regions such as Asia and Latin America while also providing a fuller understanding for the patterns and relationships of our home region, the Pacific Northwest. We emphasize field learning and a holistic approach to the physical and societal characteristics of places. Majors in geography hone their written, verbal, and map communication skills while gaining proficiency in specialized tools such as geographic information systems (GIS) and remote sensing technology. Skills in geospatial analysis are useful in addressing a wide range of problems, from choosing a location for a neighborhood coffee shop to minimizing damage from wildfire to assessing the likely impacts of climate change.

The department maintains a state-of-the-art lab for instruction in GIS, air photo interpretation, remote sensing, and quantitative methods. Students also learn from and collaborate with faculty members in the department's well-equipped soils, paleoecology, and hydrology labs. The department also encourages students to connect their geography training with related university
programs, especially those in which the department is an active participant, including : Environmental Studies, Energy Studies, Asia Studies, Latin American Studies, International Studies and Programs, and the Resource Management Graduate Program.

Upon graduation, geography majors work in a wide range of careers, with particular success in geospatial data analysis (e.g. computer mapping and GIS), urban and regional planning, and employment in local, state, and federal government agencies. In addition, the interdisciplinary nature of geography provides many other opportunities for our majors, including graduate school.

All students who wish to major in geography must:

1. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
2. Apply for acceptance into the geography major
3. Upon acceptance into the program, meet with their assigned advisor to develop a major contract
4. Earn a C- or higher grade in each of the courses in their major contract

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/geography or by contacting the department directly.

## Geography Major, BA

This major of 65 credits offers students the greatest flexibility and is suited for students with interests outside of the specializations listed below. In consultation with a departmental advisor, students may choose a specialization and design a program of component courses which best fits specific career goals and aspirations. In addition to the core requirements, students pursuing this option must take a set of departmentapproved electives that includes an upper-division course from each of five subfields. To satisfy the overall major requirement, at least 8 of the credits must be in 400-level geography courses in addition to Geography 489 - Geography Capstone.

## Geography Core

## Admission to the Major

All students who wish to major in geography must:

1. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
2. Apply for acceptance into the geography major
3. Upon acceptance into the program, meet with their assigned advisor to develop a major contract
4. Earn a C- or higher grade in each of the courses in their major contract

Core Requirements

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- GEOG 489 - Geography Capstone Credits: (2)

Total Core Requirement Credits: 25

Department-approved Electives

Must include one upper-division geography course in each of the five subfields: regional, physical, human, resource, and techniques.

Total Electives Credits: 40

Total Credits: 65

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## Geography BS, Environmental and Resource Geography Specialization

This specialization engages students in courses that primarily use field and laboratory techniques to study Earth's environmental systems and the human dimensions of resource use and allocation. The curriculum is designed to provide majors with an applied approach for developing data collection and analysis skills, as well as an ability to evaluate the societal and physical dimensions of environmental sustainability. This specialization places a strong emphasis on understanding human-environmental interactions, including climate change, hazards, and watershed and landscape dynamics in aquatic, mountain, arid, and forest environments, particularly the Pacific Northwest. Students who complete this specialization will be prepared for careers in natural resource management and are likely to be employed by federal, state, and tribal agencies, as well as private consulting firms. Students interested in graduate study in the field of environmental geography or resource management should work closely with their advisor to tailor this specialization to their particular field of interest.

## Geography Core

## Admission to the Major

All students who wish to major in geography must:

1. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
2. Apply for acceptance into the geography major
3. Upon acceptance into the program, meet with their assigned advisor to develop a major contract
4. Earn a C- or higher grade in each of the courses in their major contract

Core Requirements

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- GEOG 489 - Geography Capstone Credits: (2)

Total Core Requirement Credits: 25
Environmental Geography Specialization
Environmental Geography Credits: 15
Choose three from the following:

- GEOG 361 - Soils Credits: (5)
- GEOG 382 - Hydrology Credits: (5)
- GEOG 483 - Snow Credits: (5)
- GEOG 386-Geomorphology Credits: (5)
- GEOG 387 - Biogeography Credits: (5)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 453 - Riparian and Wetlands Analysis Credits: (5)

Regional Courses Credits: 5
Choose one from the following:

- GEOG 450 - Arid Environments Credits: (5)
- GEOG 451 - Mountain Environments Credits: (5)
- GEOG 452 - Coastal Environments Credits: (5)
- GEOG 454 - Forest Environments Credits: (5)

Techniques Courses Credits: 10

- GEOG 409 - Quantitative Methods in Geography Credits: (5)
and choose one from the following:
- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 325 - Field Methods in Geography Credits: (5)
- GEOG 330 - Airphoto Interpretation Credits: (5)

Resource Geography Courses Credits: 12-15
Choose three from the following:

- GEOG 305 - Introduction to Land Use Planning Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 441 - Climate Change: Human and Biophysical Dimensions Credits: (4)
- GEOG 443 - Energy Policy Credits: (5)
- GEOG 444 - Mineral Resources Credits: (4)
- GEOG 445 - Environmental Law Credits: (5)
- GEOG 449 - Environmental Hazard Analysis and Management Credits: (5)
- GEOG 455 - Pyrogeography Credits: (4)
- GEOG 456 - Recreation Geography Credits: (5)

Culminating Experience Courses Credits: 5

Choose one from the following for 5 credits:

- GEOG 490 - Cooperative Education Credits: (1-12)
- GEOG 493 - Geography Field Experience Credits: (1-12)
- GEOG 496 - Individual Study Credits: (1-6)

Department-Approved Electives Credits: 13-15

Taken from environmental, techniques, regional, and resource courses above, or by advisement.

Total Specialization Credits: 60-65
Total Credits: 85-90

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## Geography BS, GIScience Specialization

This GIScience specialization recognizes the increasing importance of spatial information in understanding and managing environmental and human systems, providing majors training in the processing, display, and analysis of geographical data. Students develop familiarity with the theoretical underpinnings of spatial analytical tools and techniques as well as their application to real-world problems. Issues pertaining to the collection, management, analysis, and dissemination of spatial information are covered through courses in GIS, aerial photo interpretation, remote sensing, and quantitative analysis. Graduates of the program will be well-prepared for employment as managers and analysts of spatial information, including positions in business, governmental agencies, and private consulting, as well as graduate study and advanced professional certification.

## Geography Core

## Admission to the Major

All students who wish to major in geography must:

1. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
2. Apply for acceptance into the geography major
3. Upon acceptance into the program, meet with their assigned advisor to develop a major contract
4. Earn a C- or higher grade in each of the courses in their major contract

Core Requirements

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits:
(4)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- GEOG 489 - Geography Capstone Credits: (2)

Total Core Requirement Credits: 25

GIScience Specialization
Required Courses Credits: 29-30

- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 330 - Airphoto Interpretation Credits: (5)
- GEOG 404 - GIS Analysis Credits: (5)
- GEOG 409 - Quantitative Methods in Geography Credits: (5)
- GEOG 411 - GIS Programming Credits: (5)
- OR CS 110 - Programming Fundamentals I Credits: (4)
- GEOG 430 - Remote Sensing Credits: (5)

Upper-level Geography Courses Credits: 13-15
Human/Regional Geography (one course required):

- GEOG 304 - Economic Geography Credits: (5)
- GEOG 308 - Cultural Geography Credits: (4)
- GEOG 346 - Political Geography Credits: (4)
- GEOG 352 - Geography of North America Credits: (4)
- GEOG 355 - Geography of the Pacific Northwest Credits: (4)
- GEOG 366 - Geography of the Middle East Credits: (4)
- GEOG 368-Geography of Middle America Credits: (4)
- GEOG 370 - Geography of South America Credits: (4)
- GEOG 371 - Geography of Europe Credits: (4)
- GEOG 372 - Geography of Russia Credits: (4)
- GEOG 375 - Geography of Asia Credits: (4)
- GEOG 381 - Urban Geography Credits: (4)

Physical Geography (one course required):

- GEOG 361 - Soils Credits: (5)
- GEOG 382 - Hydrology Credits: (5)
- GEOG 386 - Geomorphology Credits: (5)
- GEOG 387 - Biogeography Credits: (5)
- GEOG 388 - Weather and Climate Credits: (5)
- GEOG 453 - Riparian and Wetlands Analysis Credits: (5)
- GEOG 483 - Snow Credits: (5)

Human-Environment Relationships (one course required):

- GEOG 305 - Introduction to Land Use Planning Credits: (5)
- GEOG 306 - Transportation Geography and Planning Credits: (4)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 381 - Urban Geography Credits: (4)
- GEOG 422 - Geography of Food and Agriculture Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- GEOG 449 - Environmental Hazard Analysis and Management Credits: (5)
- GEOG 455 - Pyrogeography Credits: (4)
- GEOG 456 - Recreation Geography Credits: (5)
- GEOG 458 - People, Parks, and Protected Areas Credits: (4)

Culminating Experience Credits: 4

- GEOG 417 - Advanced GIS Credits: (4)

Department-Approved Electives Credits: 12
(minimum 12 credits total)

- CS 111 - Programming Fundamentals II Credits: (4)
- CS 250 - Web Development Technologies I Credits: (4)
- CS 351 - Web Development Technologies II Credits: (4)
- ENG 310-Technical Writing Credits: (4)
- GEOG 485 - Topics in GIS or Remote Sensing Credits: (1-5)
- GEOG 490 - Cooperative Education Credits: (1-12) (May be taken for 1-6 credits)
- GEOG 494 - Applied GIS Project Credits: (2-6)
- GEOG 496 - Individual Study Credits: (1-6)
- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- Other computer science classes, with approval from the Geography Chair.

NOTE: GEOG 490 and GEOG 496 must employ a spatial technique and be approved by the Geography Chair.

Total Specialization Credits: 58-61
Total Credits: 83-86

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## Public Policy BS

Public policy is a science dedicated to study of the policies and laws implemented by governments to address the needs of contemporary society. The bachelor of science in public policy is an interdisciplinary program aimed at exploration and analysis of the historical legacies as well as the contemporary forces that frame the policy making process. Because the world is increasingly pluralistic, public policy at CWU is not freestanding and must be combined with another major, frequently economics, environmental studies, geography, public health, political science, or sociology (students combining public policy and geography, political science, public health, or sociology will receive a bachelor of science degree in public policy and a bachelor of arts degree in geography or political science, public health, or sociology).

Public Policy Core Credits: 34-36

- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ECON 332 - Public Finance Credits: (5)
- ENST 202 - Environment and Society Credits: (5)
- OR GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- OR SOC 459 - Organizations Credits: (5)
- PUBH 209 - Consumer Health Credits: (4)
- OR PUBH 250 - Introduction to Health Policy and Systems Credits: (3)
- POSC 320 - Public Administration Credits: (5)
- POSC 325 - Introduction to Public Policy Credits: (3)

Research Tool Elective Credits: 4-5
Select one from the following:

- BUS 221 - Introductory Business Statistics Credits: (5)
- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 409 - Quantitative Methods in Geography Credits: (5)
- LAJ 400 - Research Methods in Criminal Justice Credits: (4)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)
- SOC 364 - Data Analysis in Sociology Credits: (5)

Department-Approved Electives Credits: 12-15

Electives in economics, environmental studies, geography, information technology and management, law and justice, political science, public health, or sociology.

Total Credits: 50-56

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## Energy Studies Minor

Students interested in investigating energy issues are encouraged to pursue the following interdisciplinary minor which provides:

1. An introduction to the technical concepts and language relevant to energy.
2. An investigation of current and projected energy use patterns and their associated environmental conflicts.
3. A study of the legal, institutional and economic factors that influence energy policy.
With the approval of the director of energy studies, the student will select appropriate electives to meet personal and professional goals.

## Required Courses

- ENST 310 - Energy and Society Credits: (5)
- GEOG 442 - Alternative Energy Credits: (5)
- OR ETSC 442 - Alternative Energy Resources and Technology Credits: (5)
- GEOG 443 - Energy Policy Credits: (5)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)

Select one from the following - Credits: 5

- ECON 101 - Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ETSC 101 - Modern Technology and Energy Credits: (5)

Select one from the following - Credits: 4-5

- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- SCED 301 - Interdisciplinary Science and Engineering Inquiry Credits: (5)

Select 2 credits of Cooperative Education - Credits: 2

- BIOL 490 - Cooperative Education Credits: (1-12)
- ENST 490 - Cooperative Education Credits: (1-12)
- GEOG 490 - Cooperative Education Credits: (1-12)
- ETSC 490 - Cooperative Education Credits: (1-12)


## Total Credits: 31-32

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## Geography Minor

All students who wish to minor in geography must:

1. Apply for acceptance into the geography minor;
2. Have a 2.25 minimum GPA in all coursework taken up to the time of admission;
3. Earn a C- or higher grade in each of the courses required for the minor.

Required Courses

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 208 - Our Human World Credits: (5)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- Any upper-division geography courses Credits: (7)

Total Credits: 30

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## Geographic Information Systems (GIS) Certificate

The GIS certificate provides recognition for students completing the required number of GIS-related classes at a high level of competence (minimum average GPA of 2.7). Certification will provide students with a powerful tool to assist their future job searches.

## Required Courses Credits: 19

- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 330 - Airphoto Interpretation Credits: (5)
- OR GEOG 411 - GIS Programming Credits: (5)
- GEOG 404 - GIS Analysis Credits: (5)
- GEOG 430 - Remote Sensing Credits: (5)

Department-Approved Electives Credits: 8

Choose from the following courses:

- CS 110 - Programming Fundamentals I Credits: (4)
- GEOG 330 - Airphoto Interpretation Credits: (5) (if not taken to fulfill core requirements)
- GEOG 409 - Quantitative Methods in Geography Credits: (5)
- GEOG 411 - GIS Programming Credits: (5) (if not taken to fulfill core requirements)
- GEOG 417 - Advanced GIS Credits: (4)
- GEOG 430 - Remote Sensing Credits: (5)
- GEOG 485 - Topics in GIS or Remote Sensing Credits: (1-5)
- GEOG 490 - Cooperative Education Credits: (1-12) (with a GIS focus)
- GEOG 494 - Applied GIS Project Credits: (2-6)
- GEOG 496 - Individual Study Credits: (1-6) (with a GIS focus)
(Individual study classes must have a GIS focus. Online classes may count toward 496 credit at a rate of 30 hours of online class work $=1$ credit.)
- Other Electives as approved by the director

Total Credits: 27
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## Geography Department

College of the Sciences

## Geological Sciences Department

College of the Sciences

Ellensburg
Science II, room 129
Mail Stop 7418
509-963-2701
Fax: 509-963-2821
www.geology.cwu.edu
See website for how these programs could be used for educational and career purposes.

## Faculty and Staff Chair

Chris Mattinson, PhD

## Professors

Wendy A. Bohrson, PhD , volcanology, isotope geochemistry, igneous petrology
Lisa L. Ely, PhD, geomorphology, paleohydrology, and quaternary geology
Carey Gazis, PhD, environmental geochemistry, stable isotope geochemistry, and hydrogeology
Jeffrey Lee, PhD, active and regional tectonics, structural geology
Timothy I. Melbourne, PhD, seismology, continental dynamics

## Associate Professors

Anne Egger, PhD, Earth science education and structural geology
Audrey Huerta, PhD , geodynamics, climate, and mountain building
Susan Kaspari, PhD , climate and environmental variability and glaciochemistry
Chris Mattinson, PhD , metamorphic petrology, geochronology, tectonics

## Assistant Professors

Breanyn MacInnes, PhD, sedimentary geology, coastal geomorphology
Walter Szeliga, PhD, geophysics and GPS geodesy

## Faculty Research Associates

Beth Pratt-Sitaula, PhD, earth science education and geomorphology
Paul Winberry, PhD, glacier dynamics, seismology

## Lecturers

Keegan Fengler, MS, earthquakes
Winston Norrish, PhD, petroleum geology

## Emeritus Professors

Robert D. Bentley, PhD, structural geology, igneous and metamorphic petrology, regional geology of the Pacific Northwest
James Hinthorne, PhD, mineralogy, geochemistry, spatial information systems

## Staff

Rex Flake, tiltmeter engineer, PANGA network engineer and geologist
Angela Halfpenny, engineering technician
Moriah Kauer, fiscal specialist
V. Marcelo Santillan, scientific programmer and GPS data analyst
Craig Scrivner, systems analyst
Nick Zentner, geology outreach and education director

## Department Information

Geosciences encompass the scientific study of the origin and evolution of the earth. Energy, mineral and water resources, geologic hazards, pollution of natural waters, and earthquake prediction are just a few of the pressing societal concerns that are addressed by geoscientists. The geological sciences program has two major parts: (1) solid-earth geosciences, such as rocks, minerals, deformation, and tectonic evolution of the Earth's crust; and (2) Earth processes over the last 10,000 years, such as active faulting, environmental geochemistry, hydrogeology and
water resources, geologic hazards, seismology, surface processes, and volcanology. Field, laboratory, and computer skills are essential to the study of the geological sciences. Research in the geosciences is active and varied, with faculty and students interacting closely. BS and BA degrees are offered in geology and a BS degree in environmental geological sciences. A BA in Earth sciences is also offered and is intended for future secondary school teachers. Minors in geology and Earth sciences are also available to supplement careers in other fields.

Students who declare a major in geology must register with the department and work out a specific program of study with the chairperson or an assigned advisor. Course programs can be tailored to the student's needs and interests with the aid of an academic advisor. Other course requirements may be modified in cases where past performance indicates superior ability. Students must be evaluated for math placement upon declaration of the major with the goal of establishing proficiency at the MATH 154 level early in the major program.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/geology/ or by contacting the department directly.

## Geology Major, BA

The BA degree is designed for students preparing to incorporate geosciences into broader careers such as teaching, educational outreach, resource management, environmental planning, business, or law. It is the appropriate major for students seeking an endorsement in teaching high school Earth science. The BA degree may be an appropriate prerequisite for some graduate programs, but a BS is recommended for students who anticipate pursuing a graduate degree or career in the geological sciences.

The BA in Geology pairs well with minors or double majors in communication, computer science, energy studies, environmental studies, museum studies (anthropology), science education K-8, and any other study that requires fundamental scientific skills with an emphasis on communication.

## Teaching Endorsement

This major partially satisfies the criteria for a teaching endorsement in Earth Science (5-12), qualifying students to teach Earth science at the high school, middle, or junior high levels. Students who successfully complete the Geology BA and STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the geology/Earth science teaching advisor as soon as possible to develop a course of study.

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103-Geology of Washington Credits: (4)
- OR GEOL 107 - Earth's Changing Surface Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- OR SCED 102 - Integrated Earth and Space Science Credits: (5)
- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 200 - Earth's Evolution and Global Change Credits: (5)
- GEOL 210 - Introduction to Geologic Field Methods Credits: (4)
- GEOL 305- Quantitative Reasoning for Geoscientists Credits: (4)
- GEOL 320 - Rocks and Minerals Credits: (5)
- GEOL 351-Geology of the Pacific Northwest Credits: (3)
- GEOL 370 - Sedimentology and Stratigraphy Credits: (5)
- GEOL 380 - Natural Hazards Credits: (5)
- OR GEOL 382 - Earth Resources and Pollution Credits: (4)
- GEOL 384 - Ocean, Atmosphere and Climate Interactions Credits: (4)
- GEOL 386 - Geomorphology Credits: (5)
- GEOL 487 - End-of-major Review Seminar Credits: (1)
- GEOL 490 - Cooperative Education Credits: (1-12)
- OR GEOL 493 - Field Methods in Environmental Geology Credits: (4)
- PHYS 101 - Introductory Astronomy I Credits: (5)
- OR PHYS 102 - Introduction to Astronomy Credits: (4)

Select one of the following courses (2-5) credits:

- ANTH 361 - Museum Exhibit Design Credits: (4)
- COM 207 - Introduction to Human Communication Credits: (5)
- ENG 310-Technical Writing Credits: (4)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- GEOL 306 - Communicating Geoscience Credits: (4)
- SCED 411 - Field Experience in Communicating Science to the Public Credits: (2)

Department-Approved Electives Credits: 8-10

Students must take two additional department-approved electives.

Total Credits: 62-70

Allied Science Requirements Credits: 15

## Required Courses

- MATH 154 - Pre-Calculus Mathematics II Credits: (5)

Select 10 credits from the following:

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- MATH 172-Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)

Total Credits: 77-85

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 127-135

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## Environmental Geological Sciences Major, BS

This major in environmental geological sciences focuses on the interactions between solid Earth and the atmosphere and hydrosphere, including ground water, soils, and climate. The BS program builds on a solid foundation in allied sciences and math and prepares students for graduate school and a variety of careers in the environmental and geological sciences, including environmental consulting and water resources.

Required Courses Credits: (56)

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103 - Geology of Washington Credits: (4)
- OR GEOL 107 - Earth's Changing Surface Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- OR SCED 102 - Integrated Earth and Space Science Credits: (5)
- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 200 - Earth's Evolution and Global Change Credits: (5)
- GEOL 210 - Introduction to Geologic Field Methods Credits: (4)
- GEOL 305- Quantitative Reasoning for Geoscientists Credits: (4)
- GEOL 320 - Rocks and Minerals Credits: (5)
- GEOL 370 - Sedimentology and Stratigraphy Credits: (5)
- GEOL 380 - Natural Hazards Credits: (5)
- GEOL 382 - Earth Resources and Pollution Credits: (4)
- GEOL 384- Ocean, Atmosphere and Climate Interactions Credits: (4)
- GEOL 386-Geomorphology Credits: (5)
- GEOL 445 - Hydrogeology Credits: (5)
- GEOL 487 - End-of-major Review Seminar Credits: (1)
- GEOL 493 - Field Methods in Environmental Geology Credits: (4)

Electives selected from the following - Credits: (18)

- BIOL 362 - Biomes of the Pacific Northwest Credits: (4)
- CHEM 345 - Environmental Chemistry Credits: (5)
- GEOG 361 - Soils Credits: (5)
- GEOG 382 - Hydrology Credits: (5)
- GEOL 306 - Communicating Geoscience Credits: (4)
- GEOL 351-Geology of the Pacific Northwest Credits: (3)
- GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- GEOL 415 - Earthquake Geology and Neotectonics Credits: (5)
- GEOL 423 - The Cryosphere Credits: (5)
- GEOL 425 - Environmental Geochemistry Credits: (5)
- GEOL 430 - Remote Sensing Credits: (5)
- GEOL 434 - Petroleum Geology Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- GEOL 474 - Quaternary Geology Credits: (4)
- GEOL 476 - Advanced Sedimentology Credits: (4)
- GEOL 478 - Volcanology Credits: (5)
- GEOL 483 - Isotope Geochemistry Credits: (5) Must take at least one of the following courses: Credits: (4-5)
- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ECON 462 - Environmental and Resource Economics Credits: (5)
- ENST 303 - Environmental Management Credits: (5)
- ENST 310 - Energy and Society Credits: (5)
- ENST 330 - Environmental Leadership and Advocacy Credits: (5)
- GEOG 305 - Introduction to Land Use Planning Credits: (5)
- GEOG 373 - Water Resources Credits: (4)
- GEOG 445 - Environmental Law Credits: (5)
- HIST 454 - American Environmental History Credits: (5)
- PHIL 306 - Environmental Ethics Credits: (5)

Total Required Course Credits: 74
Allied Science Requirements for Bachelor of Science
Environmental Geological Sciences Degree

Chemistry - Credits: (15)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Physics - Credits: (10)

- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)

Mathematics - Credits: (10)

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Total Allied Science Credits: 35

Total Credits: 109

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Geology Major, BS

The BS in geology prepares students for graduate school and careers in solid-earth geosciences and other scientific fields. The program includes required courses across the breadth of the geosciences and allows for focused study in Earth structure and tectonics, hazards and resources, Earth materials or climate and surface processes. The core required geoscience courses build on a solid foundation in allied sciences and math and culminate in a capstone field mapping experience, thus preparing students for graduate school and a variety of careers in the geosciences, including geotechnical consulting and in Washington. The BS degree is also appropriate for students who wish to continue in other quantitative scientific fields or directions (e.g., medical school).

Required Courses Credits: 52

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103 - Geology of Washington Credits: (4)
- OR GEOL 107 - Earth's Changing Surface Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- OR SCED 102 - Integrated Earth and Space Science Credits: (5)
- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 200 - Earth's Evolution and Global Change Credits: (5)
- GEOL 210 - Introduction to Geologic Field Methods Credits: (4)
- GEOL 305 - Quantitative Reasoning for Geoscientists Credits: (4)
- GEOL 320 - Rocks and Minerals Credits: (5)
- GEOL 346 - Mineralogy Credits: (5)
- GEOL 360 - Structural Geology Credits: (5)
- GEOL 370 - Sedimentology and Stratigraphy Credits: (5)
- GEOL 384 - Ocean, Atmosphere and Climate Interactions Credits: (4)
- GEOL 487 - End-of-major Review Seminar Credits: (1)
- GEOL 489 - Geologic Field Methods Credits: (6-12)

Department-Approved Electives Credits: 17-20
Select at least four department-approved electives that total at least 17 credits. The groups of courses shown below are meant to offer guidance to students who wish to specialize in a subdiscipline or take courses across the breadth of the geological sciences. Up to 4 credits of department-approved seminars and research may count towards elective units as well.

Climate and Surface Processes

- GEOL 377 - Regional Natural History Credits: (2)
- AND GEOL 377LAB - Regional Natural History Credits: (3)
- GEOL 386-Geomorphology Credits: (5)
- GEOL 423 - The Cryosphere Credits: (5)
- GEOL 441 - Climate Variability and Climate Change Credits: (5)
- GEOL 474 - Quaternary Geology Credits: (4)

Earth Materials

- GEOL 475 - Petrography and Petrogenesis Credits: (5)
- GEOL 476 - Advanced Sedimentology Credits: (4)
- GEOL 478 - Volcanology Credits: (5)
- GEOL 483 - Isotope Geochemistry Credits: (5)
- GEOL 484 - Geochronology Credits: (5)

Earth Structure and Tectonics

- GEOL 351-Geology of the Pacific Northwest Credits: (3)
- GEOL 432 - Field Geodetic Techniques Credits: (3)
- GEOL 453 - Seismology Credits: (5)
- GEOL 456 - Geodynamics Credits: (5)

Hazards and Resources

- GEOL 380-Natural Hazards Credits: (5)
- GEOL 382 - Earth Resources and Pollution Credits: (4)
- GEOL 415 - Earthquake Geology and Neotectonics Credits: (5)
- GEOL 425 - Environmental Geochemistry Credits: (5)
- GEOL 434 - Petroleum Geology Credits: (5)
- GEOL 445 - Hydrogeology Credits: (5)

Allied Science Requirements for Bachelor of Science Degree Credits: 30

Chemistry - Credits: (10)

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)

Physics - Credits: (10)

- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)

Mathematics - Credits: (10)

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Total Credits: 99-102
College and Department Information
Geological Sciences Department
College of the Sciences

## Geology Minor

The geology minor allows students to pursue their interests within the department's course offerings and can be combined with virtually and other major. It may be particularly useful for students in anthropology, biology, chemistry, computer science, economics, geography, history, physics, or science education.

Required Courses ( 15 credits)

- GEOL 101 - Introduction to Geology Credits: (4)
- OR GEOL 103 - Geology of Washington Credits: (4)
- OR GEOL 107 - Earth's Changing Surface Credits: (4)
- OR GEOL 108 - Earth and Energy Resources Credits: (4)
- OR SCED 102 - Integrated Earth and Space Science Credits: (5)
- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 200 - Earth's Evolution and Global Change Credits: (5)
- GEOL 320 - Rocks and Minerals Credits: (5)

Elective Courses (18-20 credits)
Select a set of department-approved electives in geological sciences that total 18-20 credits.

Total Credits: 33-35
Department and College Information
Geological Sciences Department
College of the Sciences

## Health Sciences <br> Department

College of Education and Professional Studies
Ellensburg
Dorothy Purser Hall., room 101
Mail Stop 7571
509-963-1912
www.cwu.edu/health-science
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

## Chair

Ethan A. Bergman, PhD, RDN, CD, FADA, FAND

## Clinical Physiology Program Director

Vincent M. Nethery, PhD

## Emergency Medical Services- EMS Paramedicine Program

## Director

Keith A. Monosky, PhD

## Exercise Science Program Director

Timothy R. Burnham, PhD

## Food and Nutrition Sciences Program Director

David L. Gee, PhD

## Medical Director

Kenneth Lindsey

## Public Health Director

Rebecca Pearson, PhD, MPH

## Professors

Ethan A. Bergman, PhD, RDN, CD, FADA, FAND, nutrition and dietetics
Timothy R. Burnham, PhD, clinical physiology, sport physiology, human anatomy
Leonardo J. D'Acquisto, EdD, sport physiology, kinesiology, human anatomy
James DePaepe, PhD, clinical and sport physiology, neurophysiology, and research
David L. Gee, PhD, nutrition and metabolism, nutrition and chronic diseases, nutritional epidemiology
Susan Hawk, PhD, RDN, dietetics, clinical nutrition
Melody Madlem, EdD, public health
Keith A. Monosky, PhD, MPM, EMT-P, emergency medical services, emergency services management, health policy Vincent M. Nethery, PhD, clinical physiology, sport physiology, environmental physiology, human anatomy

## Assistant Professors

Tishra Beeson, PhD, MPH, public health
Eric Foch, PhD
Casey Mace-Firebaugh, PhD, MPH, public health
Dana Ogan, MS, RDN, CD, dietetic internship director
Rebecca Pearson, PhD, MPH, public health
Kelly Pritchett, PhD, RDN sports nutrition
Robert Pritchett, PhD
Karen Roemer, PhD, biomechanics, clinical mechanics, kinematics and kinetics
Nicole Stendell-Hollis, PhD, MS, RDN, obesity, nutrition and chronic disease

## Staff

Bryan Contreras, MS, instructional classroom support technician- clinical physiology and exercise science Lucinda Engel, instructional classroom support technician- food science
Vacant, Program Coordinator, EMS-Paramedicine
Jan Clark, secretary supervisor

## Department Information

The Department of Nutrition, Exercise, and Health Sciences
prepares students in a variety of professions that focus on the physical and functional abilities of humans. Human functioning is the overriding theme of all curricula offerings. In addition to didactic aspects, many classes provide experiential learning through structured laboratories, practicums, and internships. All programs provide opportunities to interact with faculty and to participate in both undergraduate and graduate research.

## Health Sciences offers the following undergraduate degrees:

Bachelor of Science: Clinical Physiology
Bachelor of Science: Exercise Science
Bachelor of Science: FSN-Dietetics Specialization
Bachelor of Science: FSN-Foods and Nutrition Specialization

## Bachelor of Science: Paramedicine

Public Health Major - Community Health Specialization
Public Health Major - Pre-nursing in Public Health
Specialization
Public Health - Community Health Education Minor
Health Sciences offers the following supporting minors:
Exercise Science
Athletic Training
Nutrition
Food Service Management

## Health Sciences offers the following certificate programs:

## Paramedic

Emergency Medical Technician
Dietetic Internship (Accredited by the Academy of Nutrition and Dietetics Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Health Sciences offers the following graduate degrees - (For details: See Graduate Studies and Research section)
Master of Science: Exercise Science
Master of Science: Nutrition

## Admission Requirements

To be admitted to a major or minor, all students must:

- Meet with an advisor in the specific program of interest. Because of the variety of options and the preadmission requirements of programs, it is advisable to meet with an advisor early to plan the program schedule and to facilitate timely graduation.
- Complete specific pre-admission requirements (see individual programs).
- Complete and file a major application with the department office, signed by the academic advisor and the program director. Application forms can be obtained from the advisor or the department office.
- Complete and file with the department office, a program of study that lists the required and elective courses necessary for program completion. Course of study forms can be obtained from the academic advisor.


## Student Scholarly Activities:

The department is student oriented and all programs provide a wide range of laboratory and field experiences as part of specific degree requirements and degree options. Students who engage early in optional learning experiences gain a better understanding of their profession, are more competitive in the
job market, and increase their chances for graduate school admission.

## Student Organizations:

Exercise Science Club: All EXSC students are required to join the EXSC Club. This student-run organization meets regularly to discuss academic planning and career opportunities, performs service activities, and plans recreational outings.

Nutrition Science Club: The NSC provides opportunities for students to use their knowledge and skills in performing service activities, learn about career opportunities, discuss academic planning, and engage in recreational activities.

EMT Club: The EMT Club is a student organization that is purposed to provide basic life support services to on-campus activities as a means of first-line-response. The EMT Club is comprised of current students that are certified emergency medical technicians. The EMT Club is supervised by a faculty member of the Paramedic Program and is provided the necessary emergency medical equipment and continuing education to provide essential emergency medical services.

## Fees:

Additional fees are assessed for many of the department's laboratory and field experience courses. These fees are used to partially support materials purchased and transportation costs.

## Graduation Requirements

- Satisfactory completion of all requirements of the university and of the specific degree program of study.
- Application for the bachelor's degree must be filed by the second Friday of the quarter preceding the quarter in which the degree is to be received. Instructions and deadlines are available through Registrar Services.


## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/health-science or by contacting the department directly.

## Clinical Physiology Major, BS

## Program Director

Vincent M. Nethery, PhD

## Faculty

Timothy Burnham PhD
Leonardo D'Acquisto, EdD
James DePaepe, PhD
Eric Foch, PhD
Vincent Nethery, PhD
Kelly Pritchett, PhD, RDN
Robert Pritchett, PhD
Karen Roemer, PhD
The bachelor of science - clinical physiology specifically
prepares students to enter graduate or specialized postbaccalaureate professional programs in critical high-demand, health-care arenas including physical and occupational therapy, physicians' assistants, cardiopulmonary rehabilitation, sports medicine-athletic training, chiropractic medicine, and others. This degree also prepares students for advanced graduate study in integrated human and exercise physiology. Most clinical health-care professions require education beyond the bachelor degree level. Additional courses may be needed to satisfy all prerequisites for admission eligibility to some graduate and professional programs.

## A grade of $\mathbf{C}$ or higher is required in all pre-admission,

 required courses, and elective courses in this major.Pre-admission Requirements

- CHEM 111 - Introduction to Chemistry Credits: (4)
- CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- OR CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
AND
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- OR CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
AND
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1)
- OR CHEM 183-General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
AND
- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- OR PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- OR PHYS 181 - General Physics I with Laboratory Credits: (5)

Pre-admission Total Credits: 20

Required Courses

- BIOL 305 - Human Anatomy and Physiology for Health-Related Majors I Credits: (5)
- BIOL 306 - Human Anatomy and Physiology for Health-Related Majors II Credits: (5)
- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EXSC 353 - Physical and Orthopedic Assessment Credits: (4)
- EXSC 370 - Biomechanics Credits: (5)
- EXSC 450 - Physiology of Exercise Credits: (4)
- EXSC 450LAB - Physiology of Exercise Laboratory Credits: (1)
- EXSC 456 - Clinical Physiology Credits: (5)
- EXSC 470 - Clinical Biomechanics Credits: (3)
- EXSC 493 - Clinical Field Experience Credits: (1-15) (minimum of 12 credits)
- EXSC 495B - Practicum: Clinical Credits: (2)


## Total Required Courses Credits: 56

Choose from the following electives:

- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 323 - Microbiology Credits: (5)
- BIOL 353 - Integrative Anatomy Credits: (6)
- EMS 443 - Myocardial Disease and Basic Electrocardiography Credits: (4)
- EMS 444 - Twelve-lead Electrocardiography Credits: (4)
- EXSC 438 - Therapeutic Exercise Credits: (3)
- EXSC 446 - Sports Nutrition Credits: (3)
- EXSC 452 - Therapeutic Modalities Credits: (3)
- NUTR 433 - Macronutrients Credits: (3)
- NUTR 443 - Metabolism and Micronutrients Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)
- PSY 313 - Developmental Psychology Credits: (4)
- PSY 314 - Human Development and the Learner Credits: (4)
- PSY 362 - Introductory Statistics Credits: (5)
- PSY 421 - Human Neuroanatomy Credits: (4)
- PSY 449 - Abnormal Psychology Credits: (4)
- PSY 478 - Behavioral Neuroscience Credits: (4)

Total Elective Credits: 24

Total Credits: 100

Department and College Information

Health Sciences Department
College of Education and Professional Studies

# EMS Paramedicine Major, BS 

## Program Director

Keith A. Monosky, PhD, MPM, EMT-P
Medical Program Director
Jackson Horsley, MD

## Program Coordinator

Vickie Ostrow

## Faculty

Robert Carlson, BA, EMT-P
Steve Chrisman, MS, EMT-P
Rich Elliot, MBA, EMT
Liesl Jones
Dan Limmer, NREMT-P
Keith A. Monosky, PhD, MPM, EMT-P
James Pierce, EMT-P
Lenny Ugaitafa, BS, EMT-P
The EMS paramedicine major is designed for students who plan to become a certified pre-hospital professional in emergency medical services. The paramedicine major provides the graduate with the requisite skill sets for entry-level competence in advanced life support emergency medical services, as well as superior skills in advanced life support and leadership abilities in emergency medical services.

The delivery format includes classroom lectures, group discussions, laboratory skills training, hospital clinical experience with observations and practice, field internships, educational internships, administrative internships, pre-hospital research, and simulated scenario-based exercises of complex patient condition which willfully prepare the student for occupations in advanced emergency medical services. This nationally-accredited program meets all of the national curriculum and Washington State standards.

In addition to general admissions, all applicants must meet specific entrance criteria (including a current EMT certification) and be approved by the paramedic selection committee before being admitted into the program. Admission to CWU does not assure entry into the paramedicine major.

Advanced Standing is an option for currently certified and practicing paramedics to earn their Bachelor of Science degree and EMS Paramedicine. This option is made available only for currently certified paramedics that received their education from accredited institutions and that reside in a state that participates in online instruction with Washington state.

Upon acceptance into the Advanced Standing status of the online EMS Paramedicine program, the student shall be awarded up to 44 credits in experiential learning in the major. The explanation of requirements and the substitution of major courses are listed at www.cwu.edu/health-science/paramedicine.

Completion of the major listed below and other degree requirements leads to the bachelor of science in paramedicine and eligibility to take the National Registry EMTs examination for paramedic certification. For students not seeking a degree, a certification option is available.

Required Courses for Entry:

- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EMS 440-Medical Mathematics and Terminology Credits: (2)

Required Courses

- EMS 335 - Paramedicine I Credits: (4)
- EMS 335LAB - Advanced Clinical Practice I Credits: (2)
- EMS 336 - Paramedicine II Credits: (4)
- EMS 336LAB - Advanced Clinical Practice II Credits: (2)
- EMS 337 - Paramedicine III Credits: (3)
- EMS 337LAB - Advanced Clinical Practice III Credits: (2)
- EMS 350-Paramedicine Instructional Methodologies Credits: (2)
- EMS 430 - Problem-Based Learning I Credits: (4)
- EMS 431 - Problem-based Learning II Credits: (4)
- EMS 441-General Pharmacology for Paramedics Credits: (3)
- EMS 443 - Myocardial Disease and Basic Electrocardiography Credits: (4)
- EMS 444 - Twelve-lead Electrocardiography Credits: (4)
- EMS 451 - Advanced Trauma Care Credits: (3)
- EMS 455 - Introduction to Pathophysiology Credits: (3)
- EMS 459 - Emergencies in Pediatric/Geriatric Care Credits: (3)
- EMS 460 - Research in EMS I Credits: (3)
- EMS 461 - Research in EMS II Credits: (3)
- EMS 465 - Educational Methodologies in EMS Credits: (3)
- EMS 470 - Current Topics in Emergency Medicine Credits: (3)
- EMS 475 - EMS Response to Terrorism Credits: (3)
- EMS 480 - Financial Analysis of EMS Systems Credits: (3)
- EMS 481- Quality Improvement and Administration of EMS Credits: (3)
- EMS 482 - Systems Analysis of EMS Credits: (4)
- EMS 485 - Strategic Planning for EMS Credits: (3)
- EMS 488 - Health Policy in EMS Credits: (3)
- EMS 489 - Leadership in EMS Credits: (3)
- EMS 493A - Paramedicine Internship I Credits: (3)
- EMS 493B - Paramedicine Internship II Credits: (4)
- EMS 493C - Paramedicine Internship III Credits: (5)


## Total Credits: 105

College and Department Information

Health Sciences Department
College of Education and Professional Studies

# Exercise Science Major, BS 

## Program Director

Timothy Burnham, PhD

## Faculty

Timothy Burnham PhD
Leonardo D'Acquisto, EdD
James DePaepe, PhD
Eric Foch, PhD
Vincent Nethery, PhD
Kelly Pritchett, PhD, RDN
Robert Pritchett, PhD
Karen Roemer, PhD
The Bachelor of Science in Exercise Science prepares students to enter career areas that guide healthy human functioning across the general health to athletic performance spectrum. Potential employment encompasses corporate health-wellness programs, private health-fitness organizations, nonprofit/community activity centers, institutional recreation centers, athlete identification and development programs, personal training, and specialty strength and conditioning coaching.

## Grade Requirement

A grade of " C " or higher is required for all courses in major and minor programs.

Required Courses Credits: 68

- BIOL 201 - Human Physiology Credits: (5)
- EXSC 254 - Foundations of Fitness Credits: (3)
- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EXSC 352 - Assessment and Treatment of Athletic Injuries Credits: (4)
- EXSC 371 - Movement Analysis Credits: (5)
- EXSC 446 - Sports Nutrition Credits: (3)
- EXSC 450 - Physiology of Exercise Credits: (4)
- EXSC 450LAB - Physiology of Exercise Laboratory Credits: (1)
- EXSC 455 - Fitness Assessment and Exercise Prescription Credits: (4)
- EXSC 455LAB - Fitness Assessment and Exercise Prescription Laboratory Credits: (1)
- EXSC 471 - Sports Biomechanics Credits: (3)
- EXSC 480 - Science of Resistance Exercise Credits: (4)
- EXSC 490 - Cooperative Education Credits: (1-12) (Must be taken for 12 credits)
- EXSC 495A - Practicum: Fitness Centers/Clubs Credits: (2)
- OR EXSC 495C - Practicum: Management Credits: (2)
- EXSC 495D - Practicum: Laboratory Assessment Credits: (2)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)

Department-Approved Electives Credits: 28

- BUS 401 - Business Boot Camp Credits: (1)
- COM 345 - Business and Professional Speaking Credits: (4)
- MGT 380-Organizational Management Credits: (5)
- MGT 394 - Legal Considerations in Sport Business Credits: (5)
- MGT 395 - Leadership in Business Organizations Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- MKT 370 - Sports Marketing and Sponsorship Credits: (5)
- MKT 371 - Sponsorship and Promotion in Sport Business Credits: (5)
- MKT 372 - Revenue Generation and Finance in Sport Business Credits: (5)
- NUTR 350 - Weight Management Credits: (3)
- PSY 401 - Psychology of Sport Credits: (4)

Total Credits: 96

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Food Science and Nutrition BS, Dietetics Specialization

Food Science and Nutrition Core

## Program Director

David Gee, PhD

## Faculty

Ethan Bergman, PhD, RDN
David Gee, PhD
Susan Hawk, PhD, RDN
Dana Ogan, MS, RDN, CD
Kelly Pritchett, PhD, RDN, CSSD
Nicole Stendell-Hollis, PhD, RDN
The bachelor of science in food science and nutrition prepares students for employment or advanced study in one of several professions in the broad area of foods and nutrition. To complete degree requirements, students must complete the required core courses listed below. Students must also complete courses listed in their chosen specialization (foods and nutrition, dietetics, nutrition science).

## Admission Requirements

Students wishing to attain full admission to the BS in food science and nutrition major must meet the following requirements:

- Successful completion of NUTR 101, Introduction to Human Nutrition, NUTR 240, Introduction to Foods and NUTR 240LAB, Introduction to Foods Laboratory with a grade of $B(3.0)$ or higher.
- Students must receive a grade of $C(2.0)$ or higher in all of the other major courses.
In addition to the requirements listed above, students wishing to enter any of the food science and nutrition specializations must successfully complete CHEM 111, Introduction to Chemistry, CHEM 111LAB, Chemistry Laboratory or CHEM 181, General Chemistry I and CHEM 181LAB, General Chemistry
Laboratory I, and MATH 100C, Intermediate Algebra, or their equivalents, before being admitted to the major. Students must consult with a major advisor for approval of the program specialization.

Students are highly encouraged to complete at least five credits of NUTR 490, Cooperative Education.

Core Requirements

- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)
- NUTR 344 - Medical Nutrition Therapy I Credits: (3)
- NUTR 345 - Nutrition and the Lifecycle Credits: (5)
- NUTR 350 - Weight Management Credits: (3)
- NUTR 447 - Community Nutrition Credits: (3)

Select either:

- EDCS 312 - Educational Statistics Credits: (4)
- OR PSY 362 - Introductory Statistics Credits: (5)

Total Core Credits: 27-28
Dietetics Specialization

The dietetics specialization is a program accredited by the Accreditation Council Education in Nutrition and Dietetics (ACEND). In addition to those classes required for the Dietetics Specialization, ANTH 130 and PSY 101 are required to meet the knowledge requirements set forth by ACEND, 120 South Riverside Plaza Ste. 2000, Chicago, IL 60606-6995, 312-8990040, ext, 5400). ACEND is a specialized accrediting body recognized by the Council on Post-Secondary Accreditation and the United States Department of Education. Completion of this program qualifies the student to apply for admission to an ACEND accredited Supervised Practice Experience, also known as a dietetic internship. Following this the student is eligible to sit for the registration examination. Passing the registration exam qualifies the graduate to become a registered dietitian nutritionist (RDN).

Prior to being admitted into the dietetics specialization, students shall apply to the BS in food science and nutrition major with a specialization in foods and nutrition and must then complete the core requirements plus the following courses:

- BIOL 201 - Human Physiology Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1)
- OR CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1)
- NUTR 343 - Foods and Nutrition Professionalism Credits: (1)

Total Pre-Specialization Requirement Credits: 21
Additional Courses

In addition to successfully completing all of the prespecialization courses, applicants to this specialization must have CWU/Transfer combined GPA of at least 3.0 at the time of application and a GPA in all of the pre-major classes of 3.0. Students planning on entering the dietetics specialization are encouraged to declare their major in the BS food science and nutrition with a foods and nutrition specialization as early in their studies as possible so that they may be assigned a major advisor and receive proper advising in this field.

- BIOL 220 - Introductory Cell Biology Credits: (5)
- BIOL 322 - Introductory Microbiology Credits: (5)
- OR BIOL 323 - Microbiology Credits: (5)
- NUTR 340 - Management of Food Resources Credits: (2)
- NUTR 340LAB - Management of Food Resources Laboratory Credits: (1)
- NUTR 342 - Quantity Food Production and Service Credits: (4)
- NUTR 342LAB - Quantity Food Production and Service Laboratory Credits: (1)
- NUTR 347 - Nutrition Education and Counseling Credits: (4)
- NUTR 433 - Macronutrients Credits: (3)
- NUTR 440 - Experimental Foods Credits: (2)
- NUTR 440LAB - Experimental Foods Laboratory Credits: (1)
- NUTR 442 - Nutrition Assessment Laboratory Credits: (2)
- NUTR 443 - Metabolism and Micronutrients Credits: (5)
- NUTR 444 - Medical Nutrition Therapy II Credits: (3)
- NUTR 445 - Experimental Food Research Credits: (1)
- NUTR 445LAB - Experimental Food Research Laboratory Credits: (1)
- NUTR 446 - Sports Nutrition Credits: (3)
- NUTR 448 - Food Service Systems Management Credits: (4)

Total Additional Course Credits: 47

Total Credits: 95-96

Additional Information

Students wishing to apply for admission into an ACENDaccredited dietetic internship must be successfully admitted to the Dietetics Specialization, complete the major requirements plus the following two courses: ANTH 130, Introduction to Cultural Anthropology (5) OR ANTH 357, Medical Anthropology: Cross-Cultural Perspectives on Health and Healing (4), and PSY 101, General Psychology (5). These courses may also meet breadth requirements at Central Washington University.

The requirement for CHEM 111, 111LAB, Introduction to Chemistry and Laboratory, may be met by satisfactorily completing CHEM 181, 181LAB, 182, 182LAB, and 183, 183LAB General Chemistry and Laboratory. The requirement for CHEM 112, 112LAB, Introduction to Organic Chemistry and Laboratory, may be met by satisfactorily completing CHEM 361, 361LAB, 362, and 363 Organic Chemistry and Laboratory. The requirement for CHEM 113, 113LAB, Introduction to Biochemistry, may be met by satisfactorily completing CHEM 431, 431LAB and 432, Biochemistry and Laboratory. The requirement for BIOL 201, Human Physiology, may be met by satisfactorily completing BIOL 355, 356, Human Anatomy and Physiology. Students interested in applying to nursing programs following the completion of this degree should take BIOL 355 and BIOL 356 instead of BIOL 201.

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Food Science and Nutrition BS, Foods and Nutrition Specialization

Food Science and Nutrition Core

## Program Director

David Gee, PhD

## Faculty

Ethan Bergman, PhD, RDN
David Gee, PhD
Susan Hawk, PhD, RDN
Dana Ogan, MS, RDN, CD
Kelly Pritchett, PhD, RDN, CSSD
Nicole Stendell-Hollis, PhD, RDN
The bachelor of science in food science and nutrition prepares students for employment or advanced study in one of several professions in the broad area of foods and nutrition. To complete degree requirements, students must complete the required core courses listed below. Students must also complete courses listed in their chosen specialization (foods and nutrition, dietetics, nutrition science).

## Admission Requirements

Students wishing to attain full admission to the BS in food science and nutrition major must meet the following requirements:

- Successful completion of NUTR 101, Introduction to Human Nutrition, NUTR 240, Introduction to Foods and NUTR 240LAB, Introduction to Foods Laboratory with a grade of B(3.0) or higher.
- Students must receive a grade of $\mathrm{C}(2.0)$ or higher in all of the other major courses.
In addition to the requirements listed above, students wishing to enter any of the food science and nutrition specializations must successfully complete CHEM 111, Introduction to Chemistry, CHEM 111LAB, Chemistry Laboratory or CHEM 181, General Chemistry I and CHEM 181LAB, General Chemistry Laboratory I, and MATH 100C, Intermediate Algebra, or their equivalents, before being admitted to the major. Students must consult with a major advisor for approval of the program specialization.

Students are highly encouraged to complete at least five credits of NUTR 490, Cooperative Education.

## Core Requirements

- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)
- NUTR 344 - Medical Nutrition Therapy I Credits: (3)
- NUTR 345 - Nutrition and the Lifecycle Credits: (5)
- NUTR 350 - Weight Management Credits: (3)
- NUTR 447 - Community Nutrition Credits: (3)

Select either:

- EDCS 312 - Educational Statistics Credits: (4)
- OR PSY 362 - Introductory Statistics Credits: (5)

Total Core Credits: 27-28

Foods and Nutrition Specialization
The foods and nutrition specialization prepares students for a wide variety of careers in the food and nutrition industry including food processing companies (quality assurance and product development positions), food distributors, food brokerage companies, restaurant and institutional food service, pharmaceutical sales, and nutrition positions not requiring being a registered dietitian. It is highly recommended that students discuss possible minors with their academic advisor that would complement this specialization and enhance employment opportunities. Possible minors include food service management, exercise science, community health education, business, and administrative management. Students interested in applying to nursing programs following the completion of this degree are recommended to take BIOL 355 and BIOL 356, Human Anatomy and Physiology, instead of BIOL 201, Human Physiology and BIOL 220, Introductory Cell Biology, plus BIOL 322, Introductory Microbiology.

## Required Courses

- BIOL 201 - Human Physiology Credits: (5)
- CHEM 111 - Introduction to Chemistry Credits: (4)
- AND CHEM 111LAB - Introductory Chemistry Laboratory Credits: (1) OR
- CHEM 181 - General Chemistry I Credits: (4)
- AND CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1)
- NUTR 340 - Management of Food Resources Credits: (2)
- NUTR 340LAB - Management of Food Resources Laboratory Credits: (1)
- NUTR 342 - Quantity Food Production and Service Credits: (4)
- NUTR 342LAB - Quantity Food Production and Service Laboratory Credits: (1)
- NUTR 343 - Foods and Nutrition Professionalism Credits: (1)
- NUTR 347 - Nutrition Education and Counseling Credits: (4)
- NUTR 433 - Macronutrients Credits: (3)
- NUTR 440 - Experimental Foods Credits: (2)
- NUTR 440LAB - Experimental Foods Laboratory Credits: (1)
- NUTR 445 - Experimental Food Research Credits: (1)
- NUTR 445LAB - Experimental Food Research Laboratory Credits: (1)
- NUTR 446 - Sports Nutrition Credits: (3)
- NUTR 448 - Food Service Systems Management Credits: (4)

Total Required Course Credits: 48

Total Credits: 75-76

College and Department Information
Health Sciences Department
College of Education and Professional Studies

# Public Health BS, Population Health Specialization 

Public Health Core

## Program Director

Rebecca Pearson, PhD, MPH

## Program Information

The public health profession focuses on preventing disease, addressing inequities and developing policies and programs that help communities achieve optimal health and well-being. Our program aims to educate and empower the emerging generation of public health leaders. The Bachelor of Science in Public Health prepares students for graduate work or careers in the field and exposes them to evidence-based research and practice experiences.

## Admission Requirements

To be admitted to the public health program a student must meet with and be signed in by a member of the public health faculty.

## Graduation Requirements

Students seeking the Bachelor of Science in Public Health must earn a grade of C or higher in all core public health courses.

## Program Requirements

Public health majors will complete the core coursework and select a specialization in either Population Health or PreNursing. All majors are also required to complete a 400 -hour internship experience.

Special Requirements (other than departmental)
ENG 101 and ENG 102 must be completed prior to enrollment in PUBH 240.

## Public Health Core Requirements

- PUBH 230 - Foundations of Public Health Credits: (3)
- PUBH 240 - Writing in Public Health Credits: (3)
- PUBH 250 - Introduction to Health Policy and Systems Credits: (3)
- PUBH 310 - Community Health Credits: (3)
- PUBH 311 - Cross Cultural Practices for Health and Medicine Credits: (4)
- PUBH 317 - Global Health Issues and Solutions Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- PUBH 324 - Infectious and Non-infectious Disease Credits: (4)
- PUBH 375 - Theories of Health Behavior Credits: (4)
- PUBH 380 - Epidemiology Credits: (4)
- PUBH 422 - Community Health Promotion and Education Credits: (4)
- PUBH 445 - Professionalism in Public Health Credits: (1)
- PUBH 460 - Public Health Ethics Credits: (3)
- PUBH 470 - Population Health Assessment and Research Credits: (5)
- PUBH 471 - Program Planning Credits: (4)
- PUBH 472 - Program Implementation and Evaluation Credits: (4)
- PUBH 490 - Cooperative Education Credits: (1-12) (Must be taken for 10 credits)

Total Core Credits: 67
Population Health Specialization

Population health represents the area of study and practice focusing on the determinants and distribution of health across different groups of individuals. Understanding issues and situations that harm people's potential for health, well-being, and quality of life enables public health professionals to develop effective strategies to improve outcomes. The population health specialization prepares students for graduate study or career work with a variety of populations through diverse course offerings.

Department-Approved Specialization Electives

## Students must complete a minimum of 23 credits from the following list of electives:

(Students may also seek advisor approved electives outside of this list)

- HED 210 - Drugs and Health Credits: (3)
- HED 387 - Principles of Fitness and Stress Management Credits: (3)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 318 - The Politics of Food and Health Credits: (3)
- OR PUBH 318 - The Politics of Food and Health Credits: (3)
- PUBH 209 - Consumer Health Credits: (4)
- PUBH 351 - Community Building Strategies for Public Health Credits: (4)
- PUBH 370 - Contemporary Issues in Public Health Credits: (4)
- PUBH 409-Community Mental Health Issues and Strategies Credits: (3)
- PUBH 412 - Aging and Public Health Credits: (3)
- PUBH 413 - Health Disparities in Rural and Frontier Communities Credits: (3)
- PUBH 420 - Women's Health Issues Credits: (4)
- PUBH 424 - Maternal and Child Health Credits: (3)
- PUBH 440 - Public Health Communication Credits: (3)
- PUBH 448 - Sexual Health Credits: (4)
- PUBH 465 - Undergraduate Research Preparation for Public Health Credits: (2)
- PUBH 475-Community Health Administration Credits: (3)
- PUBH 479 - Senior Seminar in Public Health Credits: (1)
- PUBH 480 - Grant Seeking and Administration in Public Health Credits: (3)

Total Specialization Credits: 23

Total Credits: 90

College and Department Information

Health Sciences Department
College of Education and Professional Studies

# Public Health BS, Pre-Nursing Specialization 

Public Health Core

## Program Director

Rebecca Pearson, PhD, MPH

## Program Information

The public health profession focuses on preventing disease, addressing inequities and developing policies and programs that help communities achieve optimal health and well-being. Our program aims to educate and empower the emerging generation of public health leaders. The Bachelor of Science in Public Health prepares students for graduate work or careers in the field and exposes them to evidence-based research and practice experiences.

## Admission Requirements

To be admitted to the public health program a student must meet with and be signed in by a member of the public health faculty.

## Graduation Requirements

Students seeking the Bachelor of Science in Public Health must earn a grade of C or higher in all core public health courses.

## Program Requirements

Public health majors will complete the core coursework and select a specialization in either Population Health or PreNursing. All majors are also required to complete a 400 -hour internship experience.

## Special Requirements (other than departmental)

ENG 101 and ENG 102 must be completed prior to enrollment in PUBH 240.

Public Health Core Requirements

- PUBH 230 - Foundations of Public Health Credits: (3)
- PUBH 240 - Writing in Public Health Credits: (3)
- PUBH 250 - Introduction to Health Policy and Systems Credits: (3)
- PUBH 310 - Community Health Credits: (3)
- PUBH 311 - Cross Cultural Practices for Health and Medicine Credits: (4)
- PUBH 317-Global Health Issues and Solutions Credits: (4)
- PUBH 320 - Environmental Health Credits: (4)
- PUBH 324 - Infectious and Non-infectious Disease Credits: (4)
- PUBH 375 - Theories of Health Behavior Credits: (4)
- PUBH 380 - Epidemiology Credits: (4)
- PUBH 422 - Community Health Promotion and Education Credits: (4)
- PUBH 445 - Professionalism in Public Health Credits: (1)
- PUBH 460 - Public Health Ethics Credits: (3)
- PUBH 470 - Population Health Assessment and Research Credits: (5)
- PUBH 471 - Program Planning Credits: (4)
- PUBH 472-Program Implementation and Evaluation Credits: (4)
- PUBH 490 - Cooperative Education Credits: (1-12) (Must be taken for 10 credits)

Total Core Credits: 67

Pre-Nursing Specialization
The pre-nursing specialization allows future professionals to enter nursing school with a solid background in public health theory and practice. CWU does not offer a degree program in nursing, but offers prerequisite courses suited for admission to professional nursing programs available across Washington.

IMPORTANT: Students MUST take responsibility for understanding current requirements of their chosen nursing program before applying to it. It is recommended and expected that students considering nursing careers will contact advisors at nursing programs of interest and ensure their own readiness for admission. Please note that CHEM 111 and CHEM 111LAB are pre-requisites for CHEM 112; students must seek information from specific departments regarding scheduling of these and other science courses. Note too that PSY 101 is a prerequisite for PSY 313; students pursuing the pre-nursing specialization are responsible for understanding requirements for enrollment in specific courses. Students choosing the pre-nursing specialization should take CHEM 111 and CHEM 111LAB at their earliest opportunity; additionally, students choosing the pre-nursing specialization are advised to choose PSY 101 as a
general education fulfillment, given that it is a prerequisite for PSY 313.

Specialization Required Courses

- BIOL 220 - Introductory Cell Biology Credits: (5)
- BIOL 322 - Introductory Microbiology Credits: (5)
- BIOL 355 - Human Anatomy and Physiology I Credits: (5)
- BIOL 356 - Human Anatomy and Physiology II Credits: (5)
- CHEM 112 - Introduction to Organic Chemistry Credits: (4)
- CHEM 112LAB - Introduction to Organic Chemistry Laboratory Credits: (1)
- CHEM 113 - Introduction to Biochemistry Credits: (4)
- CHEM 113LAB - Introduction to Biochemistry Laboratory Credits: (1)
- PSY 313 - Developmental Psychology Credits: (4)
- PSY 362 - Introductory Statistics Credits: (5) NOTE: CHEM 111 and CHEM 111LAB are prerequisites for CHEM 112; PSY 101 is a prerequisite for PSY 313; thus, 10 additional credits beyond those in the major itself are required for students pursuing this specialization.

Total Required Specialization Credits: 49

Total Credits: 116

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Exercise Science Minor

This minor is designed primarily for those individuals who major in disciplines such as nutrition, biology, physical education, public health, and business. Courses in this minor may also be used to satisfy requirements in other major programs. For information, please contact Tim Burnham, tim.burnham@cwu.edu.

Required Courses Credits: 20

- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EXSC 371 - Movement Analysis Credits: (5)
- EXSC 450 - Physiology of Exercise Credits: (4)
- EXSC 450LAB - Physiology of Exercise Laboratory Credits: (1)

Select from two of the following: Credits: 4-8

- EXSC 446 - Sports Nutrition Credits: (3)
- EXSC 455 - Fitness Assessment and Exercise Prescription Credits: (4)
- EXSC 455LAB - Fitness Assessment and Exercise Prescription Laboratory Credits: (1)
- EXSC 471 - Sports Biomechanics Credits: (3)
- PSY 401 - Psychology of Sport Credits: (4)

Total Credits: 24-28

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Food Service Management Minor

This minor is designed primarily for students earning degrees in business administration or in tourism management that will allow them better access to careers in food service management. Courses in this 26- to 27 -credit minor may also be used to satisfy requirements in other major programs. This minor may not be used for students earning a BS degree in food science and nutrition or a BAS in food service management.

Required Courses: Credits (22)

- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- NUTR 340 - Management of Food Resources Credits: (2)
- NUTR 342 - Quantity Food Production and Service Credits: (4)
- NUTR 448 - Food Service Systems Management Credits: (4)
- NUTR 490 - Cooperative Education Credits: (1-12) (Must be taken for at least 5 credits)

Department-approved electives Credits (4-5)

- MGT 380- Organizational Management Credits: (5)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)
- NUTR 340LAB - Management of Food Resources Laboratory Credits: (1)
- NUTR 342LAB - Quantity Food Production and Service Laboratory Credits: (1)
- NUTR 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)

Total Credits: 26-27

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Nutrition Minor

This program is designed primarily for those individuals in other majors who desire a more in-depth study of nutrition. This program is intended for students in majors such as exercise science, family studies, physical and health education, and public health. This minor may also be of interest for students in pre-professional programs including pre-medicine, pre-dentistry, pre-veterinary, and pre-physical therapy. Courses in this minor may also be used to satisfy requirements in other major programs.

Students wishing to attain full admission to the minor must meet the following requirements: Successful completion of NUTR 101 - Introduction to Human Nutrition, NUTR 240 -
Introduction to Foods, and NUTR 240LAB- Introduction to Foods Laboratory with a grade of B (3.0) or higher. Students must receive a grade of $\mathrm{C}(2.0)$ or higher in all other minor courses.

## Required Courses

- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- NUTR 240 - Introduction to Foods Credits: (2)
- NUTR 240LAB - Introduction to Foods Laboratory Credits: (2)
- NUTR 340 - Management of Food Resources Credits: (2)
- NUTR 340LAB - Management of Food Resources Laboratory Credits: (1)
- NUTR 345 - Nutrition and the Lifecycle Credits: (5)
- NUTR 350 - Weight Management Credits: (3)

Department-approved Electives - Credits: (3-5)

- NUTR 436 - Theory and Treatment of Eating Disorders Credits: (3)
- NUTR 347 - Nutrition Education and Counseling Credits: (4)
- NUTR 446 - Sports Nutrition Credits: (3)
- NUTR 447 - Community Nutrition Credits: (3)
- NUTR 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)

Total Credits: 23-25

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Physical-Rehabilitation Therapy Minor

The minor provides knowledge and skills related to physicalrehabilitative therapies: however, additional course work in
specialized programs is required to obtain certification and licensure in order to practice. Students interested in becoming certified and licensed should contact the professional associations of interest for additional information. This minor may be of interest for students in a wide variety of preprofessional healthcare programs. Courses in this minor may also be used to satisfy requirements in other major programs. For information, please contact Vince Nethery, netheryv@cwu.edu.

Required Courses (a grade of C or higher is required in all courses in this minor)

- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EXSC 352 - Assessment and Treatment of Athletic Injuries Credits: (4)
- EXSC 353 - Physical and Orthopedic Assessment Credits: (4)
- EXSC 370 - Biomechanics Credits: (5)
- EXSC 438 - Therapeutic Exercise Credits: (3)
- EXSC 446 - Sports Nutrition Credits: (3)
- EXSC 450 - Physiology of Exercise Credits: (4)
- EXSC 450LAB - Physiology of Exercise Laboratory Credits: (1)
- EXSC 452 - Therapeutic Modalities Credits: (3)
- EXSC 470 - Clinical Biomechanics Credits: (3)

Total Credits: 40

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## Public Health Minor

The minor in public health is an excellent supporting option for individuals interested in the health and human services fields. Students will gain insight into public health settings, approaches, and processes. Students from a wide variety of majors may find a public health minor useful. A public health minor may be particularly well suited for students studying communication, economics, law and justice, nutrition, pre-medicine, psychology, or sociology.

Required Courses Credits: 17

- PUBH 230 - Foundations of Public Health Credits: (3)
- PUBH 250 - Introduction to Health Policy and Systems Credits: (3)
- PUBH 310 - Community Health Credits: (3)
- PUBH 311 - Cross Cultural Practices for Health and Medicine Credits: (4)
- PUBH 375 - Theories of Health Behavior Credits: (4)

Department-Approved Electives Credits: 12
Students may choose any 12 credits of advisor approved PUBH credits.

Total Credits: 29

College and Department Information

Health Sciences Department
College of Education and Professional Studies

## History Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 100
Mail Stop 7553
509-963-1655
www.cwu.edu/history
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

Chair
Roxanne Easley, PhD

## Professors

Roxanne Easley, PhD, Russia, Eastern Europe
Daniel Herman, PhD, U.S. pre-1877, U.S. West, Native
American
Jason Knirck, PhD, Ireland, Britain, British Empire
Marilyn Levine, PhD, Modern China
Stephen Moore, PhD, Pacific Northwest, foreign relations, social studies education
Marji Morgan, PhD, 19th century British

## Associate Professors

Brian Carroll, PhD, U.S. Colonial, American Revolution, Native American
Jason Dormady, PhD, Modern Mexico and Latin America, U.S. Borderlands

## Assistant Professors

Chong Eun Ahn, PhD, Modern East Asia
Lacy Ferrell, PhD, Africa

## Lecturers

Kenneth Munsell, MA
John Streepy, MA

## Emeritus Professors

Karen J. Blair, PhD, 20th century U.S., Women
Beverly Heckart, PhD, Germany, Europe
Zoltan Kramar, PhD, Ancient World
Larry Lowther, PhD, Colonial and Revolutionary America
Kent Richards, PhD, American West, Pacific Northwest

## Staff

K. Angie Hill, secretary

## Department Information

The history faculty offers courses leading to bachelor of arts and master of arts.

Students who declare a major in history must register with the department.

## History Honors Program

The Department awards Honors status to qualified history majors. To qualify for the program, students must meet the following requirements:

- A history major (small plan, large plan or History Social Studies Teaching)
- A GPA of 3.5 in history courses and 3.25 overall
- A year of 200- or 300-level coursework in a foreign language OR a credited study abroad trip
- An honors research paper (30-page minimum) on a historical topic. This paper may be started in HIST 481 or another upper division history class and may require additional independent study credits to complete. A committee of three faculty members will judge whether the paper meets departmental standards for honors. A Douglas Honors College thesis with a faculty mentor in the history department will also count for this requirement.
Students who complete the above requirements will graduate with departmental honors. Please contact the department chair for more information.


## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/history or by contacting the department directly.

## History Major (Large Plan), BA

(Note: It is recommended that students who plan to enter graduate school should complete two years of a world language at the college level.)

Required Courses
Lower-Division Credits: 20

Select 20 credits from the following:
World Civilization

- HIST 101 - World History to 1500 Credits: (5)
(Western civilization may be substituted)
- HIST 102 - World History: 1500-1815 Credits: (5)
(Western civilization may be substituted)
- HIST 103 - World History Since 1815 Credits: (5) (Western civilization may be substituted)

United States History

- HIST 143 - United States History to 1865 Credits: (5)
- HIST 144 - United States History Since 1865 Credits: (5)

Upper-Division Credits: 54

- HIST 302 - Historical Methods Credits: (5) (Students must earn a minimum grade of C as a major requirement)
- HIST 481 - Senior Thesis Credits: (4) (Students must earn a minimum grade of C as a major requirement)
- Upper-division United States History Credits: (5)
- Upper-division European History Credits: (5)
- Upper-division African, Asian, Middle Eastern, or Latin American History Credits: (10)
- Upper-division History Electives Credits: (25)

Total Credits: 74

College and Department Information

History Department
College of Arts and Humanities

## History Major (Small Plan), BA

(Note: It is recommended that students who plan to enter graduate school should complete two years of a world language at the college level.)

Required Courses

Lower-Division Credits: 20
Select 20 credits from the following:

World Civilization

- HIST 101 - World History to 1500 Credits: (5) (Western civilization may be substituted)
- HIST 102 - World History: 1500-1815 Credits: (5) (Western civilization may be substituted)
- HIST 103 - World History Since 1815 Credits: (5) (Western civilization may be substituted)


## United States History

- HIST 143 - United States History to 1865 Credits: (5)
- HIST 144 - United States History Since 1865 Credits: (5)

Upper-Division Credits: 39

- HIST 302 - Historical Methods Credits: (5) (Students must earn a minimum grade of C as a major requirement)
- HIST 481 - Senior Thesis Credits: (4) (Students must earn a minimum grade of C as a major requirement)
- Upper-division United States History Credits: (5)
- Upper-division European History Credits: (5)
- Upper-division African, Asian, Middle Eastern or Latin American History Credits: (10)
- Upper-division History Electives Credits: (10)

Total Credits: 59*
(NOTE: *Students with fewer than 60 credits must have a minor or another major in order to graduate.

College and Department Information
History Department
College of Arts and Humanities

## History Social Studies Teaching, BA

This major satisfies the endorsements for history and social studies. This major is designed for students in the secondary Teacher Training Program. Students taking this major are required to apply to the Teacher Certification Program and complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

## Required Courses

- HIST 301 - Pacific Northwest History Credits: (5)
- HIST 302 - Historical Methods Credits: (5) (Students must earn a minimum grade of C as a major requirement)
- HIST 421 - Methods and Materials in the Social Studies, Secondary Credits: (5) (Prior completion of EFC 340 recommended. Students must be admitted to the Teacher Preparation Program prior to enrolling in this course).
- HIST 481 - Senior Thesis Credits: (4) (Students must earn a minimum grade of C as a major requirement)
- POSC 210 - American Politics Credits: (5)

Select from the following - Credits: 20

- HIST 101 - World History to 1500 Credits: (5) (Western civilization may be substituted)
- HIST 102 - World History: 1500-1815 Credits: (5) (Western civilization may be substituted)
- HIST 103 - World History Since 1815 Credits: (5) (Western civilization may be substituted)
- HIST 143 - United States History to 1865 Credits: (5)
- HIST 144 - United States History Since 1865 Credits: (5)

Select from the following - Credits: 15

- Upper-division U.S. History Credits: (5)
- Upper-division European History Credits: (5)
- Upper-division African, Asian, Middle Eastern, or Latin American History Credits: (5)

Select from the following - Credits: 5

- ECON 101 - Economic Issues Credits: (5)
- ECON 102 - World Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)

Select from the following - Credits: 5

- ANTH 107 - Being Human: Past and Present Credits: (5)
- SOC 101 - Social Problems Credits: (5)
- SOC 107 - Principles of Sociology Credits: (5)

Select from the following - Credits: 4-5

- GEOG 101 - World Regional Geography Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 304 - Economic Geography Credits: (5)
- GEOG 308 - Cultural Geography Credits: (4)
- GEOG 346 - Political Geography Credits: (4)

Select from the following - Credits: 4-5

- GEOG 273 - Geography of Rivers Credits: (5)
- GEOG 352 - Geography of North America Credits: (4)
- GEOG 355 - Geography of the Pacific Northwest Credits: (4)
- GEOG 366 - Geography of the Middle East Credits: (4)
- GEOG 368 - Geography of Middle America Credits: (4)
- GEOG 370 - Geography of South America Credits: (4)
- GEOG 371 - Geography of Europe Credits: (4)
- GEOG 372 - Geography of Russia Credits: (4)
- GEOG 375 - Geography of Asia Credits: (4)

Total Credits: 77-79
Professional Education Program Credits: 50

Professional Education Program
Total Credits: 127-129
College and Department Information
History Department
College of Arts and Humanities

## History Minor

## Required Courses

Select from the following - Credits: 10
World Civilization
Western Civilization may be substituted.

- HIST 101 - World History to 1500 Credits: (5)
- HIST 102 - World History: 1500-1815 Credits: (5)
- HIST 103 - World History Since 1815 Credits: (5)

United States History

- HIST 143 - United States History to 1865 Credits: (5)
- HIST 144 - United States History Since 1865 Credits: (5)

Upper-division History Electives - Credits: 20
Total Credits: 30

College and Department Information

History Department
College of Arts and Humanities

## Humanities Program

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 407
erdmanr@cwu.edu

## Contact Person

Ruthi Erdman, MA

## Faculty

Marna Carroll
Barry Donahue
Ruth Erdman
Kevin Leaverton
Matthew Martinson
Shannon Wilson

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website or by contacting the department directly.

# Individual Studies <br> Program 

College of the Sciences
Ellensburg
Dean Hall, room 130
509-963-1866

## Program Director

Alena Yastchenko

## Program Information

This academic program provides an opportunity for students to develop, with the assistance of a faculty advisor(s), a unique interdisciplinary program of study. Each program of study must be comprised of a coherent curriculum that supports student's stated professional and education goals. Individual Studies majors may be assigned the BA or BS degree as deemed appropriate. The Individual Studies designation and the title of the major will be noted on the diploma and the student's academic transcript (i.e., BS Individual Studies: Aviation Safety).

## Admission Requirements

Applicants must have completed 60 credit hours of study with a minimum 2.5 cumulative GPA and be in academic good standing. All proposal materials must be submitted to the associate dean of the College of the Sciences at least three quarters prior to anticipated graduation. Proposals are subject to review and approval of an advisory committee which meets quarterly.

## Application Procedures

Students wishing to apply to the Individual Studies major must submit a proposal to include an application form with proposed degree title, a statement of purpose, an explanation of the primary learning goals of the major, a listing of courses comprising the major, and support from a faculty liaison. The course of study should include a minimum of 60 credits including at least two separate subject areas; 30 of the credits must be upper division. The proposal will be developed under the guidance of a faculty member during the required IS 200Introduction to Individual Studies course.

## Degree Requirements

Students must earn a minimum grade of $C$ - in each course counted toward fulfilling major requirements and the overall GPA in the major must be a 2.5 .

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found by contacting the department directly.

## Individual Studies

College of the Sciences
Ellensburg
Dean Hall, room 130
509-963-1866

## Program Information

This academic program provides an opportunity for students to develop, with the assistance of a faculty advisor(s), a unique interdisciplinary program of study. Each program of study must be comprised of a coherent curriculum that supports student's stated professional and education goals. Individual Studies majors may be assigned the BA or BS degree as deemed appropriate. The Individual Studies designation and the title of the major will be noted on the diploma and the student's academic transcript (i.e., BS Individual Studies: Aviation Safety).

## Admission Requirements

Applicants must have completed 60 credit hours of study with a minimum 2.5 cumulative GPA and be in academic good standing. All proposal materials must be submitted to the associate dean of the College of the Sciences at least three quarters prior to anticipated graduation. Proposals are subject to review and approval of an advisory committee which meets quarterly.

## Application Procedures

Students wishing to apply to the Individual Studies major must submit a proposal to include an application form with proposed degree title, a statement of purpose, an explanation of the primary learning goals of the major, a listing of courses comprising the major, and support from a faculty liaison. The course of study should include a minimum of 60 credits including at least two separate subject areas; 30 of the credits must be upper division. The proposal will be developed under the guidance of a faculty member during the required IS 200 Introduction to Individual Studies course.

Students must earn a minimum grade of $C$ - in each course counted toward fulfilling major requirements and the overall GPA in the major must be a 2.5 .

## Required Courses

- IS 200 - Introduction to Individual Studies Credits: (1)
- IS 487 - End-of-Program Assessment Credits: (1)
- No more than 15 credits may overlap with a declared minor, second major, of general education requirements.
- No more than 15 credits may be numbered 490.

College and Department Information
College of the Sciences

## Information Technology and Administrative

 Management DepartmentCollege of Education and Professional Studies
Shaw-Smyser Hall, Second Floor - IT Management Division, room 223
Mail Stop 7488
509-963-2611
www.cwu.edu/it-management
See website for how this program may be used for educational and career purposes.

## Faculty and Staff

## Chair

Robert A. Lupton, PhD

## Professors

Lori A. Braunstein, PhD, administrative management Natalie Lupton, PhD, retail management and technology, administrative management
Robert A. Lupton, PhD, retail management and technology Fen Wang, PhD, information technology

## Associate Professors

Chester Claar, PhD, information technology, cybersecurity Jaclyn Krause, PhD, information technology Laura Portolese, DBA, administrative management Hideki Takei, DBA, administrative management, retail management and technology
Robert Trumpy, EdD, LMHC, LCSW, administrative management

## Assistant Professors

Terry Alkire, PhD , administrative management, retail management and technology
Martin Bagaya, PhD, information technology, cybersecurity Julie Bonner, DB, administrative management, information technology
Nathan White, PhD, information technology, cybersecurity

## Lecturers

Wendy Alkire, MBA, administrative management Cathy Anderson, PhD, retail management and technology Debbie Angel, MS, administrative management Peter Anthony, EdD, administrative management Joy Bensinger, PhD, information technology Barbara Bisson, MS, information technology Ellen Bjorge, MBA, information technology Andreas Bohman, MS, CISSP, cybersecurity James Brown, MET, information technology Cathy Bushá, JD, information technology Brandi Carter-Harrington, MEd, administrative management David Douglas, MS, administrative management, retail management and technology
John Durham, MM, information technology Eric Fleischman, MS, MA, CISSP, cybersecurity Elizabeth Fountain, PhD, administrative management Amanda Goertz, MEd, administrative management Kathey Hatfield, MEd, administrative management Kurt Kirstein, EdD, administrative management

Sae Lee, MS, information technology
Terry Linkletter, MS, administrative management, information technology
Kathy McGee, MS, administrative management
Mary Minor, information technology
Jackson Muhirwe, PhD, information technology, cybersecurity Shannon Panattoni, MEd, information technology
Amy Perry, MEd, information technology
Susan Rivera, PhD , administrative management
Amber Simon, MBA, administrative management
Lori Thompson, PhD, administrative management
Angela Unruh, MBA, information technology
Phil Upperman, EdD, administrative management
Charles Wahle, MEd, information technology
Shani Watkins, MEd, administrative management
Deborah Wells, MS, cybersecurity, administrative management
Luke Williams, MBA, administrative management, retail
management and technology

## Staff

Ellen Bjorge, communication consultant
Libby Gibson, secretary supervisor
Elizabeth Henry, program manager
Dawn McReynolds, online academic counselor
Laurie Stehle, director online programs
Bachelor of Science
Information Technology and Administrative Management

## BS-ITAM Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The BS-ITAM is comprised of two complementing areas creating synergy.

1. All BS-ITAM specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## BS-ITAM Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## BS-ITAM Graduation Requirements

The following requirements apply to students seeking the BSITAM degree:

Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree.

Students must earn a minimum grade of C- in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the BS-ITAM

Students seeking the BS-ITAM take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the BSITAM degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

## Network Administration and Management Specialization

Students in this specialization design, construct, and manage the network infrastructure vital to modern business operations. They can make appropriate recommendations for hardware and software, communicate technical information clearly to a variety of audiences, effectively lead teams, and stay current with emerging trends in a rapidly advancing technological environment. The advanced networking administration and management courses are complemented by a core foundation of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, professional selling, customer relationship management, as well as hard skills in database management, web development, and computer applications. Graduates secure positions as network administrators, network analysts, network managers, data communication analysts, network operations analysts, network specialists, network technicians, computer support specialists, and user support specialists.

## Web and Database Administration and Management Specialization

Majors in this specialization gain the skills to plan, lead, and
manage the digital profiles of modern enterprises. Balancing concerns of visual design, user experience, hardware capabilities, and emerging technological developments, these graduates are ready to stand at the nexus of web development teams and maximize their capacity for creativity, innovation, adaptation, and efficiency. The advanced web and database courses are complemented by a core foundation of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, professional selling, customer relationship management, as well as hard skills in computer networking and computer applications. Graduates secure positions as web administrators, database administrators, web designers, database developers, web page developers, database managers, and web masters.

## Retail Management and Technology Specialization

This specialization trains the entrepreneurs and management professionals who develop and grow organizations across multiple channels. Students learn all sides of the retail environment from business basics to marketing and selling products, customer relationship management, branding, and the nuances of e-commerce. The advanced retail management technology courses are complemented by a core foundation of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, professional selling, as well as hard skills in database management, web development, computer networking, and computer applications. Graduates pursue careers in retail environments that infuse information technology in areas such as omni channels, management, selling, distribution and logistics, purchasing, operations, merchandising, buying, entrepreneurship, and small business ownership.

## Administrative Management Specialization

This specialization develops leaders ready to meet the administrative needs of any organization by combining technical knowledge with skills in leadership and supervision, effective business practices, project management, and communication. Administrative management majors become skilled problemsolvers and innovators, adapting to the changing needs of modern enterprise. The advanced administrative management courses are complemented by a core foundation of relevant and current human-centered skills in business communications, financial management, ethics, professional selling, customer relationship management, as well as hard skills in database management, web development, computer networking, and computer applications. The need for graduates with these skills crosses all types of business including agriculture, construction, finance, and retail, government, manufacturing and not-forprofits.

## Cybersecurity Specialization

Students will gain knowledge specific to the detection, protection, and recovery from attacks to an organization's information assets. Gaining skills in the growing employment area of network security combined with the management and soft-skills classes, graduates achieve a competitive edge in the IT marketplace. The advanced cybersecurity courses are complemented by a core foundation of relevant and current human-centered skills in project management, business communications, financial management, ethics, professional selling, customer relationship management, as well as hard skills
in database management, web development, computer networking, and computer applications. Graduates secure careers as a cybersecurity specialist, information security officer, information assurance analyst, information security relationship analyst, cybersecurity analyst, and information technology specialist. The need for cybersecurity experts spans all organizations including: public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect.

## ITAM Minors or Certificates

The information technology and administrative management minors and certificates provide recognition for students who complete the specified minor or certificate courses. Such recognition will benefit students in gaining professional employment or advancing in their current professional positions.

Each of our seven minors will complement any major field, helping CWU students stand out from the crowd and be competitive in today's job market. Applied, relevant skill sets develop individuals ready to handle the challenges of modern global industry.

Application forms for minors and certificates can be obtained in the Ellensburg campus department or on the ITAM web site at www.cwu.edu/it-management.

## Minors or certificates are available in the following areas:

- Administrative Management
- Cybersecurity
- Innovation through IT
- Modern IT Applications
- Project Management
- Retail Management and Technology
- Structures of Data Analytics for IT Managers
- Web Design and Management

A minimum GPA of 2.3 in the minor and certificate courses must be achieved with a minimum grade of C - in each course.

## Bachelor of Applied Science

Information Technology and Administrative Management Providing students with management, leadership, critical thinking skills is the primary purpose of the BAS-ITAM degree. Students learn the soft-skills to excel in managing people, projects or departments. A curriculum rich in communication and problem-solving skills, the program complements any professional/technical degree with timely and relevant skills to qualify students for leadership roles in their technical area.

## BAS-ITAM Program Admission Requirements

Applicants for the BAS-ITAM must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree with at least 40 credits in an applied/technical area from a community college or technical college.
- Minimum GPA of 2.3.
- A world language is not required.

BAS-ITAM Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Basic and Breadth Requirements, except the world language and computing requirements.
- Completion of the BAS-ITAM core requirement courses and one of the BAS-ITAM specialization list of courses with a minimum grade of C - in each course.


## List of Specializations for BAS-ITAM program

Students seeking the BAS-ITAM program take a common set of core courses. Additionally, students entering the BAS-ITAM program must choose a specialization and complete the CWU General Education program. Students choose from three unique specializations:

1. Administrative Management
2. Cybersecurity
3. Information Technology Management

## ITAM BAS, Administrative Management Specialization

 Qualify to work in any business environment where leadership and information processing is required. With classes such as Project Management, Customer Relationship Management, Financial Analysis, and Advanced Spreadsheet Applications, you will have the skills to manage in any administrative capacity. Industries like healthcare, manufacturing, education, retail, and even non-profit organizations are asking for employees with this educational background. Any completed professional/technical associate degree will satisfy the admission requirement.
## ITAM BAS, Cybersecurity Specialization

Learn to detect, protect, and recover from attacks to an organization's information assets. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area. The skills to detect and recover from cyber-attacks, coupled with the team leadership, effective communication, and project management skills of the BAS core, will provide a thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. Because of the technical IT skills classes involved in this specialization, a computerrelated associate degree is suggested for admission.

## ITAM BAS, Information Technology Specialization

Managing in an IT department or organization requires team leadership, project management, effective communication, and critical thinking skills. Those soft-skills when combined with the hard skills from an associate degree in network security, computer support technology, wireless technology, server support, CAD technology, etc. give students the best opportunity for advancement in their field. With specialization classes directed specifically to management in the IT environment, students have the best opportunity for furthering their careers. Requires a professional/technical associate degree with at least 40 credits in computer-related classes for admission.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/it-management or by contacting the department directly.

## ITAM BAS, Administrative Management Specialization

## ITAM-BAS Program and Core Requirements

Providing students with management, leadership, critical thinking skills is the primary purpose of the ITAM-BAS degree. Students learn the soft-skills to excel in managing people, projects or departments. A curriculum rich in communication and problem-solving skills, the program complements any professional/technical degree with timely and relevant skills to qualify students for leadership roles in their technical area.

## ITAM-BAS Program Admission Requirements

Applicants for the ITAM-BAS must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree with at least 40 credits in an applied/technical area from a community college or technical college.
- Minimum GPA of 2.3.
- A world language is not required.


## ITAM-BAS Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Basic and Breadth Requirements, except the world language and computing requirements.
- Completion of the ITAM-BAS core requirement courses and one of the ITAM-BAS specialization lists of courses with a minimum grade of C - in each course.


## List of Specializations for ITAM-BAS program

Students seeking the ITAM-BAS program take a common set of core courses. Additionally, students entering the ITAM-BAS program must choose a specialization and complete the CWU General Education program. Students choose from three unique specializations:

1. Administrative Management
2. Cybersecurity
3. Information Technology Management

Administrative Management Specialization: Qualify to work in any business environment where leadership and information processing is required. With classes such as Project Management, Customer Relationship Management, Financial Analysis, and Advanced Spreadsheet Applications, you will have the skills to manage in any administrative capacity. Industries like healthcare, manufacturing, education, retail, and even non-profit organizations are asking for employees with this educational background. Any completed professional/technical associate degree will satisfy the admission requirement.

Cybersecurity Specialization: Learn to detect, protect, and recover from attacks to an organization's information assets. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area. The skills to detect and recover from cyber-attacks, coupled with the team leadership, effective communication, and project management skills of the BAS core, will provide a
thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. Because of the technical IT skills classes involved in this specialization, a computer-related associate degree is suggested for admission.

Information Technology Specialization: Managing in an IT department or organization requires team leadership, project management, effective communication, and critical thinking skills. Those soft-skills when combined with the hard skills from an associate degree in network security, computer support technology, wireless technology, server support, CAD technology, etc. give students the best opportunity for advancement in their field. With specialization classes directed specifically to management in the IT environment, students have the best opportunity for furthering their careers. Requires a professional/technical associate degree with at least 40 credits in computer-related classes for admission.

## ITAM-BAS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-10 credits, typically during the summer quarter)
- OR ADMG 490-Cooperative Education Credits: (1-12)
- OR IT 490 - Cooperative Education Credits: (1-12)

ITAM-BAS Total Core Credits: 47-49

Administration Management Specialization

The Administrative Management Specialization is designed to provide a baccalaureate degree for those with an applied degree from a community college in a timely fashion. It provides administrative and leadership skills for those seeking management positions in any field.

## Required Courses

- ADMG 373-Training and Development for Administrative and IT Support Credits: (4)
- ADMG 424 - Administrative Management Policy Credits: (4)
- ADMG 471 - Leading Change Credits: (4)
- IT 101 - Computer Applications Credits: (3)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 359 - Advanced Spreadsheet Applications Credits: (4)

Total Specialization Credits: 24

Total Credits: 71-73

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## ITAM BAS, Cybersecurity Specialization

## ITAM-BAS Program and Core Requirements

Providing students with management, leadership, critical thinking skills is the primary purpose of the ITAM-BAS degree. Students learn the soft-skills to excel in managing people, projects or departments. A curriculum rich in communication and problem-solving skills, the program complements any professional/technical degree with timely and relevant skills to qualify students for leadership roles in their technical area.

## ITAM-BAS Program Admission Requirements

Applicants for the ITAM-BAS must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree with at least 40 credits in an applied/technical area from a community college or technical college.
- Minimum GPA of 2.3.
- A world language is not required.

ITAM-BAS Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Basic and Breadth Requirements, except the world language and computing requirements.
- Completion of the ITAM-BAS core requirement courses and one of the ITAM-BAS specialization lists of courses with a minimum grade of C- in each course.


## List of Specializations for ITAM-BAS program

Students seeking the ITAM-BAS program take a common set of core courses. Additionally, students entering the ITAM-BAS program must choose a specialization and complete the CWU General Education program. Students choose from three unique specializations:

1. Administrative Management
2. Cybersecurity
3. Information Technology Management

Administrative Management Specialization: Qualify to work in any business environment where leadership and information processing is required. With classes such as Project Management, Customer Relationship Management, Financial Analysis, and Advanced Spreadsheet Applications, you will have the skills to manage in any administrative capacity. Industries like healthcare, manufacturing, education, retail, and even non-profit organizations are asking for employees with this educational background. Any completed professional/technical associate degree will satisfy the admission requirement.

Cybersecurity Specialization: Learn to detect, protect, and recover from attacks to an organization's information assets. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area. The skills to detect and recover from cyber-attacks, coupled with the team leadership, effective communication, and project management skills of the BAS core, will provide a thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. Because of the technical IT skills classes involved in this specialization, a computer-related associate degree is suggested for admission.

Information Technology Specialization: Managing in an IT department or organization requires team leadership, project management, effective communication, and critical thinking skills. Those soft-skills when combined with the hard skills from an associate degree in network security, computer support technology, wireless technology, server support, CAD technology, etc. give students the best opportunity for advancement in their field. With specialization classes directed specifically to management in the IT environment, students have the best opportunity for furthering their careers. Requires a professional/technical associate degree with at least 40 credits in computer-related classes for admission.

ITAM-BAS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-10 credits, typically during the summer quarter)
- OR ADMG 490-Cooperative Education Credits: (1-12)
- OR IT 490 - Cooperative Education Credits: (1-12)


## Cybersecurity Specialization

The cybersecurity specialization provides an opportunity for IT professionals to gain knowledge specific to the detection, protection, and recovery from attacks to an organization's information assets. When combined with the leadership/management skills classes in the BAS core, this specialization will provide a thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. This baccalaureate degree requires significant study in general education at the upper-division level. A professional/technical degree in a computer-related discipline is required for admission. Students not meeting the requirement of the degree in a computer-related discipline would need department permission.

## Required Courses

- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 336 - Digital Forensics Credits: (4)
- IT 338 - Cybercrime Credits: (4)
- IT 351 - Computer Networks Credits: (4)
- IT 436 - Cyberattack/Defense Credits: (4)
- IT 438 - IT Risk Management Credits: (4)
- IT 482 - Cybersecurity Capstone Credits: (4)

Total Specialization Credits: 28

Total Credits: 75-77

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## ITAM BAS, Information Technology Specialization

## ITAM-BAS Program and Core Requirements

Providing students with management, leadership, critical thinking skills is the primary purpose of the ITAM-BAS degree. Students learn the soft-skills to excel in managing people, projects or departments. A curriculum rich in communication and problem-solving skills, the program complements any professional/technical degree with timely and relevant skills to qualify students for leadership roles in their technical area.

## ITAM-BAS Program Admission Requirements

Applicants for the ITAM-BAS must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree with at least 40 credits in an applied/technical area from a community college or technical college.
- Minimum GPA of 2.3.
- A world language is not required.


## ITAM-BAS Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Basic and Breadth Requirements, except the world language and computing requirements.
- Completion of the ITAM-BAS core requirement courses and one of the ITAM-BAS specialization lists of courses with a minimum grade of C - in each course.


## List of Specializations for ITAM-BAS program

Students seeking the ITAM-BAS program take a common set of core courses. Additionally, students entering the ITAM-BAS program must choose a specialization and complete the CWU General Education program. Students choose from three unique specializations:

1. Administrative Management
2. Cybersecurity
3. Information Technology Management

Administrative Management Specialization: Qualify to work in any business environment where leadership and information processing is required. With classes such as Project Management, Customer Relationship Management, Financial Analysis, and Advanced Spreadsheet Applications, you will have the skills to manage in any administrative capacity. Industries like healthcare, manufacturing, education, retail, and even non-profit organizations are asking for employees with this educational background. Any completed professional/technical associate degree will satisfy the admission requirement.

Cybersecurity Specialization: Learn to detect, protect, and recover from attacks to an organization's information assets. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area. The skills to detect and recover from cyber-attacks, coupled with the team leadership, effective communication, and project management skills of the BAS core, will provide a thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. Because of the technical IT skills classes involved in this specialization, a computer-related associate degree is suggested for admission.

Information Technology Specialization: Managing in an IT department or organization requires team leadership, project management, effective communication, and critical thinking skills. Those soft-skills when combined with the hard skills from an associate degree in network security, computer support technology, wireless technology, server support, CAD technology, etc. give students the best opportunity for advancement in their field. With specialization classes directed specifically to management in the IT environment, students have the best opportunity for furthering their careers. Requires a professional/technical associate degree with at least 40 credits in computer-related classes for admission.

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371 - Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-10 credits, typically during the summer quarter)
- OR ADMG 490- Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BAS Total Core Credits: 47-49
Information Technology Specialization
The Information Technology Specialization is designed to provide an opportunity for citizens who are information technology professionals with specific technical education to gain a baccalaureate degree in a timely fashion. This baccalaureate degree requires significant study in general education at the upper-division level. This specialization combines human-centered, management skills with IT technical skills - a requirement for those seeking management positions in the IT field.

## Required Courses

- ADMG 471 - Leading Change Credits: (4)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 376 - Project Management and Information Technology Credits: (3)
- IT 461 - Systems Analysis Credits: (4)
- IT 481 - Quality Verification and Validation Credits: (4)
- IT 486 - Critical Issues in Information Technology Credits: (4)

Total Specialization Credits: 22
Total Credits: 69-71
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## ITAM BAS, Project Management Specialization

Students will gain knowledge specific to managing projects. Graduates in this high-demand field of project management will gain skill and knowledge that, when combined with the softskills classes, will give you the competitive edge in the marketplace. Project management skills are not specific to any industry and are sought after by many organizations.

## Soft Skills

- management and leadership
- project management
- business communications
- financial management
- ethics
- professional selling
- customer relationship management

Hard Skills

- managing projects through all stages or the project management lifecycle
- managing project budgets, schedules, and resources
- managing project risk, quality, and procurement
- developing WBS and reporting project performance
- implementing project management maturity practices


## ITAM-BAS Program and Core Requirements

Providing students with management, leadership, critical thinking skills is the primary purpose of the ITAM-BAS degree. Students learn the soft-skills to excel in managing people, projects or departments. A curriculum rich in communication and problem-solving skills, the program complements any professional/technical degree with timely and relevant skills to qualify students for leadership roles in their technical area.

## ITAM-BAS Program Admission Requirements

Applicants for the ITAM-BAS must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree with at least 40 credits in an applied/technical area from a community college or technical college.
- Minimum GPA of 2.3.
- A world language is not required.

ITAM-BAS Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Basic and Breadth Requirements, except the world language and computing requirements.
- Completion of the ITAM-BAS core requirement courses and one of the ITAM-BAS specialization lists of courses with a minimum grade of C - in each course.


## List of Specializations for ITAM-BAS program

Students seeking the ITAM-BAS program take a common set of
core courses. Additionally, students entering the ITAM-BAS program must choose a specialization and complete the CWU General Education program. Students choose from three unique specializations:

1. Administrative Management
2. Cybersecurity
3. Information Technology Management

Administrative Management Specialization: Qualify to work in any business environment where leadership and information processing is required. With classes such as Project Management, Customer Relationship Management, Financial Analysis, and Advanced Spreadsheet Applications, you will have the skills to manage in any administrative capacity. Industries like healthcare, manufacturing, education, retail, and even non-profit organizations are asking for employees with this educational background. Any completed professional/technical associate degree will satisfy the admission requirement.

Cybersecurity Specialization: Learn to detect, protect, and recover from attacks to an organization's information assets. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area. The skills to detect and recover from cyber-attacks, coupled with the team leadership, effective communication, and project management skills of the BAS core, will provide a thorough knowledge base for managers and technology leaders concerned with the operation and management of cybersecurity systems. Because of the technical IT skills classes involved in this specialization, a computer-related associate degree is suggested for admission.

Information Technology Specialization: Managing in an IT department or organization requires team leadership, project management, effective communication, and critical thinking skills. Those soft-skills when combined with the hard skills from an associate degree in network security, computer support technology, wireless technology, server support, CAD technology, etc. give students the best opportunity for advancement in their field. With specialization classes directed specifically to management in the IT environment, students have the best opportunity for furthering their careers. Requires a professional/technical associate degree with at least 40 credits in computer-related classes for admission.

ITAM-BAS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371 - Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12)
(Must be taken for 8-10 credits, typically during the summer quarter)
- OR ADMG 490-Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BAS Total Core Credits: 47-49

Project Management Specialization

## Required Courses

- ADMG 474 - Executing Project Management I Credits: (4)
- ADMG 475 - Executing Project Management II Credits: (4)
- ADMG 476 - Managing Project Uncertainty Credits: (4)
- ADMG 477 - Project Performance Reporting Credits: (4)
- ADMG 479 - Project Management Maturity Credits: (4)

Total Specialization Credits: 20

Total Credits: 67-69

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## ITAM BS, Administrative Management Specialization

## ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to
effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## ITAM-BS Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

## ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-12 credits, typically during the summer quarter.)
- OR ADMG 490- Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78

Administrative Management Specialization

Administrative management specialization students become qualified business professionals prepared to pursue careers that apply a blend of management, administrative, and information technology skills in contemporary administrative and information technology environments. The administrative manager supervises office employees, designs office work systems, maintains internal and external communication systems, and compiles meaningful reports from information processing. Their knowledge of IT tools complemented by the soft skills (emotional intelligence and leadership) qualifies them to seek employment in positions requiring the management of data, projects, people, and organizational change. The need for graduates with these skills crosses all types of business including agriculture, construction, finance, retail, government, manufacturing and not-for-profits.

## Required Courses

- ADMG 373-Training and Development for Administrative and IT Support Credits: (4)
- ADMG 424 - Administrative Management Policy Credits: (4)
- ADMG 471 - Leading Change Credits: (4)
- IT 359 - Advanced Spreadsheet Applications Credits: (4)
- IT 461 - Systems Analysis Credits: (4)

Total Credits: 94-98

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## ITAM BS, Cybersecurity Specialization

## ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## ITAM-BS Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the

ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-12 credits, typically during the summer quarter.)
- OR ADMG 490- Cooperative Education Credits: (1-12)
- OR IT 490 - Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78

Cybersecurity Specialization

IT professionals will gain knowledge specific to the detection, protection, and recovery from attacks to an organization's information assets. You will gain skills in this high-demand field of network security that, when combined with the management/soft skills classes, will give you the competitive edge in the IT marketplace. Public utility companies, national security agencies, food and water suppliers, financial services, and companies with intellectual property to protect are now hiring experts in this area.

## Required Courses

- IT 336 - Digital Forensics Credits: (4)
- IT 338 - Cybercrime Credits: (4)
- IT 436 - Cyberattack/Defense Credits: (4)
- IT 438 - IT Risk Management Credits: (4)
- IT 482 - Cybersecurity Capstone Credits: (4)

Total Specialization Credits: 20

Total Credits: 94-98

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## ITAM BS, Network Administration and Management Specialization

## ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and
integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## ITAM-BS Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

## ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-12 credits, typically during the summer quarter.)
- OR ADMG 490 - Cooperative Education Credits: (1-12)
- OR IT 490 - Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78

Network Administration and Management Specialization
Network administration and management specialization students become qualified business professionals prepared to pursue careers that apply a wide variety of network administration skills. These qualifications are complemented by business communications and human-centered skills. Graduates of the network administration and management specialization secure positions as network administrators, network analysts, network managers, data communication analysts, network operations analysts, network specialists, network technicians, PC support specialists, PC network engineers, and user support specialists.

## Required Courses

- IT 362 - Wireless Communications Credits: (4)
- IT 456 - Advanced Computer Network Management Credits: (4)
- IT 459 - Workstation Administration Credits: (4)
- IT 463 - Computer Network Management Credits: (4)
- IT 466 - Open Source Server Management Credits: (4)
- IT 467 - Network Security Credits: (4)
- IT 487 - Networking Capstone Credits: (4)

Total Specialization Credits: 28

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## ITAM BS, Project Management Specialization

Students will gain knowledge specific to managing projects. Graduates in this high-demand field of project management will gain skill and knowledge that, when combined with the softskills classes, will give you the competitive edge in the marketplace. Project management skills are not specific to any industry and are sought after by many organizations.

Soft Skills

- management and leadership
- project management
- business communications
- financial management
- ethics
- professional selling
- customer relationship management Hard Skills
- managing projects through all stages or the project management lifecycle
- managing project budgets, schedules, and resources
- managing project risk, quality, and procurement
- developing WBS and reporting project performance
- implementing project management maturity practices

ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## ITAM-BS Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371 - Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-12 credits, typically during the summer quarter.)
- OR ADMG 490 - Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78

Project Management Specialization

## Required Courses

- ADMG 474 - Executing Project Management I Credits: (4)
- ADMG 475 - Executing Project Management II Credits: (4)
- ADMG 476 - Managing Project Uncertainty Credits: (4)
- ADMG 477 - Project Performance Reporting Credits: (4)
- ADMG 479 - Project Management Maturity Credits: (4)

Total Specialization Credits: 20

Total Credits: 94-98

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# ITAM BS, Retail Management and Technology Specialization 

ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.
ITAM-BS Program Admission Requirements
Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

## ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371 - Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for 8-12 credits, typically during the summer quarter.)
- OR ADMG 490-Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78
Retail Management and Technology Specialization

Retail management and technology specialization students become qualified business professionals prepared to pursue careers in retail environments that infuse information technology in areas such as e-commerce, management, selling, purchasing, operations, and merchandising. These qualifications are complemented by business communications and humancentered skills. Graduates of the retail management and technology specialization secure careers in store operations, store management, IT and e-commerce, sales, distribution and logistics, merchandise buying, and planning and entrepreneurship.

Required Courses

- RMT 330 - Principles of Retailing Credits: (4)
- RMT 335 - Retail Information Technology Credits: (4)
- RMT 345 - Sustainable Retailing Credits: (3)
- RMT 350 - Omni Channel Retailing Credits: (4)
- RMT 467 - Retail Management Credits: (4)
- RMT 485 - International Retailing Credits: (4)

Total Specialization Credits: 23

Total Credits: 97-101
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# ITAM BS, Web and Database Administration and Management Specialization 

## ITAM-BS Program and Core Requirements

## ITAM-BS Program Overview

The Bachelor of Science in Information Technology and Administrative Management (ITAM) provides a degree path for students with five high demand specializations needed by the modern workforce.

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

The ITAM curriculum, designed by subject matter experts with guidance from industry professionals, addresses the current demand for tech-savvy individuals who are also able to effectively lead and motivate teams, manage projects, and integrate technological solutions. Students completing this major will take a core set of courses and select one of the five specialization areas. The ITAM-BS is comprised of two complementing areas creating synergy.

1. All ITAM-BS specializations are complemented by a core foundation of relevant and current humancentered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications.
2. The specializations feature advanced study in high demand areas of IT management.

## ITAM-BS Program Admission Requirements

Students are encouraged to apply for their ITAM major early in their university studies, even as soon as their first quarter. Once enrolled in the ITAM program students will begin working with a knowledgeable ITAM advisor to design their academic course of study at CWU and make sure they are fulfilling all of the requirements for successful degree completion. Application forms are available in the Ellensburg campus department or on the ITAM website. www.cwu.edu/it-management.

## ITAM-BS Graduation Requirements

The following requirements apply to students seeking the ITAM-BS degree: Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree. Students must earn a minimum grade of "C-" in each course.

## Course Fees

Most ITAM courses that use hardware and software resources are assessed a course fee of $\$ 25$ or $\$ 50$, depending on the required technology.

## List of Specializations for the ITAM-BS

Students seeking the ITAM-BS take a common set of core courses of relevant and current human-centered skills in management, leadership, project management, business communications, financial management, ethics, personal selling, and CRM as well as hard skills in database management, web development, computer networking, and computer applications. Additionally, students complete a specialization within the ITAM-BS degree:

1. Network Administration and Management Specialization
2. Web and Database Administration and Management Specialization
3. Retail Management and Technology Specialization
4. Administrative Management Specialization
5. Cybersecurity Specialization

## ITAM-BS Core Requirements

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 271 - Business Math Applications Credits: (4)
- ADMG 302 - Financial Analysis for Administrative and IT Support Credits: (5)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- IT 101 - Computer Applications Credits: (3)
- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 468 - Projects in Database Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 366 - Customer Relationship Management Credits: (4)
- RMT 379 - IT Management Career Planning Credits: (1)
- RMT 490 - Cooperative Education Credits: (1-12) (Must be taken for $8-12$ credits, typically during the summer quarter.)
- OR ADMG 490-Cooperative Education Credits: (1-12)
- OR IT 490-Cooperative Education Credits: (1-12)

ITAM-BS Total Core Credits: 74-78

Web and Database Administration and Management Specialization

Web and database administration and management specialization students become qualified business professionals prepared to pursue careers that apply a wide variety of Web and database skills. These qualifications are complemented by business communications and human-centered skills. Graduates of the Web and database administration and management specialization secure positions as Web administrators, database administrators, Web designers, database developers, Web page developers, database managers and web masters.

Required Courses

- IT 312 - Advanced Application of Web Tools Credits: (4)
- IT 322 - Innovative Design in Web Credits: (4)
- IT 376 - Project Management and Information Technology Credits: (3)
- IT 381 - Web Apps for M-Commerce Credits: (4)
- IT 426 - Application of Web Languages Credits: (4)
- IT 470 - Database and the Web Capstone Credits: (4)

Total Specialization Credits: 23
Total Credits: 97-101

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## Administrative Management <br> Minor or Certificate

## Required Courses

- ADMG 201 - Introduction to Business Credits: (3)
- ADMG 371-Administrative Management Credits: (4)
- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- ADMG 471 - Leading Change Credits: (4)

Total Credits: 25

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## Cybersecurity Minor or Certificate

Students fulfilling the requirements for an ITAM program degree specialization can earn a minor in Cybersecurity.

## Required Courses

- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 336 - Digital Forensics Credits: (4)
- IT 338 - Cybercrime Credits: (4)
- IT 351 - Computer Networks Credits: (4)
- IT 436 - Cyberattack/Defense Credits: (4)
- IT 438 - IT Risk Management Credits: (4)

Total Credits: 24

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## Digital Forensics and Incident Response (DFIR) Minor or Certificate

Students will learn techniques in digital forensics and incident response along with security testing and computer system diagnostics. Students will also gain knowledge specific to standard computer operating systems, networks and hardware as well as security software and document-creation applications.

Required Courses

- IT 238 - Introduction to Cyberwarfare Credits: (4)
- IT 336 - Digital Forensics Credits: (4)
- IT 351 - Computer Networks Credits: (4)
- IT 370 - The Command Line Interface and Cybersecurity Credits: (4)
- IT 436 - Cyberattack/Defense Credits: (4)
- IT 437 - Mobile and Cloud Forensics Credits: (4)

Total Credits: 24

## Innovation through IT Minor or Certificate

Required Courses

- ADMG 374 - Project Management Credits: (5)
- IT 228 - New Innovations in IT Credits: (2)
- IT 248 - Web Fundamentals Credits: (4)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 351 - Computer Networks Credits: (4)
- IT 461 - Systems Analysis Credits: (4)

Total Credits: 22

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## Modern IT Applications Minor or Certificate

## Required Courses

- IT 101 - Computer Applications Credits: (3)
- IT 248 - Web Fundamentals Credits: (4)
- IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 288 - Business Presentation Applications Credits: (2)
- IT 359 - Advanced Spreadsheet Applications Credits: (4)
- IT 468 - Projects in Database Credits: (4)

Total Credits: 22

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College of Education and Professional Studies

## Project Management Minor or Certificate

Students will gain knowledge specific to managing projects. Students will gain skills in this high-demand field of project management that, when combined with the soft-skills classes, will give students the competitive edge in the marketplace. Project management skills are not specific to any industry and are sought after by many organizations.

Required Courses

- ADMG 372 - Leadership and Supervision Credits: (4)
- ADMG 374 - Project Management Credits: (5)
- ADMG 385 - Business Communications and Report Writing Credits: (5)
- ADMG 474 - Executing Project Management I Credits: (4)
- ADMG 475 - Executing Project Management II Credits: (4)

Total Credits: 22
College and Department Information
Information Technology and Administrative Management Department
College of Education and Professional Studies

## Retail Management and Technology Minor or Certificate

Required Courses

- ADMG 201 - Introduction to Business Credits: (3)
- RMT 330 - Principles of Retailing Credits: (4)
- RMT 335 - Retail Information Technology Credits: (4)
- RMT 340 - Principles of Selling Credits: (4)
- RMT 350 - Omni Channel Retailing Credits: (4)
- RMT 467 - Retail Management Credits: (4)

Total Credits: 23
College and Department Information
Information Technology and Administrative Management Department
College of Education and Professional Studies

## Structures of Data Analytics for IT Managers Minor or Certificate

[^9]decisions. Data analytics skills are not specific to any industry and are sought after by many organizations.

## Required Courses

- IT 101 - Computer Applications Credits: (3)
- IT 258 - Spreadsheet Applications Credits: (3)
- OR IT 260 - Integrated Information Technology Application Projects Credits: (5)
- IT 359 - Advanced Spreadsheet Applications Credits: (4)
- IT 363 - Data Mining for IT Managers Credits: (4)
- IT 365 - Data Driven Innovation Credits: (4)
- IT 425 - Reporting Data and Analytics Credits: (4)

Total Credits: 22-24

College and Department Information

Information Technology and Administrative Management Department
College of Education and Professional Studies

## Web Design and Management Minor or Certificate

## Required Courses

- IT 248 - Web Fundamentals Credits: (4)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- IT 312 - Advanced Application of Web Tools Credits: (4)
- IT 322 - Innovative Design in Web Credits: (4)
- IT 381 - Web Apps for M-Commerce Credits: (4)
- IT 426 - Application of Web Languages Credits: (4)

Total Credits: 23

College and Department Information

Information Technology and Administrative Management Department
College of Education and Professional Studies

# Institute for Integrated <br> Energy Studies 

College of the Sciences<br>Ellensburg<br>Dean Hall, room 311<br>509-963-2184<br>E-mail: Elvin.Delgado@cwu.edu<br>www.cwu.edu/energy

## Director, Institute for Integrated Energy Studies Elvin Delgado, PhD

## Program Director, Integrated Energy Management Elvin Delgado, PhD

## Staff

Jessie Martin, program manager

## Program Information

The geopolitical conflicts over energy resources during the last decades have transformed the current energy landscapes at regional, national and global scales. These shifts in energy landscapes have made the management of energy resources more complex, the development of energy policy more important and controversial, and the innovation of energy technology front-page news. Whether it is finding new traditional sources of energy (e.g., oil, coal and natural gas) or developing alternative courses of energy (e.g., wind, solar, hydro power, geothermal) we need to understand that the world is so embedded in conventional sources of energy that policies and decisions regarding alternative sources of energy depend greatly on what happens in the fossil fuel market.

An interdisciplinary and integrated understanding of energy resources is integral to finding comprehensive solutions to the management of energy systems in today's rapidly changing world. A broad range of human, environmental, political, economic, and technological factors are at work shaping the future of current energy landscapes, and it is the mission of the Institute of Integrated Energy Studies (I2ES) to prepare students to be active participants in that emerging future. In doing so, the I2ES emphasizes critical thinking and applied approaches to analysis, while providing graduates with the skills necessary to deal with energy issues at scales ranging from local to global.

The bachelor of science in Integrated Energy Management (IEM) take these factors in consideration and provides students with an interdisciplinary education experience that includes the integration of both traditional fossil fuel-based and greener alternative energy. Students enrolled in the IEM degree program will be able to choose from three specializations: (1) integrated energy policy; (2) integrated energy business; and (3) integrated power systems. Courses in the BS in IEM introduce students to energy systems and resources, while at the same time providing a comprehensive understanding for the social, political, economic and environmental processes that shape energy systems. We emphasize field learning experience and an integrative approach to energy management. Majors in IEM hone their written, verbal, and analytical communication skills as part of their interdisciplinary education. Students also learn from and collaborate with faculty members supporting the Institute for Integrated Energy Studies.

Select students will have the opportunity to engage in a creditbaring business-hosted extended (up to six months) cooperative education/apprenticeships with participating businesses. This applied learning experience happens in a student's junior or senior year and allows for the student to: (1) put in practice what they have learned in the classroom; (2) receive credit towards their degree; and (3) receive specialized training from a company that they may work for after graduation.

No other university in the state offers this particular type of interdisciplinary education in response to current and future
professional work place needs. Upon graduation, majors in IEM will be qualifies to work in a wide range of careers, including: energy policy, energy management services, inspection field technician, contact specialists, supply chain management of energy technologies, energy business, utility locator supervisor, energy plant manager, energy forecasting, and employment in private, public and non-for-profit organizations at local, state, and federal government agencies.

## Admission Requirements

Applications are accepted throughout the academic year. Admission to the program is based upon a review of completed prerequisite courses and application materials. Please see the program application at www.cwu.edu/energy.

A student must have a 2.25 minimum GPA in all coursework taken previous to application for admission.

Admission to any course requires a grade of C or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course.

A student is expected to complete each course used to fulfill a degree program requirement with a grade of C or higher. Students must complete all CWU foundation and core requirements prior to beginning 400-level coursework.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/energy or by contacting the department directly.

## Integrated Energy Management BS, Integrated Energy Business Specialization

Integrated Energy Management, BS Core

## Program Information

The geopolitical conflicts over energy resources during the last decades have transformed the current energy landscapes at regional, national and global scales. These shifts in energy landscapes have made the management of energy resources more complex, the development of energy policy more important and controversial, and the innovation of energy technology front-page news. Whether it is finding new traditional sources of energy (e.g., oil, coal and natural gas) or developing alternative courses of energy (e.g., wind, solar, hydro power, geothermal) we need to understand that the world is so embedded in conventional sources of energy that policies and decisions regarding alternative sources of energy depend greatly on what happens in the fossil fuel market.

An interdisciplinary and integrated understanding of energy resources is integral to finding comprehensive solutions to the management of energy systems in today's rapidly changing world. A broad range of human, environmental, political, economic, and technological factors are at work shaping the
future of current energy landscapes, and it is the mission of the Institute of Integrated Energy Studies (I2ES) to prepare students to be active participants in that emerging future. In doing so, the I2ES emphasizes critical thinking and applied approaches to analysis, while providing graduates with the skills necessary to deal with energy issues at scales ranging from local to global.

The bachelor of science in Integrated Energy Management (IEM) take these factors in consideration and provides students with an interdisciplinary education experience that includes the integration of both traditional fossil fuel-based and greener alternative energy. Students enrolled in the IEM degree program will be able to choose from three specializations: (1) integrated energy policy; (2) integrated energy business; and (3) integrated power systems. Courses in the BS in IEM introduce students to energy systems and resources, while at the same time providing a comprehensive understanding for the social, political, economic and environmental processes that shape energy systems. We emphasize field learning experience and an integrative approach to energy management. Majors in IEM hone their written, verbal, and analytical communication skills as part of their interdisciplinary education. Students also learn from and collaborate with faculty members supporting the Institute for Integrated Energy Studies.

Select students will have the opportunity to engage in a creditbaring business-hosted extended (up to six months) cooperative education/apprenticeships with participating businesses. This applied learning experience happens in a student's junior or senior year, and allows for the student to: (1) put in practice what they have learned in the classroom; (2) receive credit towards their degree; and (3) receive specialized training from a company that they may work for after graduation.

No other university in the state offers this particular type of interdisciplinary education in response to current and future professional work place needs. Upon graduation, majors in IEM will be qualifies to work in a wide range of careers, including: energy policy, energy management services, inspection field technician, contact specialists, supply chain management of energy technologies, energy business, utility locator supervisor, energy plant manager, energy forecasting, and employment in private, public and non-for-profit organizations at local, state, and federal government agencies.

## Admission Requirements

Applications are accepted throughout the academic year. Admission to the program is based upon a review of completed prerequisite courses and application materials. Please see the program application at www.cwu.edu/energy.

A student must have a 2.25 minimum GPA in all coursework taken previous to application for admission.

Admission to any course requires a grade of C - or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course.

A student is expected to complete each course used to fulfill a degree program requirement with a grade of C - or higher. Students must complete all CWU foundation and core requirements prior to beginning 400 -level coursework.

Additional
Students graduate from Central Washington University and earn
a Bachelor of Science in Integrated Energy Management making them experts of integrated energy in the global economy.

Foundational Courses Credits: 29

- ECON 201 - Principles of Economics Micro Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- IEM 103 - Introduction to Energy and Science Inquiry Credits: (5)

Select one from the following for 5 credits:

- ECON 130 - Foundations for Business Analytics Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)


## Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)

Core Courses Credits: 39-40

- ECON 463 - Energy Economics Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- IEM 330-Geopolitics of Fossil Fuels Credits: (5)
- IEM 489 - Integrated Energy Management Capstone Credits: (2)

Select one of the following Method courses for 5 credits:

- BUS 221 - Introductory Business Statistics Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)

Select one of the following Communication courses for $\mathbf{4 - 5}$ credits:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ENG 310-Technical Writing Credits: (4)

Total Core Credits: 68-69
Integrated Energy Business Specialization

Integrated Energy Business specializes in training students in the areas of marketing, supply chain logistics, and economics as it relates to energy production distribution and consumption.

Required Courses Credits: 20

- ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- MGT 380-Organizational Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Department-Approved Electives Credits: 15
Select 15 credits from the following OR, with approval, IEM 290 and IEM 490:

## Choose two of the following:

- ECON 310 - International Economics Credits: (5)
- ECON 330 - Money and Banking Credits: (5)
- ECON 352 - Managerial Economics Credits: (5)
- ECON 355 - Economics of Labor Credits: (5)
- SCM 420 - Lean/Six Sigma Processes Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)
- SCM 435 - Supply Chain Operations Credits: (5)
- SCM 475 - Global Trade and Supply Chain Management Credits: (5) Choose one from the following:
- MGT 477 - Global Leadership and Culture Credits: (5)
- MKT 364 - Marketing Promotion Management Credits: (5)
- MKT 365 - International Marketing Credits: (5)

OR

- IEM 290 - Cooperative Education Credits: (1-10)
- IEM 490-Cooperative Education Credits: (1-12)

Specialization Total Credits: 35
Total Credits: 103-104

College and Department Information

Institute for Integrated Energy Studies
College of the Sciences

# Integrated Energy Management BS, Integrated Energy Policy Specialization 

Integrated Energy Management, BS Core

## Program Information

The geopolitical conflicts over energy resources during the last
decades have transformed the current energy landscapes at regional, national and global scales. These shifts in energy landscapes have made the management of energy resources more complex, the development of energy policy more important and controversial, and the innovation of energy technology front-page news. Whether it is finding new traditional sources of energy (e.g., oil, coal and natural gas) or developing alternative courses of energy (e.g., wind, solar, hydro power, geothermal) we need to understand that the world is so embedded in conventional sources of energy that policies and decisions regarding alternative sources of energy depend greatly on what happens in the fossil fuel market.

An interdisciplinary and integrated understanding of energy resources is integral to finding comprehensive solutions to the management of energy systems in today's rapidly changing world. A broad range of human, environmental, political, economic, and technological factors are at work shaping the future of current energy landscapes, and it is the mission of the Institute of Integrated Energy Studies (I2ES) to prepare students to be active participants in that emerging future. In doing so, the I2ES emphasizes critical thinking and applied approaches to analysis, while providing graduates with the skills necessary to deal with energy issues at scales ranging from local to global.

The bachelor of science in Integrated Energy Management (IEM) take these factors in consideration and provides students with an interdisciplinary education experience that includes the integration of both traditional fossil fuel-based and greener alternative energy. Students enrolled in the IEM degree program will be able to choose from three specializations: (1) integrated energy policy; (2) integrated energy business; and (3) integrated power systems. Courses in the BS in IEM introduce students to energy systems and resources, while at the same time providing a comprehensive understanding for the social, political, economic and environmental processes that shape energy systems. We emphasize field learning experience and an integrative approach to energy management. Majors in IEM hone their written, verbal, and analytical communication skills as part of their interdisciplinary education. Students also learn from and collaborate with faculty members supporting the Institute for Integrated Energy Studies.

Select students will have the opportunity to engage in a creditbaring business-hosted extended (up to six months) cooperative education/apprenticeships with participating businesses. This applied learning experience happens in a student's junior or senior year, and allows for the student to: (1) put in practice what they have learned in the classroom; (2) receive credit towards their degree; and (3) receive specialized training from a company that they may work for after graduation.

No other university in the state offers this particular type of interdisciplinary education in response to current and future professional work place needs. Upon graduation, majors in IEM will be qualifies to work in a wide range of careers, including: energy policy, energy management services, inspection field technician, contact specialists, supply chain management of energy technologies, energy business, utility locator supervisor, energy plant manager, energy forecasting, and employment in private, public and non-for-profit organizations at local, state, and federal government agencies.

## Admission Requirements

Applications are accepted throughout the academic year.

Admission to the program is based upon a review of completed prerequisite courses and application materials. Please see the program application at www.cwu.edu/energy.

A student must have a 2.25 minimum GPA in all coursework taken previous to application for admission.

Admission to any course requires a grade of C - or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course.

A student is expected to complete each course used to fulfill a degree program requirement with a grade of C - or higher.
Students must complete all CWU foundation and core requirements prior to beginning 400-level coursework.

## Additional

Students graduate from Central Washington University and earn a Bachelor of Science in Integrated Energy Management making them experts of integrated energy in the global economy.

Foundational Courses Credits: 29

- ECON 201 - Principles of Economics Micro Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- IEM 103 - Introduction to Energy and Science Inquiry Credits: (5)


## Select one from the following for $\mathbf{5}$ credits:

- ECON 130 - Foundations for Business Analytics Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)

Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)

Core Courses Credits: 39-40

- ECON 463 - Energy Economics Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- IEM 489- Integrated Energy Management Capstone Credits: (2)

Select one of the following Method courses for 5 credits:

- BUS 221 - Introductory Business Statistics Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)

Select one of the following Communication courses for $\mathbf{4 - 5}$ credits:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ENG 310-Technical Writing Credits: (4)

Total Core Credits: 68-69

Integrated Energy Policy Specialization

Integrated Energy Policy specializes in training students in Geographic Information Systems (GIS), planning, and policy analysis as it relates to energy production, distribution and consumption with particular attention to the environment.

## Required Courses Credits: 18

- ECON 462 - Environmental and Resource Economics Credits: (5)
- GEOG 443 - Energy Policy Credits: (5)
- GEOG 445 - Environmental Law Credits: (5)
- POSC 325 - Introduction to Public Policy Credits: (3)

Department-Approved Electives Credits: 18-20
Select from the following:

- BUS 241 - Legal Environment of Business Credits: (5)
- BUS 441 - Advanced Business Law Credits: (5)
- ECON 325 - Introduction to Forecasting Credits: (5)
- ECON 332 - Public Finance Credits: (5)
- ECON 401 - Intermediate Microeconomic Analysis Credits: (5)
- ECON 424 - Introduction to Econometrics Credits: (5)
- ECON 426 - Economic Research Credits: (5)
- GEOG 303 - GIS and Data Management Credits: (5)
- GEOG 305 - Introduction to Land Use Planning Credits: (5)
- GEOG 306-Transportation Geography and Planning Credits: (4)
- GEOG 330 - Airphoto Interpretation Credits: (5)
- GEOG 404 - GIS Analysis Credits: (5)
- GEOG 405 - Advanced Topics in Land Use Planning Credits: (3)
- GEOG 409 - Quantitative Methods in Geography Credits: (5)
- GEOG 417 - Advanced GIS Credits: (4)
- GEOG 430 - Remote Sensing Credits: (5)
- OR GEOL 430 - Remote Sensing Credits: (5)
- GEOG 440 - Ecology and Culture Credits: (4)
- GEOG 444 - Mineral Resources Credits: (4)
- GEOL 210 - Introduction to Geologic Field Methods Credits: (4)
- GEOL 382 - Earth Resources and Pollution Credits: (4)
- GEOL 434 - Petroleum Geology Credits: (5)
- IEM 290 - Cooperative Education Credits: (1-10)
- IEM 398 - Special Topics Credits: (1-6)
- IEM 399 - Seminar Credits: (1-5)
- IEM 490-Cooperative Education Credits: (1-12)
- IEM 496 - Individual Study Credits: (1-6)
- IEM 498 - Special Topics Credits: (1-6)
- POSC 350 - Introduction to Public Law Credits: (5)

Total Specialization Credits: 36-38
Total Credits: 104-107

College and Department Information

Institute for Integrated Energy Studies
College of the Sciences

# Integrated Energy Management BS, Integrated Power Systems Specialization 

Integrated Energy Management, BS Core

## Program Information

The geopolitical conflicts over energy resources during the last decades have transformed the current energy landscapes at regional, national and global scales. These shifts in energy landscapes have made the management of energy resources more complex, the development of energy policy more important and controversial, and the innovation of energy technology front-page news. Whether it is finding new traditional sources of energy (e.g., oil, coal and natural gas) or developing alternative courses of energy (e.g., wind, solar, hydro power, geothermal) we need to understand that the world is so embedded in conventional sources of energy that policies and decisions regarding alternative sources of energy depend greatly on what happens in the fossil fuel market.

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The bachelor of science in Integrated Energy Management (IEM) take these factors in consideration and provides students with an interdisciplinary education experience that includes the
integration of both traditional fossil fuel-based and greener alternative energy. Students enrolled in the IEM degree program will be able to choose from three specializations: (1) integrated energy policy; (2) integrated energy business; and (3) integrated power systems. Courses in the BS in IEM introduce students to energy systems and resources, while at the same time providing a comprehensive understanding for the social, political, economic and environmental processes that shape energy systems. We emphasize field learning experience and an integrative approach to energy management. Majors in IEM hone their written, verbal, and analytical communication skills as part of their interdisciplinary education. Students also learn from and collaborate with faculty members supporting the Institute for Integrated Energy Studies.

Select students will have the opportunity to engage in a creditbaring business-hosted extended (up to six months) cooperative education/apprenticeships with participating businesses. This applied learning experience happens in a student's junior or senior year, and allows for the student to: (1) put in practice what they have learned in the classroom; (2) receive credit towards their degree; and (3) receive specialized training from a company that they may work for after graduation.

No other university in the state offers this particular type of interdisciplinary education in response to current and future professional work place needs. Upon graduation, majors in IEM will be qualifies to work in a wide range of careers, including: energy policy, energy management services, inspection field technician, contact specialists, supply chain management of energy technologies, energy business, utility locator supervisor, energy plant manager, energy forecasting, and employment in private, public and non-for-profit organizations at local, state, and federal government agencies.

## Admission Requirements

Applications are accepted throughout the academic year. Admission to the program is based upon a review of completed prerequisite courses and application materials. Please see the program application at www.cwu.edu/energy.

A student must have a 2.25 minimum GPA in all coursework taken previous to application for admission.

Admission to any course requires a grade of C- or higher in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be dropped from the course.

A student is expected to complete each course used to fulfill a degree program requirement with a grade of C - or higher. Students must complete all CWU foundation and core requirements prior to beginning 400-level coursework.

## Additional

Students graduate from Central Washington University and earn a Bachelor of Science in Integrated Energy Management making them experts of integrated energy in the global economy.

Foundational Courses Credits: 29

- ECON 201 - Principles of Economics Micro Credits: (5)
- GEOG 107 - Our Dynamic Earth Credits: (5)
- GEOG 250 - Resource Exploitation and Conservation Credits: (4)
- IEM 103 - Introduction to Energy and Science Inquiry Credits: (5)

Select one from the following for 5 credits:

- ECON 130 - Foundations for Business Analytics Credits: (5)
- MATH 130 - Finite Mathematics Credits: (5)


## Select one from the following for 5 credits:

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)

Core Courses Credits: 39-40

- ECON 463 - Energy Economics Credits: (5)
- GEOG 301 - Introduction to GIS and Maps Credits: (4)
- GEOG 442 - Alternative Energy Credits: (5)
- IEM 301 - Energy Management Credits: (5)
- IEM 302 - Energy, Environment, and Climate Change Credits: (4)
- IEM 330 - Geopolitics of Fossil Fuels Credits: (5)
- IEM 489 - Integrated Energy Management Capstone Credits: (2)


## Select one of the following Method courses for 5 credits:

- BUS 221 - Introductory Business Statistics Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)


## Select one of the following Communication courses for 4-5 credits:

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- COM 345 - Business and Professional Speaking Credits: (4)
- ENG 310-Technical Writing Credits: (4)

Total Core Credits: 68-69

Integrated Power Systems Specialization

Power Systems provides courses that train students in topics related to energy technologies, physical understandings of power systems, and the environmental implications of energy production, distribution, and consumption.

Required Courses Credits: 17-18

- ETSC 101 - Modern Technology and Energy Credits: (5)
- ETSC 160 - Computer-Aided Design and Drafting Credits: (4)
- OR ETSC 161-Architectural Computer Aided Design Credits: (3)
- ETSC 301 - Engineering Project Cost Analysis Credits: (4)
- PHYS 106 - Physics Inquiry Credits: (5)

Department-Approved Electives Credits: 18-20
Select from the following:

- CMGT 245 - Light Commercial Construction Credits: (5)
- CMGT 265 - Construction Documents Credits: (3)
- CMGT 320 - Electrical Systems Credits: (3)
- CMGT 452 - LEED in Sustainable Construction Credits: (4)
- EET 221 - Basic Electricity Credits: (3)
- EET 332 - Generation of Electrical Power Credits: (4)
- EET 426 - Advanced Electrical Network Credits: (4)
- EET 433 - Transmission and Distribution of Electrical Power Credits: (4)
- ETSC 380 - Quality Control Credits: (4)
- ETSC 455 - Engineering Project Management Credits: (4)
- ETSC 385 - Product Design and Development Credits: (4)
- ETSC 389 - Technical Presentations Credits: (3)
- IEM 290 - Cooperative Education Credits: (1-10)
- IEM 490 - Cooperative Education Credits: (1-12)
- IT 258 - Spreadsheet Applications Credits: (3)
- SHM 301 - Fundamentals of Safety and Health Management Credits: (3)
- SHM 325 - Manufacturing Safety and Health Credits: (3)
- SHM 351 - Incident Analysis Credits: (3)
- SHM 353 - Risk and Insurance Credits: (4)
- SHM 377-Hazardous Materials Management Credits: (4)
- SHM 477 - Environmental Management Credits: (4)

Specialization Total Credits: 35-38

Total Credits: 103-107

College and Department Information
Institute for Integrated Energy Studies
College of the Sciences

## Interdisciplinary Studies: Social Sciences Program

College of the Sciences
Ellensburg
Dean Hall, room 130
Mail Stop 7519
509-963-1804
www.cwu.edu/interdisciplinary-studies-socialsciences
See website for how this program may be used for educational and career purposes.

## Program Academic Coordinator

Alena Yastchenko

## Program Directors

Trieu Doan, Lynnwood
Nicole Dunn, online program
Cynthia Engel, Des Moines/Pierce County
Alena Yastchenko, Ellensburg/Yakima/Wenatchee/Moses Lake

## Program Information

Interdisciplinary studies-social sciences major is for students whose primary interest in the social sciences requires interdisciplinary programs and course selections which are not possible within single academic programs or established curricula. Program offers students an opportunity to devise an approved, coherent program of study with an academic advisor fulfilling academic or career goals and includes prerequisites consistent with the 300-400-level major coursework. Since the program is a student-designed, interdisciplinary major, course selections will vary. Students in the interdisciplinary studies major must take courses in at least three disciplines within the major.

## Admission Requirement

Applicants must have completed 60 credit hours of study with a minimum 2.25 cumulative GPA and be in academic good standing for admission.

## Additional Degree Requirements

Application to the program must be completed at least three quarters prior to anticipated graduation. Students must earn a minimum grade of C- in each course in an approved interdisciplinary studies major plan and achieve a minimum 2.25 GPA in the major. Courses in a student's minor or second major may not be included in the interdisciplinary studies major plan without advisor's consent. Students will enroll in IDS 489 no earlier than 2 quarters following successful completion of IDS 289.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/interdisciplinary-studiessocialsciences or by contacting the department directly.

## Interdisciplinary Studies-Social Sciences, BS

## Program Information

Interdisciplinary studies-social sciences major is for students whose primary interest in the social sciences requires
interdisciplinary programs and course selections which are not possible within single academic programs or established curricula. Program offers students an opportunity to devise an approved, coherent program of study with an academic advisor fulfilling academic or career goals and includes prerequisites consistent with the 300-400-level major coursework. Since the program is a student-designed, interdisciplinary major, course selections will vary. Students in the interdisciplinary studies major must take courses in at least three disciplines within the major.

## Admission Requirement

Applicants must have completed 60 credit hours of study with a minimum 2.25 cumulative GPA and be in academic good standing for admission.

## Additional Degree Requirements

Application to the program must be completed at least three quarters prior to anticipated graduation. Students must earn a minimum grade of C - in each course in an approved interdisciplinary studies major plan and achieve a minimum 2.25 GPA in the major. Courses in a student's minor or second major may not be included in the interdisciplinary studies major plan without advisor's consent. Students will enroll in IDS 489 no earlier than 2 quarters following successful completion of IDS 289.

Interdisciplinary Studies-Social Sciences 62-Credit Major

## Required Courses

- $\quad 52-53$ credits must be taken from the list of courses approved for the social science major. Students in the interdisciplinary studies-social sciences major must take courses in at least three disciplines within the major and no more that 10 credits of lower division coursework may be included. No more than 15 credits may be numbered 490 .
- IDS 289 - Introduction to the Major Credits: (1)
- IDS 389 - Academic and Career Exploration Credits: (3)
- IDS 489 - Senior Portfolio Project Credits: (1)

Research Methods in the Social Sciences (4-5) Credits

Choose one of the following approved courses:

- ANTH 444 - Ethnographic Field Methods Credits: (4)
- LAJ 400 - Research Methods in Criminal Justice Credits: (4)
- PSY 300 - Research Methods in Psychology Credits: (5)
- SOC 363 - Methods of Social Research Credits: (5) or as approved by program director.

Total Credits: 62

Interdisciplinary Studies-Social Sciences 47-Credit Major

Required Courses

- 37-38 credits must be taken from the list of courses approved for the social sciences major. Students in the interdisciplinary studies - social sciences major must take courses in at least three disciplines within the major and no more than 10 credits of lower division coursework may be included. No more than 10 credits may be numbered 490 .
- In addition, a 47-credit major must complete either a traditional departmental minor or a second major.
- IDS 289 - Introduction to the Major Credits: (1)
- IDS 389 - Academic and Career Exploration Credits: (3)
- IDS 489 - Senior Portfolio Project Credits: (1)

Research Methods in the Social Sciences (4-5) Credits

Choose one of the following approved courses:

- ANTH 444 - Ethnographic Field Methods Credits: (4)
- LAJ 400 - Research Methods in Criminal Justice Credits: (4)
- PSY 300 - Research Methods in Psychology Credits: (5)
- SOC 363 - Methods of Social Research Credits: (5) or as approved by program director.


## Total Credits: 47

Courses Approved for the Interdisciplinary Studies-Social Sciences Major

American Indian Studies (all courses)
Anthropology (all courses)
Economics (all courses)
Environmental Studies (all courses)
Ethnic Studies (all courses)
Geography (all courses)
Health Education (approved courses)
HED 210
HED 387
History (all courses)
Interdisciplinary Studies - Social Sciences (all courses)
Law and Justice (all courses)
Library Science
LIS 345 - Library Research Methods
Political Science (all courses)
Psychology (all courses)
Public Health (approved courses)
PUBH 209
PUBH 310
PUBH 317
PUBH 351
PUBH 470
PUBH 471

PUBH 472
Sociology (all courses)
University 309
Women's and Gender Studies (all courses)
College and Department Information
Interdisciplinary Studies: Social Sciences Program
College of the Sciences

# International Studies and Programs 

International Studies<br>Ellensburg<br>International Center, room 101<br>Mail Stop 7408<br>509-963-3612<br>Fax 509-963-1558<br>www.cwu.edu/international-programs<br>See website for how these programs may be used for educational and career purposes.

Executive Director, Office of International Studies and Programs<br>Ediz Kaykayoglu, MS

## Associate Director, Office of International Studies and Programs <br> Nicki Kukar, MEd

## Staff

Cheri Lince, administrative assistant
Raymond (Ray) Wells, office assistant
Stacy Soderstrom, international student recruiter
Rachel Gordon, project manager
Roslyn (Roz) Moes, international student advisor
Kathy Gallentine, international student advisor
Brianna Drakos, SEVIS coordinator
Partick Smith, fiscal specialist II
Vacant, program coordinator

## Program Information

The Office of International Studies and Programs (OISP) coordinates all internationally related activities on campus. This includes maintaining institutional linkages, facilitating faculty exchanges, recruiting international students, providing study abroad/exchange, and academic advising for both international students and American students, promoting English language acquisition through the Asia University America Program (AUAP), and the University English as a Second Language program (UESL), and collaborating with the academic deans and departments in support of the overall internationalization of the university curriculum.

OISP provides a variety of services to all segments of the university in order to meet the diverse needs of CWU's students, faculty, international students, research scholars, and professors. The following services are offered through the OISP: study abroad/exchange advising (SAEP), advising to international students, English language training through the UESL program,
and a unique English language and cultural learning experience for Japanese students from Asia University in Japan through AUAP.

## Institutional Linkages

Central and the Office of International Studies and Programs (OISP) maintain active inter-institutional and organizational relationships with the following universities: Anhui University, China; Gunma Prefectural Women's University, Japan; Herzen State Pedagogical University, Russia; University of Pecs, Hungary; various countries in the International Student Exchange Program; Mexico; Kyoto University of Foreign Studies, Japan; Beijing Jiaotong University, China; Queensland University of Technology, Australia; Charles Darwin
University, Australia; Griffith University, Australia; Macquarie University, Australia; University of Shimane, Japan; Shimane Women's Junior College, Japan; Takushoku University, Japan; University of Hull, United Kingdom; Universidad Austral de Chile, Chile; Pukyong National University, Korea; Kyundong University, Korea; Ewha Women's University, Korea; various countries in the AHA International; Beijing University, China; Universidad Anahuac del Sur, Mexico; Universite de Pau et des Pays de l'Adour, France; College Consortium for International Studies, various countries; American Institute for Foreign Studies, various countries; Centro de Investigaciones en Medio Ambiente y Salud (CIMAS), Ecuador; University of Washington Cadiz Program, Spain; Universidad Autonoma de Guadalajara, Mexico; Asia University, Japan; American Pacific University, Vietnam and Napier University, Scotland.

Active student and faculty exchange opportunities exist between CWU and these institutions.

## International Students and Scholars

International students and scholars receive academic advising, advocacy, and immigration regulations and procedures assistance through OISP. Support services are available to all international students including those here for language training in the UESL department, to take part in an academic year exchange, or to obtain a bachelor or master's degree, in International, and Area Studies.

## International and Area Studies

CWU offers Chinese, French, German, Japanese, Russian, and Spanish language courses. Students studying a language are encouraged to have international experience in order to learn more about the cultural context of the language. Regular degree programs are offered in world languages with specializations in Chinese, French, German, Japanese, Russian, and Spanish. The world language broad area major may include studying abroad in a country where the target language is taken.

Students can internationalize their undergraduate education by completing a major or minor in Asia Studies and/or Latino and Latin American Studies Program. There is also a minor in International Studies. These programs of study are interdisciplinary and incorporate courses in anthropology, art, economics, geography, history, languages, philosophy, and political science. Other area-focused courses are also available throughout the academic year.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/international-programs or by contacting the department directly.

## International Studies Minor

## Assistant Director, SAEP

Steven Cook, International Center, room 108

## Program Information

The international studies minor program goals are to provide a structured interdisciplinary opportunity for students to develop the analytical skills necessary to understand and evaluate the contemporary international system; to facilitate research and creative activities that focus on international issues; to provide opportunities to directly engage in meaningful cross-national interactions; and to encourage the apprehension of the fundamental commonalities as well as rich diversities that characterize the modern world system.

## Required Courses

- ECON 102 - World Economic Issues Credits: (5)
- GEOG 101 - World Regional Geography Credits: (5)
- POSC 270 - International Relations Credits: (5)

International Studies Courses

- INTL 110-465 - International Studies Credits: (3)

Electives Credits: 18

Students must complete at least four of the following courses with no more than two from any one department:

- ANTH 130 - Cultural Worlds Credits: (5)
- ANTH 356 - Gender Roles in Cross-cultural Perspective Credits: (4)
- ANTH 446 - Anthropology of Globalization Credits: (4)
- COM 302 - Intercultural Communication Credits: (4)
- ECON 310 - International Economics Credits: (5)
- ENG 360 - Cinema Studies IV: Survey of World Cinema Credits: (5)
- GEOG 304 - Economic Geography Credits: (5)
- MGT 384 - Introduction to International Business Credits: (5)
- POSC 372 - Politics of Globalization Credits: (5)
- POSC 373 - International Politics of the Pacific Rim Credits: (5)
- POSC 375 - The Middle East and International Politics Credits: (5)
- POSC 378 - International Political Economy Credits: (5)
- POSC 470 - Contemporary Issues in International Relations Credits: (3-5)
- PUBH 317-Global Health Issues and Solutions Credits: (4)
- SOC 326 - Social Demography Credits: (5)
- SOC 371 - Globalization Credits: (5)
- WGSS 498 - Special Topics Credits: (1-6)
- WLC 311 - Popular Cultures of the World Credits: (5)


## Other Electives

- INTL 198-498 - Special Topics Credits: (1-6)
- INTL 290/490 - Cooperative Education Credits: (1-6)

Total Credits: 36

College and Department Information

International Studies and Programs

## Asia University America Program (AUAP)

International Studies<br>Ellensburg<br>International Center, room 101

509-963-1373
Fax 509-963-1371
www.cwu.edu/international-programs/auap
See website for how these programs may be used for educational and career purposes.

## Program Director

Nicki Kukar, MEd

## Lecturers

Andrew Cottonwood MA, curriculum coordinator, American and Japanese history
Rose Romfo, MA, English literature
Sylvia Shriner, MA, TESL
Johanna Hamilton, MA
Nicole Rehorst, MA

## Staff

Angela (Angie) Wedekind, secretary senior Mark Werdin, MA, English literature, student services coordinator

## Program Information

The Asia University America Program (AUAP) is a study abroad program for freshman and sophomore students from Asia University in Tokyo, Japan. Two groups of students come to CWU each year for five months. The program is presently ongoing at two other universities in the northwest: WWU and EWU. AUAP provides students from Asia University the opportunity to improve their English skills and experience university life in the U.S. Students attend 18 hours of AUAP classes per week following the required curriculum from Asia

University.

## International Study Courses

INTL courses are offered only in university-approved study abroad/exchange programs. Courses may be offered and repeated for credit under different titles.

College and Department Information

International Studies and Programs

## Study Abroad and Exchange Programs (SAEP)

International Studies and Programs
Ellensburg
International Center, room 101
509-963-3622
www.cwu.edu/international-programs
See website for how this program may be used for educational and career purposes.

## Assistant Director

Steven Cook, MA

## Staff

Matthew Zielsdorf, senior education abroad advisor
Roberta Lowe, secretary senior

## Program Information

Education Abroad provides students the opportunities to combine academic and cultural learning and, in so doing, challenge previous knowledge and assumptions, gain new perspectives on their field of study, access classes or materials unavailable at CWU and gain skills necessary in the $21^{\text {st }}$ century workplace. Multiple recent studies have shown US employers place a high value on intercultural skills and cultural competency.

Programs are available in a variety of majors, destinations, durations and types, including internships and service-learning in addition to more traditional study programs. See the office website or come to our office for more information.

Study Abroad and Exchange Programs offers more than 150 international programs in 50 countries and over 170 exchange locations within the U.S. International internships are also available. Programs range in length from 10 days to one year. Programs grant academic credit that can be applied to major, minor, or breadth requirements with departmental approval. World language proficiency is not required and many programs offer coursework in English.

## SAEP Standards

- Minimum GPA 2.5 or higher; 2.0 for international internships.
- Minimum sophomore standing for most programs; freshman standing for some faculty-led programs.
- Must be in good academic and disciplinary standing.
- Program-specific eligibility criteria are available on the SAEP website at www.cwu.edu/internationalprograms/saep.


## Financial Obligations

Exempt from CWU tuition. Program-specific fees apply. For more information, see the SAEP website at www.cwu.edu/internationalprograms/saep.
Most types of financial aid apply toward program costs. Aid may be increased if necessary depending on student aid eligibility.

College and Department Information
International Studies and Programs

# University English as a Second Language Program (UESL) 

International Studies<br>Ellensburg<br>International Center, room 168

## 509-963-1376

www.cwu.edu/international-programs
See website for how these programs may be used for educational and career purposes.

## Program Director

Sherri Fujita, MA

## Senior Lecturers

Matt Britschgi, MA
Meiqi He, MA
James Pitts, MA
Carl Rosser, PhD,

## Lecturers

Cami Bello, MA
Reka Britschgi, MA, MS
Debra Douglas, MA
Sarah Luerken, MA
Sarah Norton, MA

## Staff

Kindra Martin, secretary senior

## Program Information

The UESL Program consists of a year-round intensive English program and short-term special programs. The year-round program focuses on language instruction and academic preparation for international students. Conditional undergraduate admission to CWU is an option through the UESL program. The program provides practical training for English department graduate students and an opportunity for American students to be conversation partners. Short-term special programs can be arranged for specific groups.

College and Department Information

# Latino and Latin American Studies Program 

College of Arts and Humanities<br>Ellensburg<br>Language and Literature Bldg., room 102<br>509-963-1218<br>www.cwu.edu/latino-latin-american

## Director

Gilberto Garcia, PhD

## Associate Director

Daniel Beck, PhD

## Faculty

Daniel Beck, PhD, biology
Xavier Cavazos, MFA, English
Elvin Delgado, PhD, geography
Jason Dormady, PhD, history
Susana Flores, PhD , education
Gilberto Garcia, PhD, political science
Steve Hackenberger, PhD, anthropology
Koushik Ghosh, PhD, economics
Eric Mayer, PhD, Spanish, world languages
Stella Moreno, PhD, Spanish, world languages
Nelson Pichardo, PhD, sociology
Sterling Quinn, PhD, geography
Rodrigo Rentería-Valencia, PhD, anthropology
Craig Revels, PhD , geography
Chris Schedler, PhD, English

## Program Information

The Latino and Latin American Studies Program (LLAS) seeks to engage CWU students, faculty, staff, and local communities in a study of Latino and Latin American experiences, peoples, and cultures. The LLAS minor provides students with broad, interdisciplinary training in the economic, social, political, and cultural realities of Latino and Latin American peoples. The minor will be extremely valuable for those pursuing careers in business, government, social work, law and justice, and teaching that require engagement with Latino communities in the United States, as well as for those who wish to travel and work in Latin America. Moreover, the Latino and Latin American Studies minor may also serve as preparation for graduate study in multiple academic or professional fields.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/latino-latin-american or by contacting the department directly.

## Latino and Latin American Studies Minor

## General Program Information

The Latino and Latin American Studies Program (LLAS) seeks to engage CWU students, faculty, staff, and local communities in a study of Latino and Latin American experiences, peoples, and cultures. The LLAS minor provides students with broad, interdisciplinary training in the economic, social, political, and cultural realities of Latino and Latin American peoples. The minor will be extremely valuable for those pursuing careers in business, government, social work, law and justice, and teaching that require engagement with Latino communities in the United States, as well as for those who wish to travel and work in Latin America. Moreover, the Latino and Latin American Studies minor may also serve as preparation for graduate study in multiple academic or professional fields.

## Requirements for minors in Latino and Latin American Studies

- Prerequisite: Spanish, Portuguese, or French language equivalent to the end of the first year (153).
- An average GPA of 2.0 is required in all program courses.

Required Course Credits: 5

- LLAS 102 - An Introduction to Latino and Latin American Studies Credits: (5)

Department-Approved Electives Credits: 20

A total of 20 approved elective credits in at least three different disciplines at the 300 level or above is required from the below list. Courses taken through CWU exchange or study-abroad programs in a Latin American university may be applied for minor program credit. Courses that do not appear on the approved list but contain significant Latino and Latin American content may be used for minor program credit, upon approval of the LLAS director(s).

List of Approved CWU Courses (By Department/Program)
(a) Anthropology

- ANTH 346-Cultures of Latin America and the Caribbean Credits: (4)
(b) Economics
- ECON 101 - Economic Issues Credits: (5)
- ECON 102 - World Economic Issues Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
(c) English
- ENG 331 - Latina/o Literature Credits: (5)
(d) Geography
- GEOG 368 - Geography of Middle America Credits: (4)
- GEOG 370 - Geography of South America Credits: (4)
(e) History
- HIST 321 - Latin America Through Film, Art, and Music Credits: (5)
- HIST 328 - Modern Latin America Credits: (5)
- HIST 329 - The Tropics and the Modern World Credits: (5)
- HIST 385 - Aztec, Inca, Maya: Empire and City in the New World Credits: (5)
- HIST 386 - The Latin American Colonies Credits: (5)
- HIST 460 - Religion in Latin America Credits: (5)
- HIST 488 - Mexico in the Modern Era Credits: (5)
(f) Latino and Latin American Studies
- LLAS 102 - An Introduction to Latino and Latin American Studies Credits: (5)
- LLAS 301 - Urban Society in Latin America Credits: (5)
- LLAS 388 - Mexican Cultural Studies Credits: (5)
- LLAS 398 - Special Topics Credits: (1-6)
- LLAS 496 - Individual Study Credits: (1-6)
(g) Political Science
- POSC 316 - Latinos and the U.S. Political System Credits: (5)
- POSC 343 - The Politics of the U.S. Mexico Border Credits: (5)
- POSC 361 - Latin American Politics Credits: (5)
(h) Spanish
- SPAN 301 - Introduction to Spanish and Latin American Literature Credits: (5)
- SPAN 310 - Hispanic Civilizations and Cultures Credits: (5)
- SPAN 446 - Hispanic Cinema Credits: (5)
- SPAN 456 - The Spanish and Latin American Short Story Credits: (5)
- SPAN 467 - Spanish and Latin American Literature and Film Credits: (5)
- SPAN 380 - Contemporary Hispanic Literature and Cultures Credits: (5)
- SPAN 381 - Hispanic and U.S. Latino Literatures and Cultures Credits: (5)
- SPAN 447 - Framing Latin American Cinema Credits: (5)
- SPAN 449 - Spanish Golden Age Literature Credits: (5)
(i) World Languages
- WLC 311 - Popular Cultures of the World Credits: (5)

Total Credits: 25

College and Department Information
Latino and Latin American Studies Program
College of Arts and Humanities

## Latin American Business Certificate


#### Abstract

The certificate in Latin American Business prepares students for working within an emerging economy orientated toward Latin American. It combines an overview of the nuances of the regional economy with an introduction to Latin American's cultural and historical development. Topics will include an introduction to Latin American culture and philosophy, corporate-government relations, twentieth-century history, regional development, and business strategies. It can be supplemented with study abroad opportunities and language study (French, Spanish, Portuguese).

There are two tracks: one for College of Business majors and one for non-business majors.


Required Courses Credits: 14

- COM 471 - Corporate Communication in Latin America Credits: (4) (No prerequisites required for the Latin American Business Certificate)
- ECON 101 - Economic Issues Credits: (5)
- OR ECON 102 - World Economic Issues Credits: (5)
- OR ECON 201 - Principles of Economics Micro Credits: (5)
- LLAS 102 - An Introduction to Latino and Latin American Studies Credits: (5) (online)

Track for Business Majors Credits: 8-10
Choose two of the following courses:

- HIST 321 - Latin America Through Film, Art, and Music Credits: (5)
- OR HIST 328 - Modern Latin America Credits: (5) OR
- GEOG 368 - Geography of Middle America Credits: (4)
- OR GEOG 370-Geography of South America Credits: (4)
- OR SPAN 310 - Hispanic Civilizations and Cultures Credits: (5)

Track for Non-Business Majors Credits: 10
Choose two of the following courses:

- MGT 380 - Organizational Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- HRM 381 - Management of Human Resources Credits: (5)

Total Credits: 22-24

College and Department Information

Latino and Latin American Studies Program
College of Arts and Humanities

## Law and Justice Department

College of the Sciences

Ellensburg
Farrell Hall, room 309
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7580
509-963-3208
Fax: 509-963-3205
www.cwu.edu/law
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Paul Knepper, PhD

## University Center Coordinator

Krystal Noga-Styron, JD

## Professors

Paul Knepper, PhD, theoretical criminology, history of crime, crime prevention
Rodrigo Murataya, PhD, criminal investigation, policecommunity relations, police personnel administration Krystal Noga-Styron, JD, criminal law, crime and the media J. Michael Olivero, PhD, corrections, criminology

Charles Reasons, PhD, LLB, criminology, criminal justice, law, comparative justice

## Associate Professors

Teresa Francis, JD, LLM, criminal law, correctional law Cody Stoddard, PhD, policing, courts, criminological theory, quantitative methods

## Assistant Professors

Veronica Cano, PhD, research methods, community and social justice, juvenile justice
Roger Schaefer, PhD, corrections, research methods, criminal justice policy

## Senior Lecturer

Robert Wes Clogston, MS, law enforcement, comparative criminal justice, police personnel administration

## Lecturers

Saul Chacon, MA, corrections, policing
R. Shaffer Claridge, JD, civil practice, courts and trails, legal writing, legal research
Robert Moore, MA, corrections, correctional counseling

## Staff

Karina Mendoza-Flores, office assistant
Dalton Neiffer, BA, internship coordinator
Emily Veitia, MS, secretary supervisor

## Department Standards

## Admission to the major and to the minor

- Grade requirement: overall grade point average of 2.25 or higher. The department chair may admit a limited number of students with grade point averages below 2.25 under extenuating circumstances.
- Students applying to the major must submit a major application form.
- The law and justice department reserves the right to modify these requirements in special cases or as the needs of the department change.


## Exit Requirements

A minimum grade of C - must be earned in all courses used to fulfill the requirements of the major and of the minor.
(NOTE: for all 400-level LAJ courses, student must have completed either a DTA or ENG 101 and 102, MATH 101 or 153 or 154 or 164 or 170 or 172, MATH 102 or MATH 130 or PHIL 201 or CS 105 (basic skills in these categories.)

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/law or by contacting the department directly.

## Law and Justice Major, BA

## Admission to the Major and to the Minor

- Grade requirement: overall grade point average of 2.25 or higher. The department chair may admit a limited number of students with grade point averages below 2.25 under extenuating circumstances.
- Students applying to the major must submit a major application form.
- The law and justice department reserves the right to modify these requirements in special cases or as the needs of the department change.


## Exit Requirements

A minimum grade of C - must be earned in all courses used to fulfill the requirements of the major and of the minor.

Required Courses Credits: 32

- LAJ 300-Administration of Criminal Justice Credits: (4)
- LAJ 302 - Criminal Procedure Credits: (4)
- LAJ 313 - Introduction to Criminal Law Credits: (4)
- LAJ 400 - Research Methods in Criminal Justice Credits: (4)
- LAJ 401 - Ethics, Diversity, and Conflict in Criminal Justice Credits: (4)
- LAJ 420 - Community and Social Justice Credits: (4)
- LAJ 451 - Crime in America Credits: (4)
- LAJ 489 - Senior Seminar in Law and Justice Credits: (4)


## Department-Approved Electives Credits: 28

Select seven (7) upper-division CWU LAJ courses (other than $490,492,495$, or 496).

- LAJ 303 - Legal Research Credits: (4)
- LAJ 311 - Family Law Credits: (4)
- LAJ 316 - Introduction to Paralegal Studies Credits: (4)
- LAJ 317 - Introduction to Civil Practice Credits: (4)
- LAJ 318 - Introduction to Forensics Credits: (4)
- LAJ 324 - Correctional Law Credits: (4)
- LAJ 326 - Correctional Counseling Credits: (4)
- LAJ 327 - Community Corrections Credits: (4)
- LAJ 331 - Investigation Credits: (4)
- LAJ 332 - Police Community Relations Credits: (4)
- LAJ 333 - Police Personnel Administration Credits: (4)
- LAJ 334 - Issues in Policing Credits: (4)
- LAJ 342 - Juvenile Justice Process Credits: (4)
- LAJ 350 - Criminal Justice and the Media Credits: (4)
- LAJ 351 - Preparing for a Law Enforcement Career Credits: (4)
- LAJ 353 - Great American Trials Credits: (4)
- LAJ 396 - Individual Study Credits: (1-6)
- LAJ 397 - Honors Credits: (1-12)
- LAJ 398 - Special Topics Credits: (1-6)
- LAJ 399 - Seminar Credits: (1-5)
- LAJ 402 - African Americans and the Constitution Credits: (4)
- LAJ 403 - Sexual Minorities, the Law, and Justice Credits: (4)
- LAJ 410 - Legal Writing Credits: (4)
- LAJ 426 - Advanced Correctional Counseling Credits: (4)
- LAJ 440 - Basic Mediation Credits: (4)
- LAJ 450 - Report Writing Credits: (4)
- LAJ 453 - Domestic Violence Issues Credits: (4)
- LAJ 455 - Comparative Criminal Justice Systems

Credits: (4)

- LAJ 459 - Current Issues Credits: (4)
- LAJ 489 - Senior Seminar in Law and Justice Credits: (4)
- LAJ 493 - Field Experience Credits: (1-12)
- LAJ 499 - Field Experience Seminar Credits: (1-5)

Total Credits: 60
College and Department Information
Law and Justice Department
College of the Sciences

## Law and Justice Minor

## Admission to the Major and to the Minor

- Grade requirement: overall grade point average of 2.25 or higher. The department chair may admit a limited number of students with grade point averages below 2.25 under extenuating circumstances.
- Students applying to the major must submit a major application form.
- The law and justice department reserves the right to modify these requirements in special cases or as the needs of the department change.


## Exit Requirements

A minimum grade of C- must be earned in all courses used to fulfill the requirements of the major and of the minor.

Required Courses Credits: 12-13
Select three (3) LAJ courses from the LAJ core requirements.

- LAJ 300-Administration of Criminal Justice Credits: (4)
- LAJ 302 - Criminal Procedure Credits: (4)
- LAJ 303 - Legal Research Credits: (4)
- LAJ 313 - Introduction to Criminal Law Credits: (4)
- LAJ 400 - Research Methods in Criminal Justice Credits: (4)
- LAJ 401 - Ethics, Diversity, and Conflict in Criminal Justice Credits: (4)
- LAJ 420 - Community and Social Justice Credits: (4)
- LAJ 451 - Crime in America Credits: (4)

LAJ Electives Credits: 12
Select three (3) upper-division CWU LAJ courses (other than 490, 492, 495, or 496).

Total Credits: 24-25

College and Department Information
Law and Justice Department
College of the Sciences
Library Science Program

[^10]Mail Stop 7548
509-963-1021
Fax 509-963-3684
www.lib.cwu.edu
See website for how these programs may be used for educational and career purposes.

## Faculty and Administration, Deans and Chair

Greg Paveza, MSW, PhD; interim dean of libraries Ginny N. Blackson, MLIS; interim associate dean of libraries Julia Stringfellow, MLIS, MA American history, archives; department chair, university archivist

## Professors

Ping Fu, MLIS, MS computer science, MA East Asian studies; head of library technology services
Gerard P. Hogan, MLibr; head of reference, engagement, and instruction
Julia Stringfellow, MLIS, MA American history; head of archives
Mary J. Wise, MLS, MEd; head of music library

## Associate Professor

Ginny N. Blackson, MLIS; head of collection development

## Assistant Professors

Elizabeth Brown, MLIS; instruction coordinator
Julie Carmen, MLS; research and grants
Zebulin Evelhoch, MLS; head of electronic resources
Aimée Quinn, MLIS; head of government publications
Maureen Rust, MLIS; student engagement and community outreach
Maura Valentino, MLA; head of digital initiatives

## Lecturers

Maurice (Marty) Blackson, MA special education; archives Geri L. Hopkins, MLS; instructional design
Mattias Olshausen, MLIS, MA history; research and instruction

## Program Information

At all times, students at Central have access to the library's 1.3 million books, films, government documents, and maps in print, microfiche, microfilm, and online electronic formats. The main library and two branch libraries at the University Centers at Des Moines and Lynnwood maintain subscriptions to over 20,000 newspapers, magazines, and journals in print and online full-text electronic formats, as well as audio recordings in CD, LP, and cassette formats and videos in DVD and VHS formats. The libraries participate in the resource-sharing service with the Orbis Cascade Alliance that provides our students with access to more than 25 million information items. The libraries' OneSearch make this available to students from any networked computer, whether on or off campus.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.lib.cwu.edu or by contacting the department directly.

## Library and Information Science Minor

The minor in library and information science is designed to provide students with an understanding of the methods and means of gathering, organizing, and disseminating information. The minor is appropriate for any students who wish to gain a greater understanding of the field of library and information science. This program does not qualify participants for a Washington State Library Media (P-12) endorsement.

## Graduation Requirements

All students in the minor will be required to complete 20 credit hours in the core curriculum. Students may choose courses within the remaining curriculum areas depending on their specific interests. Students must maintain a 2.0 GPA in the program courses.

Required Courses Credits: 20

- LIS 110 - Research Fundamentals Credits: (1)
- LIS 201 - Foundations of Library and Information Science Credits: (3)
- LIS 245 - Research Methods in the Digital Age Credits: (4)
- LIS 310 - Information Literacy and User Services Credits: (3)
- LIS 314-Technology in Library and Information Science Credits: (3)
- LIS 414 - Organization of Knowledge Credits: (3)
- LIS 490 - Library and Information Science Internship Credits: (1-12) (Must be taken for 3 credits)

Management Courses Credits: 3-4

Select one of the following courses:

- ANTH 362 - Museum Curation and Management Credits: (4)
- LIS 412 - Library Management and Leadership Credits: (3)

Collection Management Credits: 3
Select one of the following courses:

- LIS 410 - Collection Development Credits: (3)
- LIS 411 - Introduction to Archives Credits: (3)

Reader Content Advisory Credits: 3-5
Select one of the following courses:

- EDLM 436 - Survey of Children's and Young Adult Literature Credits: (3)
- ENG 247 - Multicultural Literature Credits: (5)
- ENG 302 - Poetry and Poetics Credits: (5)
- ENG 330 - African American Literature Credits: (5)
- ENG 331 - Latina/o Literature Credits: (5)
- ENG 332 - American Indian Literature Credits: (5)
- ENG 333 - Asian American Literature Credits: (5)
- ENG 334 - American Indian Oral and Nonfiction Literature Credits: (5)
- ENG 347 - Global Perspectives in Literature Credits: (5)
- LIS 291 - Workshop Credits: (1-6)
- OR LIS 391 - Workshop Credits: (1-6)
- LIS 298 - Special Topic Credits: (1-6)
- OR LIS 398 - Special Topic Credits: (1-6)
- OR LIS 498 - Special Topic Credits: (1-6)
- LIS 299 - Seminar Credits: (1-5)
- OR LIS 399 - Seminar Credits: (1-5)
- Any History Course at the 300 to 500 level Credits: (3-5)

Total Credits: 29-32

College and Department Information

Library Science Program

## Library and Information Science Certificate

The certificate in library and information science is designed to provide students with an understanding of the methods and means of gathering, organizing, and disseminating information. The certificate is appropriate for any students who wish to gain a greater understanding of the field of library and information science without completing an undergraduate minor and or nonmatriculated students already employed as a library paraprofessional.

## Graduation Requirements

All students in the certificate program will be required to complete 8 credit hours in the core curriculum. Students may choose four courses within the remaining curriculum areas depending on their specific interests.

## Required Courses Credits: 8

- LIS 110 - Research Fundamentals Credits: (1)
- LIS 201 - Foundations of Library and Information Science Credits: (3)
- LIS 245 - Research Methods in the Digital Age Credits: (4)

Department-Approved Electives Credits: 12
Select four of the following:

- LIS 298 - Special Topic Credits: (1-6)
- LIS 310 - Information Literacy and User Services Credits: (3)
- LIS 314 - Technology in Library and Information Science Credits: (3)
- LIS 398 - Special Topic Credits: (1-6)
- LIS 410 - Collection Development Credits: (3)
- LIS 411 - Introduction to Archives Credits: (3)
- LIS 412 - Library Management and Leadership Credits: (3)
- LIS 414 - Organization of Knowledge Credits: (3)
- LIS 498 - Special Topic Credits: (1-6)

Total Credits: 20

College and Department Information
Library Science Program

## Management Department

## College of Business

Ellensburg (E)
Shaw-Smyser Hall, room 329
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7485
509-963-3339
Fax: 509-963-2875
www.cwu.edu/management
See the website for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
William Provaznik, PhD

## Professors

James Avey, PhD, management (E)
Peter J. Boyle, PhD, marketing (L)
Mark Pritchard, PhD, marketing (E)
Jeffrey L. Stinson, PhD, marketing (E)

## Associate Professors

Wendy Cook, PhD, management (D)
Nancy Graber Pigeon, JD, business law (E)
Erica Holley, PhD, management (L)
Sayantani Mukherjee, PhD , management (L)
William Provaznik, PhD, management, director, institute for innovation and entrepreneurship (E)
Todd Weber, PhD, management (E)
Keke (CoCo) Wu, PhD, management (E)

## Assistant Professors

Claudia Dumitrescu, PhD, marketing (D)
Timothy Hargrave, PhD, management (L)
Theresa (Terry) Wilson, PhD, marketing (E)

## Staff

Maxine Lennon, secretary senior

The Department of Finance and SCM and the Department of Management jointly support the bachelor of science in business administration and business minor. The department offers coursework leading to the bachelor of science in business administration (BSBA) degree. In addition to the university general education requirements, the BSBA major is comprised of three principal components:

Foundation courses that provide foundation knowledge and skills needed for further study in business

Business core courses that build on the foundation group and focus on decision making in the main functional areas of business

Specialization courses that allow for advanced study in one of the functional areas.

Students select a 25 -credit specialization within the BSBA program in one of seven areas: finance, general business, human resource management, leadership and management, marketing management, personal financial planning or supply chain management.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational Outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program., students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions
Transfer Credits and Prior Learning Assessment
Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upper-division (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).


## Repeat Policy

Business administration courses may be repeated only once.

## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59 - to $60-$ credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/management or by contacting the department directly.

## Business Administration BS (BSBA), General Business Specialization

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59 - to $60-$ credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

## Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40

Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41

General Business Specialization Courses
This specialization is intended for the student who wishes to tailor a "unique" set of specialization courses to his or her needs or for the student who desires a broad-based "generalist" track within the business administration major. Twenty-five upper division elective credits are required including at least 20 credits must be business (BUS), finance (FIN), human resource management (HRM), management (MGT), marketing (MKT), management information systems (MIS), or supply chain management (SCM) courses. The remaining five credits may be accounting (ACCT) or economics (ECON). The student is limited to 10 credits from any one area and the specialization must include at least 10 credits of 400 -level courses, which cannot include BUS 490 as any of the 10 credits at the 400level. No more than 5 credits of the specialization may be BUS 490.

Total Specialization Credits: 25
College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7

Total Credits: 111-113

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Management Department
College of Business

# Business Administration BS (BSBA), Human Resource Management Specialization 

## Advisors:

James Avey, PhD
Wendy Cook, PhD
Nancy Graber Pigeon, JD
Erica Holley, PhD
Todd Weber, PhD
Students pursuing the HRM specialization will deal with fundamental organizational processes that must be developed and managed for continuous improvement by both HR specialists and by all managers in general. Thus, the study of HR takes on a dual emphasis. First, by pursuing an HR specialization, students will be thoroughly trained to focus decision-making as it pertains to the acquisition, utilization, development and retention of employees. Alternatively, the study of HRM is also applicable as a strong supplement to other specializations or majors.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59- to $60-$ credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172-Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40

Business Core Courses

- BUS 301- Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41

Human Resource Management Specialization Courses

## Required Courses

- HRM 381 - Management of Human Resources Credits: (5)
- HRM 486 - Problems in Human Resource Management Credits: (5)

Select 15 credits from the following:

- BUS 490-Cooperative Education Credits: (1-12) (Must be taken for 5 credits)
- ECON 355 - Economics of Labor Credits: (5)
- HRM 442 - Training and Development Credits: (5)
- HRM 445-Organizational Staffing Credits: (5)
- HRM 479 - Employee Relations Credits: (5)
- HRM 488-Compensation Policy and Administration Credits: (5)
- MGT 386 - Principles of Organizational Behavior Credits: (5)

Total Specialization Credits: 25
College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7
Total Credits: 111-113

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to:
College of Business.
Management Department
College of Business

# Business Administration BS (BSBA), Leadership and Management Specialization 

Advisors:<br>James Avey, PhD<br>Wendy Cook, PhD<br>Erica Holley, PhD<br>William Provaznik, PhD<br>Todd Weber, PhD<br>Keke Wu, PhD

The leadership and management specialization emphasizes building the skills, insights and knowledge that professionals need to succeed in a business context. Students will improve their ability to manage themselves as well as influence others as they learn to identify valuable goals and work to reach them. Courses will feature relevant concepts and theories and present opportunities to deploy this knowledge in practical situations to build a solid foundation of leadership and management ability. The program is designed to give students a portfolio of established and cutting-edge principles to draw from over their career.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based educational outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and/or prepare them for additional study

2. Values-based educational outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based educational outcomes. Upon completion of the BSBA program, students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Additional BSBA Graduation Requirements

The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99 - to 100 -credit in-the-major coursework
to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59 - to $60-$ credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.
- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.


## Repeat Policy

Business administration courses may be repeated only once.

## Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40

Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301 - Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41

Leadership and Management Specialization Courses
Required Courses

- MGT 386 - Principles of Organizational Behavior Credits: (5)
- MGT 395 - Leadership in Business Organizations Credits: (5)
- MGT 478 - Leadership Capstone Credits: (5)
- MGT 483 - Decision Making and Organizational Change Credits: (5)

Select 5 credits from the following:

- ACCT 460 - Auditing Credits: (5)
- BUS 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)
- FIN 474 - Personal Financial Planning Credits: (5)
- MGT 389 - Business and Society Credits: (5)
- MGT 477-Global Leadership and Culture Credits: (5)
- MGT 482-Advanced Organizational Behavior Credits: (5)
- MGT 484 - International Management Credits: (5)
- MGT 487 - Entrepreneurism and Small Business Management Credits: (5)
- MKT 468 - Consumer Behavior Credits: (5)
- SCM 425 - Procurement and Supply Management Credits: (5)

Total Specialization Credits: 25

College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7

Total Credits: 111-113

College and Department Information
College of Business Admission Requirements
For information on admission requirements, please go to: College of Business.

Management Department
College of Business

# Business Administration BS (BSBA), Marketing Management Specialization 

## Advisors:

Peter Boyle, PhD (L)
Claudia Dumestricu, PhD (D)
Sayantani Mukherjee, PhD (L)
Mark Pritchard, PhD (E)
Jeffrey Stinson, PhD (E)
Theresa Wilson, PhD (E)
The marketing curriculum provides background for careers in sales, advertising, marketing management, research, analysis, and retail management. Marketing topics include researching and analyzing consumers, market demand, pricing, product distribution, and development, and communication in order to develop marketing strategies and policies. Students must earn a C or higher in all required marketing management specialization courses.

Business Foundation Courses

- ACCT 251 - Financial Accounting Credits: (5)
- ACCT 252 - Managerial Accounting Credits: (5)
- BUS 102 - Business Computer Skills Credits: (4)
- BUS 110 - Professional Development 1 Credits: (1)
- BUS 221 - Introductory Business Statistics Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 130 - Foundations for Business Analytics Credits: (5)
- OR MATH 130 - Finite Mathematics Credits: (5)

Select one from the following: 5 credits

- MATH 153 - Pre-Calculus Mathematics I Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits:
(5)
- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Foundation Total Credits: 40

Business Core Courses

- BUS 301 - Contemporary Approaches to Personal and Professional Development Credits: (3)
- OR MGT 200 - Essential Skills for Business Professionals Credits: (5)
- BUS 310 - Professional Development 2 Credits: (1)
- COM 301-Public Speaking for Business and Organizations Credits: (2)
- ECON 202 - Principles of Economics Macro Credits: (5)
- ENG 311 - Business Writing Credits: (3)
- FIN 370 - Introductory Financial Management Credits: (5)
- MGT 382 - Principles of Management Credits: (5)
- MIS 386 - Management Information Systems Credits: (5)
- MKT 362 - Essential Marketing Concepts Credits: (5)
- SCM 310 - Supply Chain Management Credits: (5)

Business Core Total Credits: 39-41

Marketing Management Specialization Courses

Required Courses

- MKT 468 - Consumer Behavior Credits: (5)
- MKT 469 - Market Research Credits: (5)
- MKT 470 - Marketing Problems and Policy Credits: (5)

Select a minimum of 10 credits from the following:

- BUS 490-Cooperative Education Credits: (1-12) (May be taken for 1-6 credits)
- ECON 310 - International Economics Credits: (5)
- MKT 364 - Marketing Promotion Management Credits: (5)
- MKT 365 - International Marketing Credits: (5)
- MKT 370 - Sports Marketing and Sponsorship Credits: (5)
- MKT 371 - Sponsorship and Promotion in Sport Business Credits: (5)
- MKT 372 - Revenue Generation and Finance in Sport Business Credits: (5)
- MKT 376 - Foundations of Digital Marketing Credits: (5)
- MKT 476 - Advanced Digital Marketing Credits: (5)

Total Specialization Credits: 25

College of Business Capstone

- BUS 489 - AACSB Assessment Credits: (2)
- MGT 489 - Strategic Management Credits: (5)

Capstone Total Credits: 7
Total Credits: 111-113

College and Department Information

## College of Business Admission Requirements

For information on admission requirements, please go to: College of Business.

Management Department
College of Business

## Business Minor

The business minor provides students with an introduction to several key areas of business administration. Business minors are only available to students with declared majors. Declaration forms, with instructions, are available online, in department and in center offices. Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the business administration minor requirements.

Business Minor Core

Required Courses

- ACCT 252 - Managerial Accounting Credits: (5)
- OR ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- BUS 241 - Legal Environment of Business Credits: (5)
- BUS 374 - Personal Investments Credits: (5)
- OR ECON 201 - Principles of Economics Micro Credits: (5)
- HRM 381-Management of Human Resources Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- MGT 380 - Organizational Management Credits: (5)

Total Credits: 30

College and Department Information

Finance and Supply Chain Management Department College of Business

## Entrepreneurship Minor

This program would focus on helping students develop the skills, perspectives and relationships that make for a successful entrepreneur. This program would play to the strengths of the university by complementing the offerings of departments across the university and the needs of students who are interested in fields where self-employment is a valuable option or where successful employment involves entrepreneurial capabilities.

## Program Requirement

Students are required to start a business or non-profit enterprise while in the program.

Core Requirements - Credits: 19-21

- MGT 200 - Essential Skills for Business Professionals Credits: (5)
- ENTP 287-Applied Product Development Credits: (5)
- MGT 288 - Intellectual Property and Prototype Development for Products and Services Credits: (3)
- MGT 289 - Business Plan Development Credits: (3)
- OR MGT 487 - Entrepreneurism and Small Business Management Credits: (5)
- MGT 488 - Plunge Class Credits: (3)

Required Courses - Credits: 10

- ACCT 251 - Financial Accounting Credits: (5)
- OR ACCT 252 - Managerial Accounting Credits: (5)
- OR ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- OR MKT 362 - Essential Marketing Concepts Credits: (5)

Total Credits: 29-31

## Human Resource Management Minor


#### Abstract

The human resource management minor is designed to augment the student's undergraduate degree with a focused examination of the role of human resources in business operations. Students will explore the application of training and development, staffing and employee relations, and test development issues as they apply specifically to the role of human resource managers. Students will take a sampling of courses offered as a part of the College of Business' Human Resource Specialization, as well as business-relevant, organizational psychology courses. The human resource management minor will provide curriculum to prepare students for a career in human resource management as generalists, specialists and managers.


Required Courses Credits: 9

- HRM 381 - Management of Human Resources Credits: (5)
- PSY 456 - Industrial and Organizational Psychology Credits: (4)

Elective Courses (choose 3 of the possible 4) Credits: 14-15

- HRM 442 - Training and Development Credits: (5)
- HRM 445-Organizational Staffing Credits: (5)
- HRM 479 - Employee Relations Credits: (5)
- PSY 444 - Tests and Measurements Credits: (4)

Total Credits: 23-24

College and Department Information

## Sport Business Minor

The sport business minor is designed to augment the student's undergraduate degree with a focused examination of the sport business industry. Students will explore the application of marketing, management, law, finance and other business principles as they apply specifically to the sport industry. The sport certificate will provide curriculum to prepare students for a career in corporate, professional, intercollegiate or amateur sport organizations.

Students must achieve a C- or higher in all courses to earn the Sport Business Minor.

Required Courses Credits: 15

- MGT 380- Organizational Management Credits: (5)
- OR MGT 382 - Principles of Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- OR MKT 362 - Essential Marketing Concepts Credits: (5)
- MKT 370 - Sports Marketing and Sponsorship Credits: (5)

Electives Courses: Choose a minimum of 15 credits from the following: Credits: 15-16

- BUS 401 - Business Boot Camp Credits: (1)
- MGT 394 - Legal Considerations in Sport Business Credits: (5)
- MGT 395 - Leadership in Business Organizations Credits: (5)
- MKT 371 - Sponsorship and Promotion in Sport Business Credits: (5)
- MKT 372 - Revenue Generation and Finance in Sport Business Credits: (5)

Total Credits: 30-31
College and Department Information

Management Department
College of Business

## Sport Business Certificate

The sport business certificate is designed to augment the student's College of Business degree with a focused examination of the sport business industry. Students will explore the application of marketing, management, law, finance, and other business principles as they apply specifically to the sport industry. The sport certificate will provide curriculum to prepare students for a career in corporate, professional, intercollegiate or amateur sport organizations.

Students must achieve a C- or higher in all courses to earn the sport business certificate.

Required Courses Credits: 15

- MGT 380- Organizational Management Credits: (5)
- OR MGT 382 - Principles of Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- OR MKT 362 - Essential Marketing Concepts Credits: (5)
- MKT 370 - Sports Marketing and Sponsorship Credits: (5)

Electives Courses: Choose a minimum of 15 credits from the following: Credits: 15-16

- MGT 394 - Legal Considerations in Sport Business Credits: (5)
- MGT 395 - Leadership in Business Organizations Credits: (5)
- MKT 371 - Sponsorship and Promotion in Sport Business Credits: (5)
- MKT 372 - Revenue Generation and Finance in Sport Business Credits: (5)
- BUS 401 - Business Boot Camp Credits: (1)

Total Credits: 30-31

College and Department Information
Management Department
College of Business

## Mathematics Department

College of the Sciences
Ellensburg
Bouillon Hall, room 108
Mail Stop 7424
509-963-2103
Fax: 509-963-3226
www.cwu.edu/math
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Stuart Boersma, PhD

## Professors

Christine Black, PhD, mathematics education (Westside)
Stuart F. Boersma, PhD, differential geometry, general relativity Yvonne Chueh, PhD, actuarial science, statistics
Timothy Englund, PhD, group theory, representation theory, statistics
James D. Harper, PhD, harmonic analysis
Dominic Klyve, PhD, computational number theory, history of mathematics, statistics

Scott M. Lewis, PhD, mathematics education, history of mathematics
Aaron Montgomery, PhD, topology, algebra
Mark Oursland, EdD, mathematics education

## Associate Professors

James Bisgard, PhD, analysis
Jonathan Fassett, PhD, topology, dynamical systems
Kathryn Temple, PhD, actuarial science, probability

## Assistant Professors

Peter Klosterman, PhD, mathematics education
Jean Marie Linhart, PhD, applied mathematics
Sooie-Hoe Loke, PhD, mathematics
Janet Shiver, PhD, mathematics education
Brandy Wiegers, PhD, applied mathematics

## Senior Lecturers

Jim Miller, MAT, mathematics
Richard Trudgeon, MA, administration and curriculum

## Lecturers

Molly Andaya, MAT, mathematics
Tim Brown, MAT, mathematics
Jamie Fife, MAT, mathematics
Mathew Pruis, PhD. Advance data analytics and data science
Stephen Stein, PhD, educational administration
Tyler Suronen, MS, mathematics
Drewcilla Walter, MS, mathematics

## Staff

Brenda Bland, secretary supervisor

## Department Information

Mathematics is an expanding and evolving body of knowledge as well as a way of perceiving, formulating, and solving problems in many disciplines. The subject is a constant interplay between the worlds of thought and application. The student of mathematics will find worthy challenges and the subsequent rewards in meeting them.

The general student will find preparatory courses in pre-calculus mathematics and traditional mathematics courses such as calculus, linear algebra, geometry, abstract algebra, and analysis. Also, more specialized courses in discrete mathematics, number theory, and the history of mathematics are offered. Special needs of computer science majors, elementary education majors, and general education requirements are also met by courses in the mathematics department.

For those desiring concentrated work in mathematics, the mathematics department offers four programs leading to bachelor's degrees. A bachelor of arts or bachelor of science in mathematics prepares the student as a mathematician for industry or graduate work. A bachelor of arts in secondary teaching prepares the student to teach at the junior, middle, or high school levels. A bachelor of science in mathematics with an actuarial science specialization prepares the student to work as an actuary or in applied statistics. A mathematics minor and a secondary teaching minor are also available.

One graduate degree is offered: the master of arts for teachers. This is described in the graduate section of the catalog.

All programs (major, minor, including electives) must be on file
and approved by the department at least one academic year preceding graduation.

## Admission and Placement Notes

Enrollment in MATH 100C, MATH 101, MATH 102, MATH 130, and MATH 164 requires a satisfactory score on one of the following tests: SAT, ACT, COMPASS Test, or the Intermediate Assessment Test.
The scores on the SAT or ACT tests must have been achieved within the last three years before math placement. The student with insufficient test scores is encouraged to enroll in developmental classes. For more information drop by the Math Center in Hertz Hall, room 101 or call 509-963-1834.
Students who wish to enroll in pre-calculus (MATH 153 or MATH 154) or calculus (MATH 170 or MATH 172) and who have not had the necessary prerequisite course at a college or university must take the mathematics placement test. Students will be placed in accordance with their results on this test as determined by the mathematics department. Students may be placed into pre-calculus I (MATH 153) if they received a B or higher in a one-year high school calculus course. See the mathematics department for more details.
Admission to any mathematics course having prerequisites requires either a suitable math placement test score or a grade of 2.0 or higher in each listed prerequisite to that course.

## Admission Requirements for Mathematics Teaching Secondary Program

Admission to the mathematics teaching secondary major or certificate program is selective. A cumulative grade point average of 2.50 is required in the pre-admission courses listed below. Further, students must successfully complete MATH 272 and MATH 265 by spring quarter of the academic year of their acceptance into the program. A completed application must include the standard major application form and a mathematics-advisor-approved graduation plan.

Students planning to major or take the certificate in secondary mathematics teaching must first take MATH 172, MATH 173, MATH 265, and MATH 272; be accepted as a mathematics education major or accepted into the certificate program; and be preliminary accepted into the Professional Education Program to enroll in MATH 299E, Orientation Seminar: Secondary Mathematics, fall quarter.

Students interested in the Secondary Mathematics Teaching Program need to meet with a mathematics education advisor during their first quarter at CWU. Students taking this major are required to complete the Professional Education Program with the exception of EFC 315, EFC 330, EFC 340, EFC 350, and EFC 416 ( 37 total credits required).

## Pre-admission Requirements

Applicants for admission into the Secondary Mathematics Teaching Program:

Must have completed English and Math basic skills courses or have completed an AA degree.

Must have completed MATH 272 and MATH 265, with a grade of C or higher, before enrolling MATH 299E.
Must be preliminarily accepted into the Professional Education Program.

## Admission Requirements for Mathematics Major and Minor

 Admission to any major in the mathematics department will be considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Transfer students with the calculus background will generally take and successfully complete ( 2.0 or higher) 10 hours of math beyond calculus to be admitted to a major. Application forms are available from the mathematics department office. Students must meet with an advisor in the mathematics department before being considered for major or minor. In addition, students must earn a minimum grade of C in any course that fulfills a major or minor requirement.
## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/math or by contacting the department directly.

## Mathematics: Middle-Level Education, BA

This major partially satisfies the criteria for a teaching endorsement in Middle Level Mathematics (4-9), qualifying students to teach mathematics at the middle school or junior high levels. Students are encouraged to seek a second major or minor in an approved area. The coursework provides experiences in mathematics content and pedagogy. The major addresses the recommendations from the Mathematical Association of America, the American Mathematical Society, and the Washington State competencies for middle level math teachers.

This major requires completion of all Teacher Certification and Professional Education Program requirements. The STEM Teaching Program (44 credits) serves as an alternative to the Professional Education Program. Students must be admitted to an approved teacher preparation program and have successfully completed Math 130 and Math 154 prior to acceptance into this major. Students who successfully complete the Mathematics: Middle Level Education, BA and an approved teacher preparation program are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and minor courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the middle level mathematics teaching advisor as soon as possible to develop a course of study.

## Admission Requirements

Admission to the middle level mathematics major will be considered after all prerequisites are met. Students must have a GPA of 3.0 or higher and must have earned a C or higher in any course taken in the MLM major and an approved teacher education program including prerequisite courses.

## Graduation Requirements

Students must complete all courses in the major and an approved Teacher Certification and Professional Education Program which may be the STEM Teaching Program with a C or higher and must maintain a GPA of 3.0 or higher.

## Program Requirements

Students must complete all courses in the major and an approved teacher preparation program with a C or higher and must maintain a GPA of 3.0 or higher.

Prerequisites Credits: 10

Students must complete Math 130 and Math 154 before being admitted to the major. Students with appropriate placement scores may test out of the classes.

- MATH 130 - Finite Mathematics Credits: (5)
- MATH 154 - Pre-Calculus Mathematics II Credits: (5)

Required Courses Credits: 40

- MATH 170 - Intuitive Calculus Credits: (5)
- MATH 206 - Mathematics for Teachers: Number and Operations Credits: (4)
- MATH 226 - Mathematics for Teachers: Geometry and Measurement Credits: (4)
- MATH 232 - Discrete Modeling for Middle-level Teachers Credits: (4)
- MATH 306 - Middle-level Mathematics Standards Review Credits: (2)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- MATH 316 - Mathematics for Teachers: Proportional Reasoning and Algebra Credits: (4)
- MATH 405 - Probability and Statistics for Teachers Credits: (4)
- MATH 406 - Algebra for Teachers Credits: (4)
- MATH 456 - Geometry for Teachers Credits: (4)

Total Credits: 50

STEM Teaching Program Credits: 44-50 (or Professional Education Program)

STEM Teaching Program
Professional Education Program

Total Credits: 94-100

College and Department Information

Mathematics Department
College of the Sciences

## Mathematics: Secondary Education, BA

This major is the most efficient pathway for students seeking teaching endorsement in secondary mathematics.

Admission Requirements for BS Mathematics Majors,
Mathematics Minor and and BA Mathematics: Secondary Education
Admission to any of the above majors in the mathematics department will be considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Students with credit for MATH 173 should contact the Mathematics Department to meet with a faculty advisor. Application forms are available from the mathematics department office. Students must meet with a mathematics faculty advisor before being considered for the mathematics majors or minor. Students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

## Additional Requirements for Mathematics: Secondary Education

The Mathematics: Secondary Education BA, Mathematics (Small Plan) BS, or Applied Mathematics BS Majors partially satisfy the criteria for teaching endorsement in Mathematics (512), qualifying students to teach mathematics at the high school, middle, or junior high levels. Students who successfully complete one of these three majors with the listed elective restrictions and the STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the secondary mathematics teaching advisor as soon as possible to develop a course of study.

## Graduation Requirements

Students must earn an C or higher in each course in the major.

## Required Courses

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 314 - Probability and Statistics Credits: (5)
- MATH 332 - Discrete Models Credits: (4)
- MATH 355 - College Geometry I Credits: (4)
- MATH 360 - Algebraic Structures I Credits: (3)
- MATH 361 - Algebraic Structures II Credits: (3)
- MATH 376 - Differential Equations I Credits: (3)
- MATH 410A - Advanced Statistical Methods I Credits: (4)
- MATH 430 - Introduction to Theory of Numbers Credits: (3)
- MATH 455 - College Geometry II Credits: (3)

Total Credits: 61

STEM Teaching Program Credits: 44-50 (or Professional Education Program)

STEM Teaching Program
Professional Education Program

Total Credits: 105-111

College and Department Information

Mathematics Department
College of the Sciences

## Actuarial Science Major, BS

An actuary is a business professional who uses specialized skills from probability, statistics and economics to define, analyze, and solve financial and social problems. Actuaries create and manage insurance programs that reduce the adverse financial impact of both expected and unexpected events, such as illnesses, accidents, death, or catastrophes. In addition, actuaries design healthcare and pension plans, making sure there are sufficient resources to pay health and retirement benefits while charging participants a fair price. Actuaries are also in demand in the growing enterprise risk management field, helping companies analyze and hedge risks.

The bachelor of science in actuarial science is listed below and is designed to prepare a student in both the mathematics and business areas necessary for success in the rigorous but rewarding actuarial profession.

## Admission Requirements

Completion of MATH 172 and MATH 173 with grades of C or higher.

## Graduation Requirements

All courses in the major must be completed with grades of C or higher.

Required Courses

- ACCT 251 - Financial Accounting Credits: (5)
- OR ACCT 301-Accounting Skills for Non-Business Majors Credits: (5) (ACCT 301 recommended.)
- CS 105-The Logical Basis of Computing Credits: (4)
- OR CS 110 - Programming Fundamentals I Credits: (4)
- CS 367 - Advanced Visual Basic Programming Credits: (4)
- ECON 201 - Principles of Economics Micro Credits: (5)
- ECON 202 - Principles of Economics Macro Credits: (5)
- FIN 370 - Introductory Financial Management Credits: (5)
- FIN 475 - Investments Credits: (5)
- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- OR MATH 314 - Probability and Statistics Credits: (5)
- MATH 410A - Advanced Statistical Methods I Credits: (4)
- MATH 410B - Advanced Statistical Methods II Credits: (4)
- MATH 411A - Probability Theory Credits: (4)
- MATH 411B - Mathematical Statistics I Credits: (3)
- MATH 411C - Mathematical Statistics II Credits: (3)
- MATH 418A - Financial Mathematics I Credits: (4)
- MATH 418B - Financial Mathematics II Credits: (4)
- MATH 418C - Financial Mathematics III Credits: (4)
- MATH 499A - Senior Seminar: Actuarial Science Credits: (2)

Select one of the following sequences - Credits: 11

Short-Term Actuarial Mathematics

- MATH 417A - Short-Term Actuarial Mathematics I Credits: (4)
- MATH 417B - Short-Term Actuarial Mathematics II Credits: (4)
- MATH 417C - Short-Term Actuarial Mathematics III Credits: (3)
- OR

Long-Term Actuarial Mathematics

- MATH 419A - Long-Term Actuarial Mathematics I Credits: (4)
- MATH 419B - Long-Term Actuarial Mathematics II Credits: (4)
- MATH 419C - Long-Term Actuarial Mathematics III Credits: (3)

Total Credits: 105

College and Department Information

Mathematics Department
College of the Sciences

## Applied Mathematics Major, BS

The applied mathematics major is intended primarily for students interested in applications of mathematics to other disciplines.

Admission Requirements for Mathematics Major and Minor Admission to any major in the mathematics department will be considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Transfer students with the calculus background will generally take and successfully complete ( 2.0 or higher) 10 hours of math beyond calculus to be admitted to a major. Application forms are available from the mathematics department office. Students must meet with an advisor in the mathematics department before being considered for major or minor. In addition, students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

## Required Courses Credits: 70

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 299S - Seminar - Math Major Orientation Credits: (4)
- MATH 314 - Probability and Statistics Credits: (5)
- MATH 365 - Linear Algebra II Credits: (4)
- MATH 371 - Advanced Calculus Credits: (4)
- MATH 376 - Differential Equations I Credits: (3)
- MATH 377 - Differential Equations II Credits: (3)
- MATH 475 - Mathematical Modeling Credits: (4)
- MATH 476 - Numerical Methods and Analysis I Credits: (4)
- MATH 477 - Numerical Methods and Analysis II Credits: (4)
- MATH 499S - Senior Seminar Credits: (2)

Choose one of the following two options:

- MATH 335-Combinatorics and Graph Theory Credits: (4)
- MATH 351 - Point Set Topology Credits: (4)

Department-Approved Electives Credits: 6

Mathematics department-approved electives numbered 300 or higher including courses from departments that apply mathematics (such as biology, chemistry, computer science, economics, engineering, finance, geological science, mathematics or physics). No more than 2 credits in MATH 407 may be applied.

Total Credits: 76

## Mathematics Major, BS (Large Plan)

[^11]calculus background will generally take and successfully complete ( 2.0 or higher) 10 hours of math beyond calculus to be admitted to a major. Application forms are available from the mathematics department office. Students must meet with an advisor in the mathematics department before being considered for major or minor. In addition, students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

## Required Courses

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 299S - Seminar - Math Major Orientation Credits: (4)
- MATH 314 - Probability and Statistics Credits: (5)
- MATH 335 - Combinatorics and Graph Theory Credits: (4)
- MATH 351 - Point Set Topology Credits: (4)
- MATH 365 - Linear Algebra II Credits: (4)
- MATH 371 - Advanced Calculus Credits: (4)
- MATH 376 - Differential Equations I Credits: (3)
- MATH 377 - Differential Equations II Credits: (3)
- MATH 461 - Abstract Algebra I Credits: (4)
- MATH 462 - Abstract Algebra II Credits: (4)
- MATH 471 - Advanced Analysis I Credits: (4)
- MATH 472 - Advanced Analysis II Credits: (4)
- MATH 499S - Senior Seminar Credits: (2)

Math Electives - Credits: 20

Electives Courses: 207, 320, 337, 372, 398, or any 400-level MATH course (excluding MATH 405, 406, 486, 490, 491, 499E). At most 4 credits total can be from MATH 207 and 407.

Total Credits: 98

College and Department Information

Mathematics Department
College of the Sciences

## Mathematics Major, BS (Small Plan)

The small plan major is intended primarily for students completing a double major.

## Admission Requirements for Mathematics Major and Minor

 Admission to any major in the mathematics department will be considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Transfer students with the calculus background will generally take and successfullycomplete ( 2.0 or higher) 10 hours of math beyond calculus to be admitted to a major. Application forms are available from the mathematics department office. Students must meet with an advisor in the mathematics department before being considered for major or minor. In addition, students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

Required Courses

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 299S - Seminar - Math Major Orientation Credits: (4)
- MATH 335 - Combinatorics and Graph Theory Credits: (4)
- MATH 351 - Point Set Topology Credits: (4)
- MATH 365 - Linear Algebra II Credits: (4)
- MATH 371 - Advanced Calculus Credits: (4)
- MATH 499S - Senior Seminar Credits: (2)

At least two courses from the following - Credits: 8

- MATH 461 - Abstract Algebra I Credits: (4)
- MATH 462 - Abstract Algebra II Credits: (4)
- MATH 471 - Advanced Analysis I Credits: (4)
- MATH 472 - Advanced Analysis II Credits: (4)

Math Electives - Credits: 8

Electives Courses: 207, 320, 337, 372, 376, 377, 398, or any 400-level MATH course (excluding MATH 405, 406, 486, 490, 491, 499S). At most 4 credits total can be from MATH 207 and 407.

Applications of Math Electives - Credits: 6

Math department-approved electives in Application oriented courses, numbered 300 or higher (could be in Math, Physics, Econ, Finance, Chemistry, Biology)

Total Credits: 73

College and Department Information

Mathematics Department
College of the Sciences

## Mathematics Minor

## Program Requirements

Students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

## Required Courses Credits: 10

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Department-Approved Electives Credits: 12

- At least 12 credits of electives in mathematics, which MUST include at least one of MATH 260 or MATH 265. Credits: (12)
- MATH 260 - Sets and Logic Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 311 - Statistical Concepts and Methods Credits: (5)
- MATH 314 - Probability and Statistics Credits: (5)
- MATH 330 - Discrete Mathematics Credits: (5)
- MATH 335 - Combinatorics and Graph Theory Credits: (4)
- MATH 351 - Point Set Topology Credits: (4)
- MATH 376 - Differential Equations I Credits: (3) Other MATH courses, numbered 200 or higher, may be used to satisfy the elective requirements, subject to approval of the mathematics department.

Total Credits: 22

College and Department Information

Mathematics Department
College of the Sciences

## McNair Scholars Program

Undergraduate Studies and Research
Ellensburg
Hertz Hall, room 201
Mail Stop 7516
509-963-2869
www.cwu.edu/menair-scholars
See website for how these programs may be used for educational and career purposes

## Director

Lucinda Carnell

## Staff

Marna Carroll, faculty coordinator
Kristina Owens, program coordinator

## Program Information

The Ronald E. McNair Scholars Program at CWU is funded by a grant from the Department of Education under the TRIO Programs.
This is an academically rigorous program, not a scholarship. The program is designed to provide underrepresented (low-income and first-generation, and/or ethnic minority) students with the training and opportunity to prepare for and successfully apply to
graduate school programs. To this end, admitted scholars are required to complete graduate school preparation seminars. The goal of the program is for scholars to attain their doctorates and teach at universities.

A cornerstone of this program is the linking of scholars with faculty mentors. Students are expected to complete a summer research internship under the supervision of a research mentor. Scholars also have the option of a teaching internship during one academic quarter and/or pursuing a leadership development track during their second year as a McNair Scholar.

CWU students are encouraged to apply to the McNair Scholars Program as sophomores or juniors and are selected on the basis of their academic excellence, career objectives and faculty recommendations.

## Admission Requirements

Students must meet the following eligibility requirements:
Be a U.S. citizen or permanent resident;
Be a low-income student who is also a first-generation college student; or must be a member of a group that is underrepresented in graduate education (African American, American Indian/Alaskan Native, Hispanic/Latino, or Native Hawaiian/Pacific Islander);
Be currently enrolled as an undergraduate in a degree program at CWU
Must have completed 90 quarter credits by the time you begin the McNair Scholars Program
Must have at least one year remaining before graduation
Must have a minimum cumulative GPA of 2.9 and a major GPA of at least 3.1
Must express a desire to attain a PhD
Complete an application, complete with form, two letters of recommendation, and a personal statement. Application materials and deadlines are available on the program website.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/menair-scholars or by contacting the department directly.

## Military Science Department

(Army Reserve Officers' Training Corps)<br>College of Education and Professional Studies<br>Ellensburg<br>Lind Hall, rooms 207 and 220<br>Mail Stop 7569<br>509-963-3518<br>Fax 509-963-3588<br>www.cwu.edu/army<br>See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
LTC Jonathan S. Ackiss, MS

## Professor

LTC Jonathan S. Ackiss, logistics, MS administration, sociology

## Assistant Professors

CPT Dustin M. Johnston, finance corps
CPT Ian S. Boyer, signal corps, criminology
CPT Zachary L. Brown, armor, MA organizational leadership
CPT Lon C. McBride, infantry, BS environmental science
CPT Jerimiah A. Wood, logistics, BS business administration

## Lecturer

MSG Thomas A. Pickerel, Infantry

## Staff

Kevin I. Bannister, GS, supply technician
David M. Mirro, GS, human resource technician
Andrew J. Van Den Hoek, recruitment operations officer Sigrid R. Welker, secretary senior

## Department Information

The Department of Military Science's courses are designed to prepare scholars, athletes, and junior leaders for commissioning in the U.S. Army. Students who complete the Military Science Program and meet commissioning requirements will be eligible for a commission as a second lieutenant in the U.S. Army, Army Reserve, or Army National Guard. The on-campus instructional program is designed to fit into the regular academic schedule of the university and is taught by Army professors and instructors.

The academic program consists of military science, leadership labs, and off-campus summer training. Academic studies include courses in basic military tactics, principles of leadership, officership, communication, personnel and logistics management, staff management procedures, physical conditioning, land navigation, and military law. Various training activities are scheduled each quarter to further familiarize the student with the ROTC Program.

Textbooks and uniform items are furnished through the Department of Military Science. The MSL 100 and MSL 200 classes are open to any student to explore their military interests and are non-contractual. Advancement to MSL 300 and MSL 400 courses to complete a minor in military science is by permission only.

Upon completion of the military science core (OPTION 1, 2, or 3 ; see below) requirements, leadership development and assessment course, and receipt of a bachelor's degree, students seeking an officer commission are able to select full-time employment (active Army) or part-time employment through the Army National Guard or the Army Reserve.

Additional information concerning the Military Science Program may be obtained by writing: Central Washington University, Military Science, Peterson Hall, 400 E. University Way, Ellensburg, Washington 98926-7569, stopping by the military science department in Peterson Hall, room 202, calling 509-9633518 , or by visiting the military science website at www.cwu.edu/~roo/.

Post Bachelor's Degree Fellowships: Graduating seniors may compete for several fully-funded Army graduate fellowships.

Transfer Students: Students transferring from other institutions, including community colleges considering entrance in the Military Science Program must make an appointment for a departmental interview for candidacy and scholarships.

Graduate Students: Graduate students interested in obtaining a commission as a second lieutenant should contact the Department of Military Science in Peterson Hall for academic planning and application.

Veterans: Veterans are encouraged to contact one of the military science academic advisors for information and outline of benefits available while participating in the ROTC program.

Scholarships: ROTC scholarships pay tuition and required fees. They're awarded on merit-academic achievements, extracurricular activities, and personal interviews. Four-, threeand two-year scholarships are available each academic year to qualified students. Applications can be obtained from the military science department.

Stipends: All fully contracted cadets receive a stipend (\$300 freshman, $\$ 350$ sophomore, $\$ 450$ junior, $\$ 500$ senior) for each academic month plus an allowance for books and other educational items. Non-scholarship students can receive the stipend as a contracted cadet during their last two years.

Special Training Opportunities: Summer training opportunities are through the Department of the Army Schools. The available schools include: airborne (parachute) training, air assault training, Northern Warfare School, and special forces.
Additionally, Cadet Troop Leadership Training (CTLT) is also available to all cadets who have completed the military science minor core, been accepted in the military science minor, completed the MSL 301, 302, and 303 courses of study, and the leader development and assessment course. CTLT provides leadership experience in an active Army unit for two weeks prior to returning for the senior year of college study. CTLT is available in the U.S., Europe, and the Pacific Rim. Specialized training opportunities are by permission only.

## Prerequisites for Advancement to the Military Science Minor

Admission into the MSL minor will be based upon an overall grade point average (GPA) of 2.5 .
The department chair may admit a limited number of students with GPAs under 2.5.
Students seeking the military science minor must complete all application requirements prior to declaring military science as a minor.
Complete the core requirements with a GPA of 3.0 or higher.
The Department of Military Science reserves the right to modify these requirements in special cases.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the
department website: www.cwu.edu/army or by contacting the department directly.

## Military Science Minor

Participation in this minor is contingent upon completion of the ROTC core (Option 1, 2 or 3) listed above and acceptance as a contracted student in the advanced course in the Army ROTC program. Application may be made at the military science department, Peterson Hall.

Military Science Minor Core

## Option 1

No military obligation is incurred under Option 1 or Option 3.

## Required Courses

- MSL 101 - Foundations of Officership Credits: (1)
- MSL 102 - Basic Leadership Credits: (2)
- MSL 103 - Advanced Leadership Credits: (2)
- MSL 201 - Individual Leadership Studies Credits: (2)
- MSL 202 - Leadership and Teamwork Credits: (2)
- MSL 211 - Land Navigation Credits: (2)

Military Science Core Total Credits: 11
Option 2

Required Courses

- Select 3 credits from the list of approved electives Credits: (3)
- MSL 292 - Leader's Training Course, Internship Credits: (8) (This course can be taken as non-credit)

Military Science Core Total Credits: 11
Option 3

No military obligation is incurred under Option 1 or Option 3.
Verification of completion of prior military service initial entry program. This option is by permission only. See department for further information.

## Required Courses

- HIST 314 - Military History of the United States Credits: (5)
- MSL 301 - Leadership and Problem-Solving Credits: (3)
- MSL 302 - Leadership and Ethics Credits: (3)
- MSL 303 - Leadership and Small Group Tactics Credits: (3)
- MSL 401 - Leadership and Management Credits: (4)
- MSL 402 - Officership Credits: (4)
- MSL 403 - Officership II Credits: (2)

Select from the following - Credits: 2-5

- CS (Computer Science), Any Course Credits: (4-5)
- IT 101 - Computer Applications Credits: (3)

Total Credits: 26-29

College and Department Information

Military Science Department
College of Education and Professional Studies

## Music Department

College of Arts and Humanities
Ellensburg
Jerilyn S. McIntyre Music Building
Mail Stop 7458
509-963-1216
Fax: 509-963-1239
www.cwu.edu/music
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Interim Chair
Nikolas Caoile, DMA

## Interim Associate Chair

Bret Smith, PhD

## Professors

Joseph Brooks, MM, clarinet, saxophone, woodwind methods
Chris Bruya, MM, jazz studies
Mark Goodenberger, MM, percussion
John Harbaugh, MME, trumpet, jazz studies
Mark Lane, MM, music education, band
Carrie Rehkopf-Michel, MM, violin, chamber music, Kairos
String Quartet
John Michel, MM, cello, chamber music, pedagogy, Kairos
String Quartet
Hal Ott, DM, flute, literature
John F. Pickett, DM, piano, literature, pedagogy
Vijay Singh, MAT, jazz studies, choir, voice
Jeffrey Snedeker, DMA, french horn, music history
Gary Weidenaar, DMA, choir, conducting, music education

## Associate Professors

Gayla Blaisdell, PhD, voice, opera
Nikolas Caoile, DMA, orchestra, conducting
Daniel Lipori, DMA, music history, bassoon, double reed methods
Bret Smith, PhD, music education, string pedagogy

## Assistant Professors

Martin Kennedy, DMA, theory, composition
John Neurohr, DMA, trombone, brass pedagogy, brass literature Lewis Norfleet, MM, bands, music education, conducting

Mark Samples, PhD, musicology, general education
Melissa Schiel, DMA, voice, pedagogy

## Lecturers

Tor Blaisdell, MM, voice
Laura Goben, BM oboe
Teresa Harbaugh, MM, class piano
Aaron Hirsch, MM, orchestra, conducting
Anna Jensen, MM, string bass
David McLemore, MM, tuba, euphonium, history of jazz
Kirsten Neurohr, DMA, theory, music appreciation
Adam Pelandini, MM, saxophone
Scott Peterson, DMA, men's choir
Barbara Pickett, MM, piano, class piano
Michelle Rahn, DMA, viola
Maria Roditeleva-Wibe, PhD, music history, theory, world music
Leslie Schneider, MM, music education
Emelie Spencer, MM, voice, theory
Norm Wallen, MM, theory

## Staff

Marcie Brown, program assistant
Allen Larsen, hall manager, audio technician, web manager
Teresa Larsen, secretary supervisor
Shannon Martin, fiscal specialist
Kirsten Neurohr, interim advisor/recruiter
Harry Whitaker, piano technician

## Mission

The Department of Music is a community of artists, scholars, and educators dedicated to achieving the highest standards of musical knowledge, performance, and teaching. The department is committed to preparing students for careers in music, providing the opportunity to become literate, skilled, knowledgeable, and confident music educators, performers, and practitioners, able to influence and enrich the musical lives of the communities in which they serve. The department provides opportunities for the general student to study music as an essential part of a liberal arts education and engage in artistic experiences, serve as a leader for K-12 music education, and provides opportunities for the general public to experience music performances of the highest quality in a broad range of styles and genres.

## Vision

The Department of Music will be recognized and respected for its challenging curriculum and supportive environment, for the excellence of its student, ensemble and faculty performances in a broad range of styles and genres, and for the fulfillment of its motto: "Where teaching is a performing art."

## Core Values

As a community of practicing musicians and scholars, we believe that the department's mission is best realized when we:

- Hold each student's greatest good as our primary concern
- Provide models of the highest ethical and moral standards
- Deem outstanding teaching to be the most important attribute of the faculty
- Implement a rigorous curriculum in each degree program
- Regard each degree program as equally valid, with no program intrinsically superior to any other
- Create an intellectually and emotionally safe environment in which students can learn, develop and mature
- Respect and embrace diversity in all its forms
- Respond creatively and thoughtfully to the inevitable changes of the fluid society in which we live


## Accreditation

The department is an institutional member of the National Association of Schools of Music (NASM).

## Admission Requirements

All entering students who plan to pursue either a major or minor in the music department must audition for acceptance into the program before a faculty committee. See the department's website for audition information.

## Common Exit Requirements

All music majors must pass a keyboard proficiency exam as a graduation requirement. Music education majors will not be scheduled for student teaching until this proficiency is completed.

## Standards

Music education majors must meet the standards for acceptance into the Teacher Certification Program.

## Required Participation:

- All entering music majors with no previous college music theory credits must pass an online exam in music fundamentals as a prerequisite for MUS 144, the first quarter of the theory sequence (fee required).
- All entering music majors with college credits in music theory must take an in-house diagnostic theory exam, which will be given during the transfer student orientation sessions and before the fall quarter begins. Credit for previous college theory courses may be given based on the results of this exam. Details about both exams can be found on the department website.
- All music majors must enroll in a large ensemble appropriate to their major performance area during each quarter of enrollment as a full-time student. Enrollment in either Women's Choir or Men's Choir can be substituted for enrollment in a choral large ensemble for a maximum of three quarters.


## Graduation Requirements

- All music majors must pass the required piano proficiency exam. MUS 154A (Piano Class III) must be retaken until this requirement is fulfilled.
- All music majors must attend four (4) convocations and an average of eight (8) recitals/concerts for each quarter, (Fall, Winter, and Spring) that they are in residence.


## Departmental Honors

Consult the department website for information about the departmental honors program.

## Certification Programs

Students enrolled in music education degree programs will be concurrently enrolled in the Teacher Certification Program through the College of Education and Professional Studies, and upon completion of all requirements will be recommended to Washington's Office of the Superintendent of Public Instruction (OSPI) for the Residency Teacher Certificate with endorsement in K-12 Choral, General, and/or Instrumental Music. The department also offers post-baccalaureate students the opportunity to earn teaching certification in these three endorsement areas. To enter the post-baccalaureate certification program, a baccalaureate degree in music is required. Candidates must be fully admitted to the Teacher Certification Program and be admitted by the Department of Music after application and transcript review. Recommendation for certification requires completion of all courses listed in the CWU curricular requirements for the Bachelor of Music: Music Education specialization with a "C" grade or above. Consultation with the faculty music education specialist and department advisor is mandatory for students entering the postbaccalaureate program.

## Department Fees

All fees are billed to students' accounts.

- $\quad \$ 15$ fee for each MUS 154 (Class Instruction) course (all sections except B and H ).
- $\quad \$ 125$ fee for 1 credit and $\$ 250$ fee for 2 credits each quarter of enrollment in MUS 164, 264, or 364 (Individual applied instruction).
- $\quad \$ 250$ fee each quarter of enrollment in MUS 464 (Individual applied instruction).
- $\quad \$ 125$ fee for 2 credits and $\$ 250$ fee for 4 credits each quarter of enrollment in MUS 564 and 664 (Individual applied instruction).
- $\quad \$ 125$ fee each quarter of enrollment in X71 (Secondary applied instruction).
- $\quad \$ 40$ fee each quarter for students enrolled in Vocal Jazz I
- $\quad \$ 50$ fee for each scheduled student recital
- $\quad \$ 15$ fee for each MUS 252, 253, and 254 (Class Instrumental Methods) course
- $\quad \$ 5$ annual locker fee (Optional if you choose to get a locker)
- $\quad \$ 5$ fee for students enrolled in Percussion Ensemble
- $\quad \$ 25$ university tech fee covers use of electronic equipment used in all music courses. Part-time students enrolled in theory, class piano, composition, or electronic music courses will be assessed this fee.


## Applied Music (Individual Lessons)

Student advancement through performance levels (164-464) is determined by jury examination. This is done at the end of the quarter when a level change is attempted. Students studying at the 364 level must present a one-half recital as a graduation requirement. Students studying at the 464 level must present at least a full recital as a graduation requirement. See the Undergraduate Handbook for policies regarding applied music study. The handbook is available on the department website at www.cwu.edu/~music. Applied music requirements differ according to the degree.

## Ensemble Participation

Participation in performance ensembles is an essential part of the music major experience. Rehearsing and performing as part of a band, orchestra, or choir provides many benefits. It develops musical listening and performing skills, expands knowledge of repertoire, including contemporary and traditional works, provides the opportunity to learn the style characteristics of historical periods and elements of musical structures, and promotes cohesiveness in the musical community.

For future music directors and educators, the ensemble directors serve as models of how to develop such ensembles and how to utilize efficient and productive rehearsal techniques. To ensure that all music majors derive full benefit of this experience, participation in a large ensemble (defined below) appropriate to the major performing area is required of all music majors every quarter in residence as a full-time student, regardless of the number of credits required in each degree.

When circumstances justify not being in a large ensemble, a large ensemble participation waiver form, available in the music department office and signed by the applied instructor/advisor and ensemble director, must be submitted for approval by the department chair.

Only the following are designated as large ensembles: Wind Ensemble, MUS 266/466; Choir, MUS 267/467; Chamber Choir, MUS 268/468; Orchestra, MUS 277/477; Marching and Concert Band, MUS 287/487 (fall quarter only); Concert Band, MUS 288/488. Enrollment in either Women's Choir or Men's Choir can be substituted for enrollment in a choral large ensemble for a maximum of three quarters.

## Bachelor of Music - Composition Major

Bachelor of music in composition is intended for students whose primary interest is in composition and for those who intend to pursue graduate work in music theory or composition. Audition requirement: Submit 2 or 3 short contrasting compositions and demonstrate proficiency on a primary instrument. (Formal declaration of a major in composition cannot occur until the end of the first-year theory sequence 146 and 146A with the grade of at least a B- in all theory courses. Students must also, complete MUS 120, and have instructor.) Transfer students may bypass MUS 120 with permission based upon composition knowledge, submissions, and a successful audition on their primary instrument. It will normally take transfer students three years to complete the degree requirements.

## Bachelor of Music - Music Education with Specializations

All students majoring in music education will work with the department Advising Specialist and faculty music education specialist during the program. At the end of the sophomore year, students will meet individually with members of the music education faculty to review academic status and progress toward program completion. All music education majors must pass the required piano proficiency examination prior to endorsement for student teaching. Students in this major must apply for admission into the Teacher Certification Program housed in the College of Education and Professional Studies. This is typically done at the beginning of the student's second year. Transfer students should apply prior to or during their first quarter on campus. Students are required to complete the Professional Education Program requirements offered through the College of Education and Professional Studies.

## Music Courses

Performance activities are designated by the following code:
A. Piano
B. Voice
C. Strings
D. Woodwinds
E. Brass
G. Percussion

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/music or by contacting the department directly.

## Music Major, BA

## BA Music Core Requirements

Music Theory - Credits: 21

Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 35

Required Courses

Ensembles - Credits: 12

- Large Ensemble (minimum) Credits: (12) Only the following are designated as large ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir), MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (symphonic band).

Applied Music - Credits: 9-12

- Individual Instruction - (MUS 164, 264, and 364) Credits: (9-12) (NOTE: at least one credit of 364 must be completed on primary instrument)

Upper-division Music Theory - Credits: 3

- MUS 340 - Form and Analysis Credits: (3)

Conducting - Credits: 3

- MUS 341 - Conducting I Credits: (3)

Upper-division Music History - Credits: 3

Choose one:

- MUS 356 - Jazz Styles Credits: (3)
- MUS 382 - Survey of Chamber Music Credits: (3)
- MUS 384 - Survey of Choral Music Credits: (3)
- MUS 385 - Survey of Opera Credits: (3)
- MUS 386 - Survey of 20th-century Music Credits: (3)

Additional Courses - Credits: 2-5

- MUS 495 - Senior Project Credits: (2)
- Music Electives Credits: (0-3)

Total Credits: 70
College and Department Information

Music Department
College of Arts and Humanities

## Music Composition Major, BM

Bachelor of music in composition is intended for students whose primary interest is in composition and for those who intend to
pursue graduate work in music theory or composition. Audition requirement: Submit 2 or 3 short contrasting compositions and demonstrate proficiency on a primary instrument. (Formal declaration of a major in composition cannot occur until the end of the first-year theory sequence 146 and 146A with the grade of at least a B- in all theory courses, completion of MUS 120, and permission of instructor.) Transfer students may bypass MUS 120 with permission based upon composition knowledge, submissions, and sufficient audition on primary instrument. It will normally take transfer students three years to compete the degree requirements. UNIV 101 for music major - Gen Ed. requirement (not in degree program).

BM Composition Core Requirements

Music Theory - Credits: (21)
Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS 144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A) and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146-Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: (3)
A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Ensemble - Credits: (20)

Large Ensembles Credits (14-16)
Only the following are designated as large ensembles: MUS 267-467 (Choir), MUS 268-468 (Chamber Choir), MUS 266466 (Wind Ensemble), MUS 277-477 (Orchestra), MUS 287487 (Marching and Concert Band-fall quarter only) and MUS 288-488 (Symphonic Band).

Chamber Ensembles (4-6)
Applied Music - Credits: (13)

- Individual Instruction Credits: (12) - MUS 164, 264, and 364 (at least 2 credits of 364 are required)
- MUS 300-Recital Performance Credits: (1) (Must be concurrently enrolled in 364)

Upper-division Music Theory - Credits: (21)

- MUS 340 - Form and Analysis Credits: (3)
- MUS 343 - Counterpoint I Credits: (3)
- MUS 422 - Orchestration Credits: (3)
- MUS 423 - Advanced Orchestration Credits: (3)
- MUS 440 - Analytical Techniques II Credits: (3)
- MUS 485 - Choral Arranging Credits: (3)
- MUS 486 - Jazz Band Arranging Credits: (3)

Conducting - Credits: (6)

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: (11)

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 95

Required Courses
Music Composition - Credits: (24)

- MUS 120 - Composition 1 Credits: (3)
- MUS 220 - Composition 2 Credits: (2) (Must be taken for 6 credits)
- MUS 320 - Composition 3 Credits: (2) (Must be taken for 6 credits)
- MUS 420 - Composition 4 Credits: (3) (Must be taken for 9 credits) (Full Composition Recital Required to complete MUS 420)

Secondary Applied Area (Keyboard) - Credits: (4)

- MUS 171A - Secondary Applied Area Piano Credits: (1) (Must be taken for 3 credits) (If piano is major applied area then select another area of study)
- MUS 255 - Jazz Harmony and Keyboard Credits: (1)

Additional Courses - Credits: (5)

- Music Electives Credits: (2)
- MUS 347 - Electronic Music Composition Credits: (3)

Total Required Course Credits: 33

Total Credits: 128

College and Department Information

Music Department
College of Arts and Humanities

## Music Education Major BM, Broad Area Specialization

Choral Music, General Music, and Instrumental Music Endorsements

Students taking this major must apply and be fully admitted to the Teacher Certification Program through the College of Education and Professional Studies. In addition to the degree requirements of the Bachelor of Music: Music Education Major, students must also successfully complete the Professional Education Program housed in the School of Education.

All students majoring in music education will be reviewed and counseled by the Music Education Committee at the end of the sophomore year. The purpose of these reviews is to assist the student in developing all the skills necessary to be an effective music educator.

In order to receive departmental approval to student teach, the student must receive a satisfactory evaluation in all areas of music study. All music education majors must pass the required piano proficiency examination prior to application for student teaching.

This major satisfies the requirements for the Washington Residency Teacher Certificate with endorsements in Choral Music (K-12), General Music (K-12), and Instrumental Music (K-12) as established by the Office of the Superintendent of Public Instruction (OSPI). To qualify for student teaching, the following courses must be completed: MUS 323, MUS 325, MUS 329, MUS 341, and MUS 342. Students completing the program requirements (including passing the edTPA during student teaching and the WEST-E in each endorsement area) will be recommended to OSPI for certification.

Music Education, BM, Core Requirements

Music Theory - Credits: 21
Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144-Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146-Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Ensembles - Credits: 22

- Only the following are designated as large ensembles: MUS 267-467 (Choir), MUS 268-468 (Chamber Choir), MUS 266-466 (Wind Ensemble), MUS 277477 (Orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (Symphonic Band).

Applied Music - Credits: 11

- Individual Instruction - Credits (11) MUS 164, 264, and 364 (at least 2 credits of 364 are required)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)

Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359- Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 75

Required Courses Credits: 19

- Music Elective - Credits: (1)
- MUS 171 - Secondary Applied Area (Individual Instruction) Credits: (1)
- (Must be voice for non-voice primary applied area or instrumental for voice primary applied area)
- MUS 253 C - Class Instrumental Methods Strings I Credits: (1)
- MUS 253D - Class Instrumental Methods Woodwinds I Credits: (1)
- MUS 253E - Class Instrumental Methods Brass I Credits: (1)
- MUS 253G - Class Instrumental Methods Percussion I Credits: (1)
- MUS 254B - Class Vocal Methods Credits: (1)
- MUS 254C - Class Instrumental Methods Strings II Credits: (1)
- MUS 254D - Class Instrumental Methods Woodwinds II Credits: (1)
- MUS 254E - Class Instrumental Methods Brass II Credits: (1)
- MUS 323 - Choral Music Education Credits: (3)
- MUS 325 - Instrumental Music Education Credits: (3)
- MUS 329 - General Music Methods Credits: (3)


## Upper-Division Music Theory Credits: 3

Choose one course from the following:

- MUS 340 - Form and Analysis Credits: (3)
- MUS 422 - Orchestration Credits: (3)
- MUS 484 - Instrumental Arranging Credits: (3)
- MUS 485 - Choral Arranging Credits: (3)
- MUS 486 - Jazz Band Arranging Credits: (3)

Broad Area Total Credits: 97
Professional Education Program Credits: 50
Professional Education Program
Total Credits: 147

College and Department Information

Music Department
College of Arts and Humanities

## Music Education Major BM, Choral Music Specialization

Choral Music and General Music Endorsements

Students taking this major must apply and be fully admitted to the Teacher Certification Program through the College of Education and Professional Studies. In addition to the degree requirements of the Bachelor of Music: Music Education Major, students must also successfully complete the Professional Education Program housed in the School of Education.

All students majoring in music education will be reviewed and counseled by the Music Education Committee at the end of the sophomore year. The purpose of these reviews is to assist the student in developing all the skills necessary to be an effective music educator.

In order to receive departmental approval to student teach, the student must receive a satisfactory evaluation in all areas of music study. All music education majors must pass the required piano proficiency examination prior to application for student teaching.

This major satisfies the requirements for the Washington Residency Teacher Certificate with endorsements in Choral Music (K-12) and General Music (K-12) as established by the Office of the Superintendent of Public Instruction (OSPI). To qualify for student teaching, the following courses must be completed: MUS 323, MUS 329, MUS 341, and MUS 342. Students completing the program requirements (including passing the edTPA during student teaching and the WEST-E in each endorsement area) will be recommended to OSPI for certification.

Music Education, BM, Core Requirements
Music Theory - Credits: 21
Students must pass an online fundamental exam with $75 \%$ (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145-Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Ensembles - Credits: 22

- Only the following are designated as large ensembles: MUS 267-467 (Choir), MUS 268-468 (Chamber Choir), MUS 266-466 (Wind Ensemble), MUS 277-

477 (Orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (Symphonic Band).

## Applied Music - Credits: 11

- Individual Instruction - Credits (11) MUS 164, 264, and 364 (at least 2 credits of 364 are required)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)

Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 75

Required Courses Credits: 13

- MUS 240 - Diction in Singers I (Intro to IPA, Italian, Latin, English) Credits: (2)
- MUS 241 - Diction for Singers 2 (Advanced IPA and German) Credits: (2)
- OR MUS 242 - Diction for Singers 3 (Advanced IPA and French) Credits: (2)
- MUS 323 - Choral Music Education Credits: (3)
- MUS 329 - General Music Methods Credits: (3)
- MUS 425B - Pedagogy, Vocal Credits: (3)

Upper-Division Music Theory Credits: 3

Choose one course from the following:

- MUS 340 - Form and Analysis Credits: (3)
- MUS 422 - Orchestration Credits: (3)
- MUS 485 - Choral Arranging Credits: (3)

Choral Music Total Credits: 91

Professional Education Program Credits: 50
Professional Education Program

Total Credits: 141

College and Department Information

Music Department College of Arts and Humanities

# Music Education Major BM, Instrumental Music Specialization 

Instrumental Music and General Music Endorsements

Students taking this major must apply and be fully admitted to the Teacher Certification Program through the College of Education and Professional Studies. In addition to the degree requirements of the Bachelor of Music: Music Education Major, students must also successfully complete the Professional Education Program housed in the School of Education.

All students majoring in music education will be reviewed and counseled by the Music Education Committee at the end of the sophomore year. The purpose of these reviews is to assist the student in developing all the skills necessary to be an effective music educator.

In order to receive departmental approval to student teach, the student must receive a satisfactory evaluation in all areas of music study. All music education majors must pass the required piano proficiency examination prior to application for student teaching.

This major satisfies the requirements for the Washington Residency Teacher Certificate with endorsements in Instrumental Music (K-12) and General Music (K-12) as established by the Office of the Superintendent of Public Instruction (OSPI). To qualify for student teaching, the following courses must be completed: MUS 325, MUS 329, MUS 341, and MUS 342. Students completing the program requirements (including passing the edTPA during student teaching and the WEST-E in each endorsement area) will be recommended to OSPI for certification.

Music Education, BM, Core Requirements
Music Theory - Credits: 21

Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course (\$99 fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Ensembles - Credits: 22

- Only the following are designated as large ensembles: MUS 267-467 (Choir), MUS 268-468 (Chamber Choir), MUS 266-466 (Wind Ensemble), MUS 277477 (Orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (Symphonic Band).

Applied Music - Credits: 11

- Individual Instruction - Credits (11) MUS 164, 264, and 364 (at least 2 credits of 364 are required)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)


## Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)


## Total Core Credits: 75

Required Courses Credits: 14

- MUS 253C - Class Instrumental Methods Strings I Credits: (1)
- MUS 253D - Class Instrumental Methods Woodwinds I Credits: (1)
- MUS 253E - Class Instrumental Methods Brass I Credits: (1)
- MUS 253G - Class Instrumental Methods Percussion I Credits: (1)
- MUS 254B - Class Vocal Methods Credits: (1)
- MUS 254C - Class Instrumental Methods Strings II Credits: (1)
- MUS 254D - Class Instrumental Methods Woodwinds II Credits: (1)
- MUS 254E - Class Instrumental Methods Brass II Credits: (1)
- MUS 325 - Instrumental Music Education Credits: (3)
- MUS 329 - General Music Methods Credits: (3)

Upper-Division Music Theory Credits: 3

Choose one course from the following:

- MUS 340 - Form and Analysis Credits: (3)
- MUS 422 - Orchestration Credits: (3)
- MUS 484 - Instrumental Arranging Credits: (3)
- MUS 486 - Jazz Band Arranging Credits: (3)

Instrumental Music Total Credits: 92

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 142

College and Department Information

Music Department
College of Arts and Humanities

## Music Performance Major BM, Keyboard Specialization

Student advancement through performance levels (164-464) is determined by jury examination.

BM Performance Core Requirements

Music Theory - Credits: 21

Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass (75\%) an online fundamental course (\$99 fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144-Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146-Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Applied Music - Credits: 29

- Individual Instruction - (MUS 164, 264, and 364) Credits: (18)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)
- MUS 400 - Recital Performance Credits: (1) (Must be concurrently enrolled in 464)
- MUS 464 - Major Applied Area (Individual Instruction) Credits: (3) (Must be taken for 9 credits)

Upper-division Music Theory - Credits: 3

- MUS 340 - Form and Analysis Credits: (3)

Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 73

Required Courses

Ensembles - Credits: 21

- Large Ensembles Credits: (6-12) Only the following are designated as large ensembles: MUS 266-466 (wind ensemble), MUS 268-468 (chamber choir), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (symphonic band).
(NOTE: All ensemble courses have 200-level and 400 -level numbers. The 200 -level numbers are freshmen and sophomores, the 400-level numbers are used by juniors and seniors.)
- Chamber Ensembles Credits: (9-15)

Upper-division Music Theory - Credits: 6

- MUS 343-Counterpoint I Credits: (3)
- MUS 422 - Orchestration Credits: (3)

Additional Courses - Credits: 21

- Music Electives - Credits: (7)
- MUS 292 - Accompanying Practicum Credits: (1-3) (Must be taken for 4 credits)
- MUS 425A - Pedagogy (Studio Piano) Credits: (3)
- MUS 426A - Literature (Studio Piano) Credits: (3)
- MUS 492 - Accompanying Practicum Credits: (1-3) (Must be taken for 4 credits)

Total Credits: 118

College and Department Information

Music Department College of Arts and Humanities

## Music Performance Major BM, Percussion/Wind/String Specialization

Student advancement through performance levels (164-464) is determined by jury examination.

BM Performance Core Requirements
Music Theory - Credits: 21

Students must pass an online fundamental exam with $75 \%$ (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145-Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Applied Music - Credits: 29

- Individual Instruction - (MUS 164, 264, and 364) Credits: (18)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)
- MUS 400 - Recital Performance Credits: (1) (Must be concurrently enrolled in 464)
- MUS 464 - Major Applied Area (Individual Instruction) Credits: (3) (Must be taken for 9 credits)

Upper-division Music Theory - Credits: 3

- MUS 340 - Form and Analysis Credits: (3)

Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)


## Total Core Credits: 73

## Required Courses

Upper-division Music Theory - Credits: 3

- MUS 422 - Orchestration Credits: (3)

Additional Courses Credits: 12

- Music Electives - Credits: (6)
- MUS 425 - Pedagogy (Studio) Credits: (3) C, D, E, or G, Pedagogy (Studio)
- (G) In appropriate performance area: $\mathrm{C}=$ string, $\mathrm{D}=$ woodwinds, $\mathrm{E}=$ brass, $\mathrm{G}=$ percussion.
- MUS 426 - Literature (Studio) Credits: (3) C, D, E, or G, Literature (Studio)
- In appropriate performance area: $\mathrm{C}=$ string, $\mathrm{D}=$ woodwinds, $\mathrm{E}=$ brass, $\mathrm{G}=$ percussion.
- Large Ensemble Credits: (20-24) Only the following are designated as large ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir), MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (symphonic band).
- Chamber Ensemble Credits: (6-10)

Total Credits: 118

College and Department Information

Music Department
College of Arts and Humanities

## Music Performance Major BM, Vocal Specialization

Student advancement through performance levels (164-464) is determined by jury examination. Prior to completion of the bachelor's degree, vocal performance majors must:

- Demonstrate the ability to translate musical texts in French and German
- Demonstrate competency in French or German equal to the successful completion of French 153 or German 153.

BM Performance Core Requirements
Music Theory - Credits: 21
Students must pass an online fundamental exam with 75\% (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or better is required in both the written and aural components to continue in the theory sequence.

- MUS 144 - Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145-Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)
- MUS 244 - Theory 4 Credits: (3)
- MUS 245 - Theory 5 Credits: (3)
- MUS 246 - Theory 6 Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Applied Music - Credits: 29

- Individual Instruction - (MUS 164, 264, and 364) Credits: (18)
- MUS 300 - Recital Performance Credits: (1) (Must be concurrently enrolled in 364)
- MUS 400 - Recital Performance Credits: (1) (Must be concurrently enrolled in 464)
- MUS 464 - Major Applied Area (Individual Instruction) Credits: (3) (Must be taken for 9 credits)

Upper-division Music Theory - Credits: 3

- MUS 340 - Form and Analysis Credits: (3)

Conducting - Credits: 6

- MUS 341 - Conducting I Credits: (3)
- MUS 342 - Conducting II Credits: (3)

Music History - Credits: 11

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- MUS 372 - Music History 1 Credits: (3)
- MUS 373 - Music History 2 Credits: (3)
- MUS 374 - Music History 3 Credits: (3)

Total Core Credits: 73

Additional Required Courses
Ensemble - Credits: 30

- Large Ensemble Credits: (20-24) Only the following are designated as large ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir), MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (symphonic band).
- Chamber Ensemble Credits: (6-10)

Additional Courses - Credits: 13-17

- Music electives - Credits: (1-2)
- MUS 240 - Diction in Singers I (Intro to IPA, Italian, Latin, English) Credits: (2)
- MUS 241 - Diction for Singers 2 (Advanced IPA and German) Credits: (2)
- MUS 242 - Diction for Singers 3 (Advanced IPA and French) Credits: (2)
- MUS 425B - Pedagogy, Vocal Credits: (3)
- MUS 426 - Literature (Studio) Credits: (3)
- MUS 462 - Opera Production Credits: (1-3)

Total Credits: 116-120

College and Department Information
Music Department
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## Music Minor

Required Courses
Ensembles - Credits: 6

- Large ensemble or chamber ensemble - Credits: (6)

Applied Music - Credits: 3

- Individual Instruction - (MUS 164 or MUS 264) Credits: (3)

Class Piano - Credits: 3

A waiver of this requirement can be obtained by demonstrating sufficient keyboard skills to designated piano faculty members.

- MUS 152A - Class Piano I Credits: (1)
- MUS 153A - Class Piano II Credits: (1)
- MUS 154A - Class Piano III Credits: (1)

Music Theory - Credits: 12
Students must pass an online fundamental exam with $75 \%$ (\$10 fee) or take and pass ( $75 \%$ ) an online fundamental course ( $\$ 99$ fee) to enroll in MUS144. Students must take a placement exam to waive any of the following courses. Concurrent enrollment of the following is required: (MUS 144, 144A, 152A), (MUS 145, 145A, 153A), and (MUS 146, 146A, 154A). A grade of C or higher is required in both the written and aural components to continue in the theory sequence.

- MUS 144-Theory 1 Credits: (3)
- MUS 144A - Aural Skills 1 Credits: (1)
- MUS 145 - Theory 2 Credits: (3)
- MUS 145A - Aural Skills 2 Credits: (1)
- MUS 146 - Theory 3 Credits: (3)
- MUS 146A - Aural Skills 3 Credits: (1)

Additional Required Courses - Credits: 2-3

- MUS 359 - Survey of Music in Cross-cultural Perspectives Credits: (2)
- OR MUS 379-Philosophy of Music (On reserve as of 9/16/15) Credits: (3)

Music Electives - Credits: 6

College and Department Information

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## Non-profit Organization Management Minor (MUS)

## (See catalog under communication department for details)

The minor in non-profit organization management is an interdisciplinary minor designed to provide an understanding of the organization, financing and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

Total Credits: 30

College and Department Information

Music Department
College of Arts and Humanities

## Jazz Studies Certificate

The jazz studies certificate is designed to provide a secondary focus to the existing music degrees with emphasis in jazz performance, jazz improvisation, jazz harmony, jazz composition and arranging, and jazz history or jazz pedagogy. Students in the certificate program will usually be wither instrumentalists (drum set, bass, vibes, piano, guitar, saxophone, trombone, and trumpet) or vocalists and will participate in both large and small jazz ensembles, and other coursework as outlined below.

Required Courses

- MUS 210 - Vocal Jazz Choir Credits: (1) (These two courses must be taken for a total of 6 credits)
- AND MUS 410 - Vocal Jazz Choir Credits: (1)
- OR
- MUS 232 - Big Band Credits: (1) (These two courses must be taken for a total of 6 credits)
- AND MUS 432 - Big Band Credits: (1)
$\bullet$
- MUS 218 - Jazz Combo Credits: (1) (These two courses must be taken for a total of 6 credits)
- AND MUS 418 - Jazz Combo Credits: (1)
$\bullet$
- MUS 255 - Jazz Harmony and Keyboard Credits: (1)
- MUS 353 - Jazz Improvisation I Credits: (1)
- MUS 354 - Jazz Improvisation II Credits: (1)
- MUS 355 - Jazz Improvisation III Credits: (1)

Choose one from the following - Credits: 3

- MUS 357 - Jazz Composition and Arranging Credits: (3)
- MUS 485 - Choral Arranging Credits: (3)
- MUS 486 - Jazz Band Arranging Credits: (3)

Choose one from the following - Credits: 3

- MUS 356 - Jazz Styles Credits: (3)
- MUS 424 - Jazz Pedagogy Credits: (3)

Total Credits: 22

College and Department Information

Music Department
College of Arts and Humanities

## Philosophy and Religious Studies Department

College of Arts and Humanities<br>Ellensburg

Language and Literature Bldg., room 337
Mail Stop 7555
509-963-1818
Fax 509-963-1822
www.cwu.edu/philosophy
See website for how these programs may be used for educational and career purposes.

Faculty and Staff
Chair
Matthew Altman, PhD

## Professors

Matthew Altman, PhD, Kant, ethics and applied ethics, 19th century philosophy, social and political philosophy, philosophy of law, philosophy of art
Cynthia Coe, PhD, 20th century continental philosophy, feminist philosophy, 19th century philosophy, critical race theory
Jeffrey Dippmann, PhD, world religions, Chinese Buddhism, Daoism

## Associate Professor

Gary Bartlett, PhD, philosophy of mind, philosophy of science, cognitive science, epistemology

## Assistant Professor

Michael Goerger, PhD, ethical theory, ancient Greco-Roman philosophy, applied ethics, social and political philosophy Lily Vuong, PhD, early Judaism, early Christianity, New Testament apocrypha, feminist theory

## Senior Lecturer

Karen Turcotte, MA, philosophy and world religions, women/gender and religion, philosophy of humor

## Lecturers

Nathan Carpenter, PhD, ancient Greek philosophy, ethics Michael Fletcher, PhD, history of modern philosophy (Kant), philosophy of mind, logic and critical thinking, history of Western philosophy
Michael Hundley, PhD, world religions, ancient religious, Hebrew Bible

## Staff

Lynn Thompson, secretary senior

## Department Information

The original meaning of the word philosophy is "the love of wisdom." Philosophy therefore represents an ongoing process of critical and speculative inquiry into questions representing people's deepest concerns, such as the meaning of existence, the nature of reality, and the grounds of human conduct. The religious studies is a path of inquiry into the nature of religion, its pervasive role in human life, and its contribution to understanding human existence. The program is comparative in nature but complemented by a philosophical component focused on religion and unique electives designed to accommodate student interests.

Students may choose either a 50 - or 60 -credit major. In order to graduate, a student who completes the 50 -credit major must also have a minor or second major in another discipline. A student who completes the 60 -credit major is not required to have a minor or second major.

## Maximum Credit Overlap

No more than 10 credits of coursework counting toward any of the department's major or minor programs may also be counted toward one of the department's other programs.

Departmental Honors in Philosophy and Religious Studies The honors program in Philosophy and Religious Studies recognizes the exceptional scholarship of qualified students in either the Philosophy or the Religious Studies major. To qualify, students must have completed at least 25 credits in their major or specialization and have a minimum GPA of 3.0 overall and 3.5 in their major coursework.

In addition to their normal coursework, students seeking departmental honors must take one additional upper division course in their program, complete a superior thesis (PHIL 497 or RELS 497: Honors Thesis) to be evaluated by a second reader from the departmental faculty, and make an oral presentation. Students graduating with honors will have that accomplishment recorded on their transcripts.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/philosophy or by contacting the department directly.

# Philosophy Major, BA (50 or 60 credits) 

## Philosophy Major, BA (50 or 60 credits)

Students may choose either a 50 -credit major or a 60 -credit major. In order to graduate, a student who completes the $50-$ credit major must also have a minor or second major in another discipline. A student who completes the 60 -credit major is not required to have a minor or second major.

## Departmental Honors in Philosophy

The honors program in Philosophy recognizes the exceptional scholarship of qualified students in the Philosophy major. To qualify, students must have completed at least 25 credits in their major and have a minimum GPA of 3.0 overall and 3.5 in their major coursework.

In addition to their normal coursework, students seeking departmental honors must take one additional upper division course in their program, complete a superior thesis (PHIL 497: Honors Thesis) to be evaluated by a second reader from the departmental faculty, and make an oral presentation. Students graduating with honors will have that accomplishment recorded on their transcripts.

## Required Courses Credits: 30

## Select either:

- PHIL 150 - Critical Thinking Credits: (5)
- OR PHIL 307 - Introduction to Formal Logic Credits: (5)
$\bullet$
- PHIL 352 - Greek and Roman Philosophy Credits: (5)
- PHIL 353 - Early Modern Philosophy Credits: (5)
- PHIL 354 - Kant and Nineteenth-Century Philosophy Credits: (5)
- PHIL 488 - Junior Seminar Credits: (5)
- PHIL 494 - Undergraduate Thesis Preparation Credits: (2)


## Select either:

- PHIL 495 - Undergraduate Thesis Credits: (3)
- OR PHIL 497 - Honors Thesis Credits: (3)

Select one course from the following value-based courses Credits: 5

- PHIL 302 - Ethical Theory Credits: (5)
- PHIL 304 - Business Ethics Credits: (5)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 308 - Medical Ethics Credits: (5)
- PHIL 347 - Philosophy of Law Credits: (5)
- PHIL 348 - Social and Political Philosophy Credits: (5)
- PHIL 403 - Philosophy of Art Credits: (5)
- PHIL 465 - Advanced Ethics Credits: (5)

Select one course from the following contemporary analytic and continental philosophy courses - Credits: 5

- PHIL 358 - Existentialism Credits: (5)
- PHIL 359 - Contemporary European Philosophy Credits: (5)
- PHIL 361 - Theory of Knowledge Credits: (5)
- PHIL 364 - Philosophy of Mind Credits: (5)
- PHIL 380 - Philosophy of Science Credits: (5)

Select one course from the following diversity courses - Credits: 5

- PHIL 325 - Women and Philosophy Credits: (5)
- PHIL 345 - Chinese Philosophy Credits: (5)
- PHIL 357 - Philosophy of Race Credits: (5)
- RELS 403 - Buddhist Thought and Practice Credits: (5)

Department-approved Electives Credits: 5-15

Any PHIL courses (at most 5 credits at the 100 - or 200level).

Total Credits: 50 or 60

College and Department Information
Philosophy and Religious Studies Department
College of Arts and Humanities

## Religious Studies Major, BA (50 or 60 credits)

The Religious Studies major is a path of inquiry into the nature of religion, its pervasive role in human life, and its contribution to understanding human existence. The program is comparative in nature but complemented by a philosophical component focused on religion and unique electives designed to accommodate student interests. Students may choose either a $50-$ or 60 -credit major. In order to graduate, a student who completes the 50 -credit major must also have a minor or second major in another discipline. A student who completes the 60credit major is not required to have a minor or second major.

Departmental Honors in Philosophy and Religious Studies The honors program in Philosophy and Religious Studies recognizes the exceptional scholarship of qualified students in either the Philosophy or Religious Studies major. To qualify, students must have completed at least 25 credits in their major and have a minimum GPA of 3.0 overall and 3.5 in their major coursework.

In addition to their normal coursework, students seeking departmental honors must take one additional upper division course in their program, complete a superior thesis (RELS 497:

Honors Thesis) to be evaluated by a second reader from the departmental faculty, and make an oral presentation. Students graduating with honors will have that accomplishment recorded on their transcripts.

Required Courses Credits: 35

- RELS 101 - World Religions Credits: (5)
- RELS 102 - Food, Sex, and the Other: Everyday Religion and Morality Credits: (5)
- OR RELS 103 - World Mythologies Credits: (5)
- PHIL 352 - Greek and Roman Philosophy Credits: (5)
- OR RELS 403 - Buddhist Thought and Practice Credits: (5)
- RELS 376 - Contemporary Religious Thought Credits: (5)
- RELS 494 - Undergraduate Thesis Preparation Credits: (2)
- RELS 495 - Undergraduate Thesis Credits: (3)
- OR RELS 497 - Honors Thesis Credits: (3)


## Select One - Eastern Tradition

- PHIL 345 - Chinese Philosophy Credits: (5)
- RELS 351 - Religions of China and Japan Credits: (5)
- RELS 352 - Religions of India Credits: (5)
- RELS 401 - The Daoist Tradition Credits: (5)


## Select One - Western Tradition

- RELS 353 - Judaism Credits: (5)
- RELS 354 - Christianity Credits: (5)
- RELS 355 - Islam Credits: (5)
- RELS 413 - Varieties of Early Christianity Credits: (5)

Department-approved Electives Credits: 15-25

Any upper-division RELS courses. Select upper-division PHIL courses or upper-division courses related to religion in other disciplines by approval. Small majors ( 50 credits) require 15 elective credits; large majors (60) require 25 elective credits.

Total Credits: 50 or 60

College and Department Information

Philosophy and Religious Studies Department College of Arts and Humanities

## Ethics Minor

A minor in ethics enables students to develop a strong sense of moral responsibility and critical skills for moral reflection. It consists of required courses in global ethics or current ethical
issues, coursework in philosophical ethics, as well as interdisciplinary electives. It also includes a capstone project to help students develop their ethical ability and awareness through service learning, a research or creative project. Such a minor can be combined with, and serve as enrichment to, any major program. As a result of completing the minor, students will be able to:

Identify and implement major moral theories from diverse traditions
Demonstrate an understanding of the cultural and historical embeddedness of ethical theories
Evaluate moral issues from a plurality of perspectives
Develop a capacity for critical moral reasoning
Analyze and evaluate the effectiveness of given moral theories in dealing with contemporary ethical problems
Learn to account for one's conduct within a larger community
Develop a sensitivity to the central moral issues in a given discipline and the capacity to act in a morally responsible manner

Required Courses Credits: (7)

- PHIL 104 - Moral Controversies Credits: (5)
- PHIL 485 - Capstone Project Credits: (2)

Courses in Philosophical Ethics Credits: (10)

Choose two courses from the following:

- PHIL 302 - Ethical Theory Credits: (5)
- PHIL 304 - Business Ethics Credits: (5)
- PHIL 306 - Environmental Ethics Credits: (5)
- PHIL 308 - Medical Ethics Credits: (5)
- PHIL 465 - Advanced Ethics Credits: (5)

Electives Credits: (8-10)
No more than 5 credits can be taken from one discipline.

- COM 202 - The First Amendment: Rights and Responsibilities Credits: (5)
- COM 333 - Communication Ethics Credits: (4) (for COM majors only)
- IT 301 - Information Technology Security, Privacy, and Ethics Credits: (3)
- LAJ 401 - Ethics, Diversity, and Conflict in Criminal Justice Credits: (4) (For LAJ majors only)
- MSL 302 - Leadership and Ethics Credits: (3) (For military science majors only)
- PHIL 325 - Women and Philosophy Credits: (5)
- PHIL 345 - Chinese Philosophy Credits: (5)
- PHIL 357 - Philosophy of Race Credits: (5)
- PHIL 309 - Ethics through Film (Put on reserve 9/16/17) Credits: (5)
- POSC 452 - The Constitution and Human Rights Credits: (5)
- POSC 475 - International Human Rights Credits: (5)
- RELS 353 - Judaism Credits: (5)
- RELS 354-Christianity Credits: (5)
- RELS 355 - Islam Credits: (5)
- RELS 376 - Contemporary Religious Thought Credits: (5)
- RELS 401 - The Daoist Tradition Credits: (5)
- RELS 403 - Buddhist Thought and Practice Credits: (5)
- SOC 320 - Death and Dying Credits: (5)
- SOC 354 - Minority Experience Credits: (5)

OR other ethics-related courses as approved by minor advisor.
Special topics courses, cooperative education credit, and independent study courses may also count towards elective credit.

Total Credits: 25-27

College and Department Information

Philosophy and Religious Studies Department College of Arts and Humanities

## Philosophy Minor

## Required Courses

- Any 100- or 200-level PHIL Course Credits: (5)
- Select either:
- PHIL 150 - Critical Thinking Credits: (5)
- OR PHIL 307 - Introduction to Formal Logic Credits: (5)

Philosophy electives Credits: 10-18
Select from PHIL courses; at least 10 credits at 300 level or above.

Total Credits: 20-28

College and Department Information

Philosophy and Religious Studies Department
College of Arts and Humanities

## Religious Studies Minor

## Required Courses

- RELS 101 - World Religions Credits: (5)

Select from the following - Credits: 5

- PHIL 305 - Philosophy of Religion Credits: (5)
- RELS 102 - Food, Sex, and the Other: Everyday Religion and Morality Credits: (5)

Select from the following - Credits: 5

- RELS 351 - Religions of China and Japan Credits: (5)
- RELS 352 - Religions of India Credits: (5)
- RELS 353 - Judaism Credits: (5)
- RELS 354-Christianity Credits: (5)
- RELS 355 - Islam Credits: (5)

Select Either - Credits: 5

- RELS Upper Division Electives OR
- PHIL courses cannot be used here if used to fulfill requirements for the major or minor in Philosophy.
- PHIL 305 - Philosophy of Religion Credits: (5)
- PHIL 378 - Philosophy of Love Credits: (5)

Total Credits: 20

College and Department Information

Philosophy and Religious Studies Department
College of Arts and Humanities

## Physical Education, School Health, and Movement Studies Department

College of Education and Professional Studies<br>School of Education<br>Ellensburg<br>Dorothy Purser Hall, room 101<br>Mail Stop 7572<br>509-963-1911<br>Fax: 509-963-1848<br>www.cwu.edu/peshms<br>See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

## Chair

Heidi Henschel Pellett, EdD

## Professors

Heidi Henschel Pellett, EdD, physical education, pedagogy
Kirk Mathias, EdD, physical education, pedagogy

## Associate Professors

Mark Perez, PhD, school health, pedagogy
P. Stefan Ward, PhD, physical education, pedagogy

Therese Young, MA, dance

## Assistant Professors

Judy Beard, PhD, school health, physical education Brian McGladrey, PhD, CSCS, athletic administration
Tanjian Liang, PhD, physical education, pedagogy
Rory Weishaar, EdD, athletic administration

## Senior Lecturer

Kristine Espinoza, MS, health education, pedagogy

## Lecturer

Gabrielle McNeillie, MFA, dance

## Staff

Debra D'Acquisto, activity program coordinator
Marni Fox, program support supervisor I
Rafael Gomez-Vilchis, sport equipment manager
Debbie Nethery, pool manager

## Department Information

The mission of the Department of Physical Education, School Health, and Movement Studies is to promote health and active lifestyles. The vision of the Department is to create highly recognized and respected academic programs in which students gain the knowledge, skills, and dispositions to be successful in their profession. This mission and vision and the following core values help to guide program decisions within the department:

- Professional environment based on ethical behavior, respect, and integrity
- Quality of life through health promotion, healthy communities, and active lifestyles
- Student focused learning environment based on respect, relevance, and rigor
- Social justice and diversity

Proudly, graduates of each major program in the department are highly qualified to enter careers in physical education and school health or public health.

## Departmental Programs

Physical Education and School Health (PESH) Major
Physical Education - Coaching Minor
Physical Education - Dance Minor
Physical Education - Dance: Teaching Minor
Physical Education - Activity Program

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/peshms or by contacting the department directly.

## Dance Major, BA

Students may apply to the major during fall, winter, or spring term. Students planning to enter this major will experience a comprehensive dance education with opportunities for cultural enrichment, choreography, performance and teaching in a variety of genres. Students can pair this major with a variety of
minors to enhance their marketability. The following additional requirements also apply.

## Admission Requirements

- A number of classes in the major are offered on a rotating basis every other year. Consequently, students must work with their advisor in planning their schedule of course work in order to progress to completion of the major in 4 years.
- All students applying to the major must successfully complete 6 credits in any of the required core courses, including one technique class, before admission to the Dance major.
- All students upon admittance to the program will attend a technique placement class to determine their class level.

For more information visit our Department web site: www.cwu.edu/dance/

## Graduation Requirements

Completion of Major requirements with a GPA 3.0 or higher.
All students completing this program are required to demonstrate knowledge, skills, and professional dispositions through a Capstone project before completion of the major.

Students must receive a letter grade of C or higher for all courses in the major and students who receive less than a C grade in any class that is a prerequisite for others will not be permitted to continue in the major.

## Program Requirements

All Dance major candidates must have a minimum of 3 credits in Dance Performance in order to complete the major.

All Dance major candidates must attend one professional conference in their field of study while pursuing the major.

Required Courses Credits: 56

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 103 - Modern Technique I Credits: (2)
- DNCE 104 - Ballet Technique I Credits: (2)
- DNCE 105 - Ballet Technique I Credits: (2)
- DNCE 106 - Ballet Technique I Credits: (2)
- DNCE 112 - Dance Performance Credits: (1) (Must be taken for 3 credits.)
- DNCE 161 - Cultural History of Dance Credits: (4)
- DNCE 201 - Modern Technique II Credits: (2)
- DNCE 202 - Modern Technique II Credits: (2)
- DNCE 203 - Modern Technique II Credits: (2)
- DNCE 204 - Ballet Technique II Credits: (2)
- DNCE 205 - Ballet Technique II Credits: (2)
- DNCE 206 - Ballet Technique II Credits: (2)
- DNCE 300 - Dance Composition Credits: (3)
- DNCE 311 - Music for Dance - Rhythms and Resources Credits: (3)
- DNCE 315-Teaching Methods: Modern and Ballet Dance Credits: (4)
- DNCE 355 - Principles of Functional Alignment for Dance Credits: (3)
- DNCE 360 - Dance Injury Prevention Credits: (3)
- DNCE 401 - Choreography Credits: (4)
- DNCE 402 - Dance Production Credits: (4)
- DNCE 420 - Capstone Project Credits: (1)

Department-Approved Electives Credits: 8

- DNCE 121 - Tap Dance I Credits: (1)
- DNCE 122 - Tap Dance II Credits: (1)
- DNCE 130 - American Style Ballroom Dance I Credits: (1)
- DNCE 131 - American Style Ballroom Dance II Credits: (1)
- DNCE 132 - American Style Ballroom Dance III Credits: (1)
- DNCE 133 - International Standard Ballroom Dance I Credits: (1)
- DNCE 134 - International Standard Ballroom Dance II Credits: (1)
- DNCE 135 - International Standard Ballroom Dance III Credits: (1)
- DNCE 136 - International Latin Ballroom Dance I Credits: (1)
- DNCE 137 - International Latin Ballroom Dance II Credits: (1)
- DNCE 138 - International Latin Ballroom Dance III Credits: (1)
- DNCE 141 - Jazz Dance I Credits: (1)
- DNCE 142 - Jazz Dance II Credits: (1)
- DNCE 143 - Jazz Dance III Credits: (1)
- DNCE 150 - Mat Pilates Credits: (1)
- DNCE 155 - Pointe and Variations Credits: (1)
- DNCE 156 - Partnering Credits: (1)
- DNCE 304 - Ballet Technique III Credits: (2)
- DNCE 305 - Ballet Technique III Credits: (2)
- DNCE 306 - Ballet Technique III Credits: (2)
- DNCE 309 - Teaching Methods: Recreational Dance Credits: (3)
- DNCE 314 - Dance for Children Credits: (3)
- DNCE 495 - Practicum Credits: (1-4)

Total Credits: 64

College and Department Information
Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

## Physical Education and School Health Major, BS

## Program Director

P. Stefan Ward, PhD, physical education, pedagogy

## Program Advisors

Judy Beard, PhD, school health, pedagogy
Heidi Henschel Pellett, EdD, physical education, pedagogy
Tanjian Liang, PhD, physical education, pedagogy
Kirk Mathias, EdD, physical education, pedagogy
Mark Perez, EdD, health education, pedagogy
P. Stefan Ward, PhD, physical education, pedagogy

This major satisfies the Washington State endorsement for K-12 health/fitness.

## Admission Description and Requirements

This major is designed for students interested in teaching physical education and school health education for grades K-12. Students will receive experiences in physical education and health education content, pedagogy, movement applications, and practicums in the major. Students taking this major for teaching are required to apply to the Teacher Certification Program and complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum. The following additional requirements also apply:

- Classes in this major are organized over six consecutive quarters and must be taken in sequence.
- Students must receive a letter grade of " C " or higher for all courses in the major and students who receive less than a " C " grade in any class that is a prerequisite for others will not be permitted to continue in the major.
- Students must pass the WEST E exam in health and fitness to receive a K-12 WA endorsement.
- All students completing this program are required to demonstrate knowledge, skill, and disposition proficiencies through a program portfolio prior to student teaching.
- Students may also graduate with a non-teaching BS degree in physical education and school health.
- Professional dress requirements apply to many classes in this major. Students must comply with these requirements to participate in the program.

See the physical education, school, and public health website for more information: www.cwu.edu/~pesph.

For the major application procedure, contact the physical education and school health program director.

Required Courses

- EMS 245-Advanced First Aid and Emergency Response Credits: (3)
- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- HED 210 - Drugs and Health Credits: (3)
- HED 387 - Principles of Fitness and Stress Management Credits: (3)
- HED 422 - Methods for Health Promotion Credits: (4)
- PESH 431 - Principles of Sexual Health Education Credits: (3)
- NUTR 101 - Introduction to Human Nutrition Credits: (5)
- DNCE 309 - Teaching Methods: Recreational Dance Credits: (3)
- PESH 280 - Foundations of Physical Education and School Health Credits: (4)
- PESH 300 - Comprehensive School Health Education Credits: (3)
- PESH 326 - Human Diseases Credits: (3)
- PESH 336 - Practicum 1 Credits: (2)
- PESH 341 - Characteristics of Effective Physical Education Teaching Credits: (3)
- PESH 342 - Developmental Movement Credits: (4)
- PESH 343 - Pedagogical Application of Teaching Styles and Systematic Reflection Credits: (3)
- PESH 344 - Applications of Technology in Teaching Fitness and Physical Activity Credits: (3)
- PESH 345 - School Health Curriculum Credits: (3)
- PESH 348 - Tactics and Skills of Striking and Net/Wall Games Credits: (3)
- PESH 350 - Utilizing Tactics and Skills for Invasion Games Credits: (3)
- PESH 356 - Teaching Lifelong Physical Activity Pursuits Credits: (3)
- PESH 358 - Applications of Resistance, Core, and Cardiovascular Training Credits: (3)
- PESH 437 - Practicum 2 Credits: (3)
- PESH 438 - Practicum 3 Credits: (3)
- PESH 439 - Practicum 4 Credits: (1)
- PESH 445 - Curriculum Development and Assessment in Physical Education Credits: (3)
- PESH 447 - Inclusive Strategies and Activities for Diverse Learners Credits: (3)
- PESH 458 - Diagnosis and Analysis of Human Movement Credits: (3)

Total Credits: 85
Professional Education Program Credits: 50

Professional Education Program

Total Credits: 135

College and Department Information
Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies
Sport Management BS, Recreation Management Specialization

The Recreation Management specialization prepares students for entry-level supervisory and managerial positions with municipal parks and recreation departments, non-profit agencies such as YMCAs and Boys and Girls Clubs, armed forces recreation, university recreation and intramural sports, camping and outdoor recreation. In addition, entrepreneurial skills are developed for those interested in starting their own business. The Recreation Specialization prepares students for positions in one of the top industries in Washington State and the Nation. Career opportunities are numerous.

Students must maintain a 2.75 (on a scale of 4.0 ) as a minimum cumulative grade point average (GPA) in the Recreation Management coursework and achieve a minimum grade of " C " in each of the courses.

Sport Management, BS

## Program Director

Brian McGladrey, Ph.D., CSCS

## Program Description

The major in Sport Management is designed for students interested in pursuing a career in the sports industry. The sports industry in the U.S. now generates revenues that exceed $\$ 200$ billion annually. Accordingly, the number and type of career opportunities associated with sport continues to grow. Classroom learning, combined with experiential learning gained through practicums and internships, will allow students who earn a Bachelor of Science in Sport Management to position themselves for success in entry-level positions in a variety of sport-related occupations.

Examples of potential careers in sport management include:

- Collegiate Coaching = coaching, recruiting, summer camps
- Interscholastic Coaching = coaching
- Youth Coaching/Leadership = coaching, league director
- Professional Sports Teams = ticket sales, marketing,
- Collegiate Athletics = athletics director, public relations, compliance
- City/Community Recreation $=$ administration, league director, promotions
- Athletic Facilities = management, membership marketing/sales
- Collegiate Recreation = management, student services, facilities


## Sport Management Emphasis Areas

Students choosing to major in Sport Management will complete a "core" of coursework, and choose to specialize in one of the following emphasis areas:

- Sport Coaching
- Sport Business
- Physical Activity Programming


## Admission Requirements

Students must complete SPM 101-Contemporary Sport
Management before applying to the program. For the major application procedure, contact the Sport Management Program Director.

## Graduation Requirements

Students must maintain a 2.75 (on a scale of 4.0) as a minimum cumulative grade point average (GPA) in the major's coursework.

## Program Requirements

Students must choose one from three Sport Management specializations: (1) Sport Coaching; (2) Sport Business; or (3) Physical Activity Programming. A minimum grade of "C" is required in each of the major's courses.

Required Core Courses

- ACCT 301 - Accounting Skills for Non-Business Majors Credits: (5)
- PE 448 - Coaching and Competitive Ethics Credits: (3)
- PE 453 - Psychological and Sociological Foundations of Coaching Credits: (3)
- SPM 101-Contemporary Sport Management Credits: (3)
- SPM 315 - Legal Liability and Risk Management in Sport Credits: (3)
- SPM 355 - Public Relations and Promotions in Sport Credits: (3)
- SPM 365 - Sports Facilities and Events Management Credits: (3)
- SPM 465 - Global Perspectives in Sport Credits: (3)
- SPM 490 - Sport Management Internship Credits: (112) (Must be taken for 6 credits.)
- SPM 492 - Practicum in Sport Management Credits: (3)

Total Core Credits: 35
Recreation Management Specialization
Required Courses

- FCS 220 - Leadership in Human Development Credits: (4)
- RTE 222 - Recreation Programming and Activities Credits: (3)
- RTE 300 - Challenge Course Leadership Credits: (4)
- RTE 333 - Outdoor Adventures in Public Lands Credits: (4)
- RTE 382 - Community Recreation Credits: (3)
- RTE 430 - Grants, Sponsorship, and Fundraising for RTE Credits: (5)
- RTE 487 - Outdoor Recreation Issues Credits: (3)
- RTE 488 - Recreation Management Credits: (4)
- RTE 492 - Senior Practicum Credits: (1-10)

Choose one from the following:

- RTE 340 - Introduction to Adventure Programming Credits: (3)
- RTE 431 - Recreation Administration of Retreats and Camps Credits: (3)

Total Specialization Credits: 35

Total Credits: 70

## Sport Management BS, Sport Business Specialization

The specialization in Sport Business is one of three options for completing requirements for the Sport Management major. Students who choose to specialize in Sport Business typically enter the sports industry in entry-level positions.

Students must maintain a 2.75 (on a scale of 4.0 ) as a minimum cumulative grade point average (GPA) in the Sport Business coursework and achieve a minimum grade of " C " in each of the courses.

## Sport Management, BS

## Program Director

Brian McGladrey, Ph.D., CSCS

## Program Description

The major in Sport Management is designed for students interested in pursuing a career in the sports industry. The sports industry in the U.S. now generates revenues that exceed \$200 billion annually. Accordingly, the number and type of career opportunities associated with sport continues to grow. Classroom learning, combined with experiential learning gained through practicums and internships, will allow students who earn a Bachelor of Science in Sport Management to position themselves for success in entry-level positions in a variety of sport-related occupations.

Examples of potential careers in sport management include:

- Collegiate Coaching = coaching, recruiting, summer camps
- Interscholastic Coaching = coaching
- Youth Coaching/Leadership $=$ coaching, league director
- Professional Sports Teams = ticket sales, marketing,
- Collegiate Athletics = athletics director, public relations, compliance
- City/Community Recreation = administration, league director, promotions
- Athletic Facilities = management, membership marketing/sales
- Collegiate Recreation = management, student services, facilities


## Sport Management Emphasis Areas

Students choosing to major in Sport Management will complete a "core" of coursework, and choose to specialize in one of the following emphasis areas:

- Sport Coaching
- Sport Business
- Physical Activity Programming


## Admission Requirements

Students must complete SPM 101-Contemporary Sport
Management before applying to the program. For the major application procedure, contact the Sport Management Program Director.

## Graduation Requirements

Students must maintain a 2.75 (on a scale of 4.0 ) as a minimum cumulative grade point average (GPA) in the major's coursework.

## Program Requirements

Students must choose one from three Sport Management specializations: (1) Sport Coaching; (2) Sport Business; or (3) Physical Activity Programming. A minimum grade of "C" is required in each of the major's courses.

## Required Core Courses

- ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- PE 448 - Coaching and Competitive Ethics Credits: (3)
- PE 453 - Psychological and Sociological Foundations of Coaching Credits: (3)
- SPM 101 - Contemporary Sport Management Credits: (3)
- SPM 315 - Legal Liability and Risk Management in Sport Credits: (3)
- SPM 355 - Public Relations and Promotions in Sport Credits: (3)
- SPM 365 - Sports Facilities and Events Management Credits: (3)
- SPM 465 - Global Perspectives in Sport Credits: (3)
- SPM 490 - Sport Management Internship Credits: (112) (Must be taken for 6 credits.)
- SPM 492 - Practicum in Sport Management Credits: (3)


## Total Core Credits: 35

Sport Business Specialization
Required Courses Credits: 15

- MGT 380- Organizational Management Credits: (5)
- MKT 360 - Principles of Marketing Credits: (5)
- MKT 370 - Sports Marketing and Sponsorship Credits: (5)

Department-Approved Electives Credits: 15

Select from the following:

- BUS 401 - Business Boot Camp Credits: (1)
- MGT 394 - Legal Considerations in Sport Business Credits: (5)
- MGT 395 - Leadership in Business Organizations Credits: (5)
- MKT 371 - Sponsorship and Promotion in Sport Business Credits: (5)
- MKT 372 - Revenue Generation and Finance in Sport Business Credits: (5)

Total Specialization Credits: 30

Total Credits: 65

## Sport Management BS, Sport Coaching Specialization

The specialization in Sport Coaching is one of three options for completing requirements for the Sport Management major. Students who choose to specialize in Sport Coaching typically enter the coaching field at the youth, interscholastic, or collegiate levels, either in paid or volunteer positions.

Students must maintain a 2.75 (on a scale of 4.0 ) as a minimum cumulative grade point average (GPA) in the Sport Coaching coursework and achieve a minimum grade of " C " in each of the courses.

Sport Management, BS

## Program Director

Brian McGladrey, Ph.D., CSCS

## Program Description

The major in Sport Management is designed for students interested in pursuing a career in the sports industry. The sports industry in the U.S. now generates revenues that exceed $\$ 200$ billion annually. Accordingly, the number and type of career opportunities associated with sport continues to grow. Classroom learning, combined with experiential learning gained through practicums and internships, will allow students who earn a Bachelor of Science in Sport Management to position themselves for success in entry-level positions in a variety of sport-related occupations.

Examples of potential careers in sport management include:

- Collegiate Coaching = coaching, recruiting, summer camps
- Interscholastic Coaching = coaching
- Youth Coaching/Leadership = coaching, league director
- Professional Sports Teams = ticket sales, marketing,
- Collegiate Athletics = athletics director, public relations, compliance
- City/Community Recreation = administration, league director, promotions
- Athletic Facilities = management, membership marketing/sales
- Collegiate Recreation = management, student services, facilities


## Sport Management Emphasis Areas

Students choosing to major in Sport Management will complete a "core" of coursework, and choose to specialize in one of the following emphasis areas:

- Sport Coaching
- Sport Business
- Physical Activity Programming


## Admission Requirements

Students must complete SPM 101-Contemporary Sport
Management before applying to the program. For the major application procedure, contact the Sport Management Program Director.

## Graduation Requirements

Students must maintain a 2.75 (on a scale of 4.0 ) as a minimum cumulative grade point average (GPA) in the major's coursework.

## Program Requirements

Students must choose one from three Sport Management specializations: (1) Sport Coaching; (2) Sport Business; or (3) Physical Activity Programming. A minimum grade of "C" is required in each of the major's courses.

## Required Core Courses

- ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
- PE 448 - Coaching and Competitive Ethics Credits: (3)
- PE 453 - Psychological and Sociological Foundations of Coaching Credits: (3)
- SPM 101 - Contemporary Sport Management Credits: (3)
- SPM 315 - Legal Liability and Risk Management in Sport Credits: (3)
- SPM 355 - Public Relations and Promotions in Sport Credits: (3)
- SPM 365 - Sports Facilities and Events Management Credits: (3)
- SPM 465 - Global Perspectives in Sport Credits: (3)
- SPM 490 - Sport Management Internship Credits: (112) (Must be taken for 6 credits.)
- SPM 492 - Practicum in Sport Management Credits: (3)

Total Core Credits: 35

Sport Coaching Specialization
Required Courses Credits: 18

- HED 205 - Drugs and Sport Credits: (3)
- PE 346 - Administration of Athletes Credits: (3)
- PE 365 - Foundations of Coaching Credits: (3)
- PE 495 - Field Work in Sport Coaching Credits: (3)
- PESH 358 - Applications of Resistance, Core, and Cardiovascular Training Credits: (3)
- PESH 458 - Diagnosis and Analysis of Human Movement Credits: (3)

Department-Approved Electives Credits: 9

Select from the following:

- HPE 443 - Sex, Drugs and Going Pro: Issues in Professional Sports Credits: (3)
- HPE 444 - The Promise and Pitfalls in Interscholastic Athletic Programs Credits: (3)
- HPE 445 - The Good, Bad and Ugly of Intercollegiate Sports Credits: (3)
- PE 321 - Football Coaching Credits: (3)
- PE 323 - Basketball Coaching Credits: (3)
- PE 325 - Baseball Coaching Credits: (3)
- PE 326-Theory of Coaching Soccer Credits: (3)
- PE 330 - Volleyball Coach Credits: (3)

Total Specialization Credits: 27

Total Credits: 62

## Dance Performance Minor (PESHMS)

## Program Director

Therese Young
The dance performance minor is an interdisciplinary minor administered jointly by the dance and theatre arts faculty designed for students who wish to broaden their academic background and receive a well-rounded dance education, thus preparing them in the area of dance performance in a wide variety of settings. Students will develop competencies in choreography, rhythmic concepts, and dance production.

## Program Requirements

Minimum of one-year participation in DNCE 112 Dance Performance (Orchesis Dance Company). By audition.

## Required Courses Credits: 26-27

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 103 - Modern Technique I Credits: (2)
- DNCE 112 - Dance Performance Credits: (1)
- DNCE 161 - Cultural History of Dance Credits: (4)
- DNCE 204 - Ballet Technique II Credits: (2)
- DNCE 205 - Ballet Technique II Credits: (2)
- DNCE 206 - Ballet Technique II Credits: (2)
- DNCE 300 - Dance Composition Credits: (3)
- DNCE 311 - Music for Dance - Rhythms and Resources Credits: (3)
- OR TH 215 - Music Fundamentals I Credits: (3)
- DNCE 402 - Dance Production Credits: (4)
- OR TH 301 - Production Application Credits: (3)

Department-Approved Electives Credits: 10

Choose any of the following for a minimum of 10 credits: Only one credit courses may be repeated.

- DNCE 121 - Tap Dance I Credits: (1)
- DNCE 122 - Tap Dance II Credits: (1)
- DNCE 130 - American Style Ballroom Dance I Credits: (1)
- DNCE 131 - American Style Ballroom Dance II Credits: (1)
- DNCE 132 - American Style Ballroom Dance III Credits: (1)
- DNCE 133 - International Standard Ballroom Dance I Credits: (1)
- DNCE 134 - International Standard Ballroom Dance II Credits: (1)
- DNCE 135 - International Standard Ballroom Dance III Credits: (1)
- DNCE 136 - International Latin Ballroom Dance I Credits: (1)
- DNCE 137 - International Latin Ballroom Dance II Credits: (1)
- DNCE 138 - International Latin Ballroom Dance III Credits: (1)
- DNCE 141 - Jazz Dance I Credits: (1)
- DNCE 142 - Jazz Dance II Credits: (1)
- DNCE 143 - Jazz Dance III Credits: (1)
- DNCE 150 - Mat Pilates Credits: (1)
- DNCE 155 - Pointe and Variations Credits: (1)
- DNCE 156 - Partnering Credits: (1)
- DNCE 201 - Modern Technique II Credits: (2)
- DNCE 202 - Modern Technique II Credits: (2)
- DNCE 203 - Modern Technique II Credits: (2)
- DNCE 304 - Ballet Technique III Credits: (2)
- DNCE 305 - Ballet Technique III Credits: (2)
- DNCE 306 - Ballet Technique III Credits: (2)
- DNCE 401 - Choreography Credits: (4)
- TH 252 - Stage Dance Credits: (1)
- TH 352 - Stage Dance II Credits: (2)

Total Credits: 36-37

College and Department Information

Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

## Physical Activity and Recreation Programming Minor

Physical Activity and Recreation Programming Minor Core

## Program Directors

Heidi Henschel Pellett, EdD, physical education and school health

Barbara Masberg, PhD , recreation and tourism

## Program Advisors

Debra D'Acquisto, MA, physical activity
Robert Perkins, EdD, recreation and tourism
This interdisciplinary physical activity and recreation programming minor is designed for students who want to instruct and direct activities in various settings, such as, parks and recreation, nonprofit organizations, cruise lines, resorts, and other active lifestyle organizations.

## Admission Requirements

Applications are accepted throughout the academic year. To be admitted to the minor, all students must have a cumulative grade point average of a 2.75 . For the application procedure, contact a program director in Physical Education and School Health or Recreation and Tourism to complete a specific application form. All courses in the minor require a grade of a C or higher.

## Required Courses

- PESH 341 - Characteristics of Effective Physical Education Teaching Credits: (3)
- PESH 343 - Pedagogical Application of Teaching Styles and Systematic Reflection Credits: (3)
- PESH 356 - Teaching Lifelong Physical Activity Pursuits Credits: (3)
- PESH 456 - Facilitating and Leading Adventure Activities in the Schools Credits: (2)
- RTE 484 - Legal Liability and Risk Management Credits: (4)

Select from one of the following Credits: (3)

- RTE 222 - Recreation Programming and Activities Credits: (3)
- OR Choose three (3) Physical Activity Courses from the following categories:
PEID (1), PEF (1), PEAQ (1) PETS (1), PED (1)
Select from one of the following Credits: (3-4)
- FCS 220 - Leadership in Human Development Credits: (4)
- PESH 330 - Positive Youth Development in Physical Activity Credits: (3)

Select from one of the following Credits: (2-4)

- RTE 293- Outdoor Leadership Training Credits: (2)
- RTE 300 - Challenge Course Leadership Credits: (4)
- RTE 360 - Outdoor Survival Credits: (3)
- RTE 431 - Recreation Administration of Retreats and Camps Credits: (3)

Select from one the following Credits: (3-5)

- RTE 381 - Recreational Sports Management Credits: (3)
- RTE 382 - Community Recreation Credits: (3)
- RTE 487 - Outdoor Recreation Issues Credits: (3)

Choose certifications totaling Credits: (3)

- EMS 245 - Advanced First Aid and Emergency Response Credits: (3)
- PE 115 - Beginning Climbing Credits: (1)
- PE 116 - Intermediate Climbing Credits: (1)
- PE 220 - Climbing Wall Instructor Credits: (2)
- PEAQ 221 - Lifeguard Training Credits: (3)
- PEAQ 320 - Water Safety Instructor Credits: (3)

Total Credits: 29-34

College and Department Information
Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

## Physical Education - Dance Minor

## Program Director

Therese Young, MA
The dance minor is designed for students who wish to broaden their academic background and receive a well-rounded dance education, thus preparing them to teach dance and/or dance activities in a wide variety of settings.

## Program Requirement

Minimum of one-year active membership in Orchesis Dance Company. Membership (by audition). See the department web page for audition information at www.cwu.edu/dance.

## Required Courses

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 103 - Modern Technique I Credits: (2)
- DNCE 104 - Ballet Technique I Credits: (2)
- DNCE 105 - Ballet Technique I Credits: (2)
- DNCE 106 - Ballet Technique I Credits: (2)
- DNCE 112 - Dance Performance Credits: (1)
- DNCE 161 - Cultural History of Dance Credits: (4)
- DNCE 300 - Dance Composition Credits: (3)
- DNCE 309 - Teaching Methods: Recreational Dance Credits: (3)
- DNCE 311 - Music for Dance - Rhythms and Resources Credits: (3)
- DNCE 315 - Teaching Methods: Modern and Ballet Dance Credits: (4)
- DNCE 355 - Principles of Functional Alignment for Dance Credits: (3)
- DNCE 402 - Dance Production Credits: (4)

Total Credits: 37

College and Department Information

Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

## Physical Education - Dance: Teaching Minor

This minor satisfies the endorsement competencies for dance in Washington State. Students must be fully admitted to the Teacher Certification Program to pursue coursework for a Dance Education minor.

Students will be required to complete technique classes in those areas of dance frequently taught in a K-12 setting. Additionally, students will develop competencies in dance composition \& choreography, rhythmic concepts, dance production, and teaching.

## Required Courses

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 103 - Modern Technique I Credits: (2)
- DNCE 104 - Ballet Technique I Credits: (2)
- DNCE 105 - Ballet Technique I Credits: (2)
- DNCE 106 - Ballet Technique I Credits: (2)
- DNCE 161 - Cultural History of Dance Credits: (4)
- DNCE 300 - Dance Composition Credits: (3)
- DNCE 309 - Teaching Methods: Recreational Dance Credits: (3)
- DNCE 311 - Music for Dance - Rhythms and Resources Credits: (3)
- DNCE 314 - Dance for Children Credits: (3)
- DNCE 355 - Principles of Functional Alignment for Dance Credits: (3)
- DNCE 402 - Dance Production Credits: (4)

Total Credits: 35

College and Department Information
Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

## Program Coordinator

Brian McGladrey, PhD

## Program Information

The Sport Coaching minor will provide appropriate training to students interested in entering the coaching
profession. Typically, students who complete this minor enter the coaching field at the youth, high school, or collegiate levels, either in paid positions or as volunteers. The Sport Coaching program's curriculum satisfies the "initial 30-hour requirement" of the Washington Interscholastic Activities Association's (WIAA) Coaching Standards program. Additionally, coursework is designed to meet the competencies as outlined by the National Council for Accreditation of Coaching Education
(NCACE) in its "National Standards for Sport Coaches." The content of the core coursework includes the scientific and practical competencies that athletes, administrators, parents, and the public should expect of coaches; it provides prospective coaches with the knowledge and skills necessary to become competent and effective coaches.

## Admission Requirements

Students wishing to declare Sport Coaching as a minor will need to meet with the Sport Coaching Program Director and complete a CWU program application.

## Program Requirements

Students must achieve a letter grade of C or higher for each of the courses in the minor. Additionally, students will need to complete a fingerprinting process (background check) and CPR certification prior to registering for PE 495 - Field Work in Sport Coaching.

## Required Courses

- HED 205 - Drugs and Sport Credits: (3)
- PE 365 - Foundations of Coaching Credits: (3)
- PE 448 - Coaching and Competitive Ethics Credits: (3)
- PE 453 - Psychological and Sociological Foundations of Coaching Credits: (3)
- PE 495 - Field Work in Sport Coaching Credits: (3)
- PESH 358 - Applications of Resistance, Core, and Cardiovascular Training Credits: (3)
- PESH 458 - Diagnosis and Analysis of Human Movement Credits: (3)


## Electives

Select a minimum of 6 credits from the following:

- EXSC 350 - Gross Anatomy Credits: (3)
- EXSC 350LAB - Gross Anatomy Laboratory Credits: (2)
- EXSC 351 - Physiology Credits: (4)
- EXSC 351LAB - Physiology Laboratory Credits: (1)
- EXSC 352 - Assessment and Treatment of Athletic Injuries Credits: (4)
- PE 321 - Football Coaching Credits: (3)
- PE 323 - Basketball Coaching Credits: (3)
- PE 325 - Baseball Coaching Credits: (3)
- PE 326 - Theory of Coaching Soccer Credits: (3)
- PE 330 - Volleyball Coach Credits: (3)
- PE 346 - Administration of Athletes Credits: (3)
- PE 521 - Advanced Football Coaching Credits: (3)
- PE 523 - Advanced Basketball Coaching Credits: (3)

Total Credits: 27

College and Department Information

Physical Education, School Health, and Movement Studies Department
College of Education and Professional Studies

# Physics Department 

College of the Sciences

Ellensburg
Science II, room 139
Mail Stop 7422
509-963-2727
www.cwu.edu/physics
See website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Andrew Piacsek, PhD

## Professor

Bruce Palmquist, PhD, science education

## Associate Professors

Michael Braunstein, PhD, nuclear physics, astronomy
Andrew Piacsek, PhD, acoustics, computational physics

## Assistant Professors

Erin Craig, PhD, computational biophysics
Cassandra Fallscheer, PhD , astronomy
Nathan Kuwada, PhD, experimental biophysics
Darci Snowden, PhD, atmospheric physics
Benjamin White, PhD, condensed matter physics

## Lecturer

Anthony Smith, PhD, physics

## Staff

Rachel Foss, secretary
Deanna Marshall, recruiting and advising specialist
Addison Wenger, instructional and classroom technician III Peter Zencak, instructional and classroom technician IV

## Department Information

## Overview

Physics is the study of the universe and its elements-from the interaction of subatomic particles and investigations in nanoscale science, to the motion of everyday objects, to the evolution of galaxies. Physics involves discovering the fundamental rules that describe matter and energy on every scale, hence it is the basic science that underlies all the natural sciences.

Most businesses want people who can analyze complex situations and solve problems. CWU physics majors learn these skills along with computational and electronics skills. The physics curriculum includes theoretical courses as well as laboratory classes and hands-on research that provide the practical training relevant to both graduate school or professional work in science and engineering. Recent acquisitions of state-of-the-art instrumentation in astronomy, acoustical physics, and lasers enrich students' experience in the laboratory and research setting. Students also have the opportunity to participate in programs outside the formal courses offered by participating in the department's award-winning Physics Club and Astronomy Club. The CWU physics program offers a BS degree, a BA degree (which doubles as our teaching degree), and engineering opportunities through our dual-degree physics/engineering program.

## Department Standards

All students must meet with the physics chair to map out a fouryear plan. The student can then select a faculty advisor. All faculty members are physics major advisors. Most upper-level physics courses are offered every other year. Thus, students who wait too long to meet with an advisor may have their graduation delayed. All physics majors must complete a physics major portfolio.

## Honors Designation

The honors designation in physics recognizes the academic excellence of its majors. Students in the department's BA and BS programs are eligible for this designation and all physics majors are urged to consider applying. The honors designation in physics is offered in collaboration with Sigma Pi Sigma, the National Physics Honors Society. Please contact the physics department chair for more information.

## Dual-degree Physics/Engineering Program

This dual-degree program enables a student to receive a baccalaureate degree in physics from CWU and a bachelor of science from an appropriate engineering institution in a respective engineering discipline. The total length of time for both degrees is expected to be about five years, with approximately three years at CWU (dating from enrollment in MATH 172) and approximately two years at the engineering institution. At CWU, students must complete a minimum of 135 credits, including all general education requirements. Additional courses may be required depending on the specific engineering discipline. Be sure to consult the appropriate dual-degree engineering advisor for details.

In order to receive the baccalaureate degree from CWU, dualdegree students must also complete the remaining credits (to total a minimum of 180 credits) in engineering at the Engineering Institution and transfer these credits to CWU. The remaining credits must include the appropriate number of 300level or above from the Engineering Institution to satisfy CWU graduation requirements. This transfer of credits and awarding of the baccalaureate degree by CWU can take place as soon as the student earns the necessary credits.

## Special Requirements:

Early consultation with the physics department chair is mandatory to ensure that specific additional requirements of particular engineering curricula are also satisfied. It is solely the student's responsibility to apply and gain admission to the Engineering Institution. It is also the individual student's
responsibility to submit an official transcript of the work completed after leaving CWU and to request awarding of the baccalaureate degree in physics.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/physics or by contacting the department directly.

## Dual-degree Physics/Engineering Program

This dual-degree program enables a student to receive a baccalaureate degree in physics from CWU and a bachelor of science from an appropriate engineering institution in a respective engineering discipline. The total length of time for both degrees is expected to be about five years, with approximately three years at CWU (dating from enrollment in MATH 172) and approximately two years at the engineering institution. At CWU, students must complete a minimum of 135 credits, including all general education requirements. Additional courses may be required depending on the specific engineering discipline. Be sure to consult the appropriate dual-degree engineering advisor for details.

In order to receive the baccalaureate degree from CWU, dualdegree students must also complete the remaining credits (to total a minimum of 180 credits) in engineering at the Engineering Institution and transfer these credits to CWU. The remaining credits must include the appropriate number of $300-$ level or above from the Engineering Institution to satisfy CWU graduation requirements. This transfer of credits and awarding of the baccalaureate degree by CWU can take place as soon as the student earns the necessary credits.

## Special Requirements:

Early consultation with the physics department chair is mandatory to ensure that specific additional requirements of particular engineering curricula are also satisfied. It is solely the student's responsibility to apply and gain admission to the Engineering Institution. It is also the individual student's responsibility to submit an official transcript of the work completed after leaving CWU and to request awarding of the baccalaureate degree in physics.

## College and Department Information

Physics Department
College of the Sciences

## Physics Major, BA

The BA program is for students wanting a broad liberal arts education with an emphasis in physics and is the appropriate major for students interested in teaching high school physics. It may be a suitable foundation for students who are planning a career not usually regarded as physics, such as business
education, law, medicine, writing, environmental concerns, public safety, or computer programming.

## Teaching Endorsement

This major partially satisfies the criteria for a teaching endorsement in Physics (5-12), qualifying students to teach physics at the high school, middle, or junior high levels. Students who successfully complete the Physics BA and STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the physics teaching advisor as soon as possible to develop a course of study.

## Teaching Endorsement Requirements:

This major satisfies the criteria for an endorsement in physics and qualifies students to teach physics at the high school, middle, or junior high levels. Students taking this major for endorsement are required to take the Science and Mathematics Teaching Minor. See the physics teaching advisor as early as possible to develop a graduation plan. Students completing this program are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition to the above requirements, students must pass the NES exam for physics to receive a physics endorsement. Students should seriously consider working toward endorsement in a second area, such as biology, chemistry, earth science, middle-level science, middle-level mathematics, secondary mathematics or science.

Required Courses

- MATH 265 - Linear Algebra I Credits: (4)
- PHYS 317 - Modern Physics I Credits: (4)
- PHYS 318 - Modern Physics II Credits: (4)
- PHYS 331-Laboratory Practices and Techniques Credits: (3)
- PHYS 333 - Experimental Physics I Credits: (3)
- PHYS 361 - Computational Physics Credits: (4)
- PHYS 363-Optics Credits: (4)
- PHYS 489 - Senior Assessment Credits: (1)
- PHYS 495 - Undergraduate Research Credits: (1-2)

General Physics - Credits: 15

- PHYS 181 - General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

General Chemistry - Credits: 10

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)

Calculus - Credits: 20

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)

Department-Approved Electives Credits: 9

At least four credits must be from the physics department at the 200 -level or above. The rest of the credits may be from any department, including physics, at the 200level or above. Courses must be approved by the department chair and advisor.

Total Credits: 83

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 133

College and Department Information

Physics Department
College of the Sciences

## Physics Major, BS

Those interested in receiving an advanced degree in physics or engineering may choose the bachelor of science degree in physics. The bachelor of science degree is designed for individuals planning careers in physics and related technical fields or in areas where knowledge of basic scientific principles is necessary. Incoming freshman prepared to take calculus their first quarter at CWU should be able to complete the bachelor of science degree in four years.

## Physics Core Requirements

General Chemistry Credits: 10

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)

Mathematics Credits: 27

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 376 - Differential Equations I Credits: (3)


## Physics Credits: 28

- PHYS 317 - Modern Physics I Credits: (4)
- PHYS 342 - Thermodynamics Credits: (4)
- PHYS 351-Analytical Mechanics I Credits: (3)
- PHYS 361 - Computational Physics Credits: (4)
- PHYS 363 - Optics Credits: (4)
- PHYS 381 - Electromagnetic Theory I Credits: (4)
- PHYS 489 - Senior Assessment Credits: (1)
- PHYS 495 - Undergraduate Research Credits: (1-2) (Must be taken for 4 credits)

Total Core Credits: 65
Major Courses
General Physics Credits: 15

- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Additional Physics Courses Credits: 21

- PHYS 331-Laboratory Practices and Techniques Credits: (3)
- PHYS 333 - Experimental Physics I Credits: (3)
- PHYS 352 - Analytical Mechanics II Credits: (3)
- PHYS 382 - Electromagnetic Theory II Credits: (4)
- PHYS 383 - Electromagnetic Theory III Credits: (4)
- PHYS 474-Quantum Mechanics I Credits: (4)

Department-Approved Electives Credits: 5
Total Major Courses Credits: 41
Total Credits: 106

College and Department Information

Physics Department
College of the Sciences

## Physics Major BS, Biophysics Specialization

Biophysics is the application of the principles and tools of physics to the study of biological systems. Biophysicists contribute to the understanding of a wide range of interdisciplinary scientific subfields including biotechnology, quantitative molecular and cellular biology, medical physics, neuroscience and biomechanics. The goal of the Physics B.S. with Biophysics specialization is to prepare graduates to be competitive in applications for entry into graduate degree programs in biophysics, physics, and related fields; jobs in government research labs; and private sector employment in areas such as biotechnology. Depending on math preparation, students should be able to complete the Bachelor of Science degree, with Biophysics specialization, in four years at CWU.

## Physics Core Requirements

General Chemistry Credits: 10

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182 - General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)

Mathematics Credits: 27

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)
- MATH 265 - Linear Algebra I Credits: (4)
- MATH 272 - Multivariable Calculus I Credits: (5)
- MATH 273 - Multivariable Calculus II Credits: (5)
- MATH 376 - Differential Equations I Credits: (3)

Physics Credits: 28

- PHYS 317 - Modern Physics I Credits: (4)
- PHYS 342 - Thermodynamics Credits: (4)
- PHYS 351 - Analytical Mechanics I Credits: (3)
- PHYS 361 - Computational Physics Credits: (4)
- PHYS 363- Optics Credits: (4)
- PHYS 381 - Electromagnetic Theory I Credits: (4)
- PHYS 489 - Senior Assessment Credits: (1)
- PHYS 495 - Undergraduate Research Credits: (1-2) (Must be taken for 4 credits)

Total Core Credits: 65
Biophysics Specialization
Introductory/General Physics Credits: 15

- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5)

OR

- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Specialization Courses Credits: 23

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)
- PHYS 322 - Molecular Biophysics Credits: (4)
- PHYS 323 - Experimental Biophysics Credits: (4)

Department-Approved Electives Credits: 7
Total Specialization Credits: 45
Total Credits: 110
College and Department Information
Physics Department
College of the Sciences

## Astronomy Minor

The astronomy minor is an excellent complement to a variety of other science majors. It is also ideal for students who want to reinforce a liberal arts major with a science background. Astronomy minors may not use any courses in this minor as physics major electives.

## Required Courses

- PHYS 201- Operation and Research Techniques for Small Observatories Credits: (3)
- PHYS 301 - Stellar Astrophysics I Credits: (3)
- PHYS 302 - Stellar Astrophysics II Credits: (2)
- PHYS 317 - Modern Physics I Credits: (4)

Introductory Astronomy - Credits: 5

- PHYS 101 - Introductory Astronomy I Credits: (5)

Introductory or General Physics - Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Select either: Credits 2

- PHYS 492 - Laboratory Experience in Teaching Physics Credits: (2)
- OR PHYS 495 - Undergraduate Research Credits: (1-2)

Calculus - Credits: 10

- MATH 172-Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Total Credits: 44

College and Department Information

Physics Department
College of the Sciences

## Physics Minor

The physics minor is an excellent complement to a variety of other science majors. It is also ideal for students who want to reinforce a liberal arts major with a technical background.

Students taking this minor to obtain a teaching endorsement can receive a teaching endorsement in physics only if the following requirements are met:

- The student will also earn a certification in Biology, Chemistry, Earth Science, Middle Level Science, or Secondary Mathematics.
- The student passes the NES exam for Physics.

Upper-division Physics - Credits: 8

- PHYS 317 - Modern Physics I Credits: (4)
- PHYS 363 - Optics Credits: (4)

Lower-division Physics - Credits: 15

Choose one of the lower-division course sequences.

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113 - Introductory Physics III with Laboratory Credits: (5)
OR
- PHYS 121 - Introductory Physics for Life Sciences I Credits: (5)
- PHYS 122 - Introductory Physics for Life Sciences II Credits: (5)
- PHYS 123 - Introductory Physics for Life Sciences III Credits: (5) OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182 - General Physics II with Laboratory Credits: (5)
- PHYS 183 - General Physics III with Laboratory Credits: (5)

Calculus - Credits: 10

- MATH 172 - Calculus I Credits: (5)
- MATH 173 - Calculus II Credits: (5)

Department-approved Upper-division Electives: 3-5 credits
Total Credits: 36-38

College and Department Information

Physics Department
College of the Sciences

## Political Science Department

College of the Sciences
Ellensburg
Psychology Bldg., room 414
Mail Stop 7578
Phone: 509-963-2408
FAX: 509-963-1134
www.cwu.edu/political-science
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Paul Knepper, PhD

## Professors

Michael A. Launius, PhD, comparative politics, Asian politics, international political economy, international politics Mathew Manweller, PhD, constitutional law, American political thought, American political economy, direct democracy Barb Rieffer-Flanagan, PhD , political theory, comparative politics, politics of the Middle East, international human rights, religion and politics
Todd M. Schaefer, PhD, American politics, public opinion,
congress, campaigns and elections, African politics, American presidency
Rex Wirth, PhD , public administration and public policy, international politics, Western Europe
Bang-Soon Yoon, PhD, comparative politics, public policy, women and politics, Korean politics, East Asia politics, globalization studies

## Associate Professor

Gilberto Garcia, PhD, Latino politics and studies, Latin American politics, comparative politics, and U.S.-Mexico border relations

## Emeritus Professor

Robert C. Jacobs, PhD, American law and politics

## Senior Lecturer

Stefanie Wickstrom, PhD, environmental justice and politics, identity politics, social movements and environmental history

## Staff

TBA, secretary senior

## Department Information

The department provides an opportunity for students to become knowledgeable about the general subject matter of political science, while also offering a variety of courses that can provide depth in an area of the student's interest. Flexibility in the selection of courses is stressed.
The department requires all political science majors to participate in the end-of-major assessment exercise at the conclusion of their senior year. Information on the assessment requirement may be obtained from the department's main office. Students must earn a grade of C- or higher in order for that course to count in their political science major.

## Political Science Honors

Political science majors will qualify for honors at graduation with an overall GPA of 3.00 and a GPA of 3.50 in all political science courses.
Students may choose either a 47 -credit major or a 62 -credit major. Those who have a second major or who have a minor in another discipline may opt for the 47-credit major.

## Political Science Core Requirements

POSC 101 - Introduction to Politics 5
POSC 210 - American Politics 5
POSC 260 - Comparative Politics 5
POSC 270 - International Politics 5
Political Science Core Total Credits: 20

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/political-science or by contacting the department directly.

## Political Science Major, BA (47 credits) ( 62 credits)

Students may choose either a 47 -credit major or a 62 -credit major. Those who have a second major or who have a minor in another discipline may opt for the 47-credit major.

## Required Courses

Political Science Core Requirements

- POSC 101 - Introduction to Politics Credits: (5)
- POSC 210 - American Politics Credits: (5)
- POSC 260 - Comparative Politics Credits: (5)
- POSC 270 - International Relations Credits: (5)

Political Science Core Total Credits: 20

Additional Required Courses

- POSC 489 - Senior Assessment Credits: (2)

Select from the following: 5 Credits

- POSC 481 - Early Political Thought Credits: (5)
- POSC 482 - Early Modern Political Thought Credits: (5)
- POSC 483 - Recent Political Thought Credits: (5)
- POSC 485 - American Political Thought and Culture Credits: (5)

Electives Credits: 20-35

Select from any other courses in this department. (Any transfer political science electives must be approved by the department.)

- 47-credit major (20)
- 62-credit major (35)

Total Credits: 47-62

College and Department Information

Political Science Department
College of the Sciences

## Political Science Minor

Required Courses

Political Science Core Requirements

- POSC 101 - Introduction to Politics Credits: (5)
- POSC 210 - American Politics Credits: (5)
- POSC 260 - Comparative Politics Credits: (5)
- POSC 270 - International Relations Credits: (5)


## Additional Required Courses

- Electives Credits: 10

Select from any other courses in this department. (Any transfer political science electives must be approved by the department.)

Total Credits: 30

College and Department Information

Political Science Department
College of the Sciences

## Primate Behavior and Ecology Program

College of the Sciences

Ellensburg
Dean Hall, room 357A
509-963-3201
Fax: 509-963-3215
www.cwu.edu/primate
See website for how this program may be used for educational and career purposes.

## Program Director

Lori K. Sheeran, PhD, anthropology, Dean Hall, room 335

## Professors

Dan Beck, PhD, biology, ecology and behavior
Kara I. Gabriel, PhD, psychology, experimental psychology, biopsychology
Lori K. Sheeran, PhD, anthropology, primate behavior, primate conservation, biological anthropology
Lixing Sun, PhD, biology, ecology and evolution of animal behavior (especially communication systems), chemical ecology
R. Steven Wagner, PhD , biology, conservation population genetics, molecular evolution

## Associate Professors

Matthew Altman, PhD , philosophy, applied ethics (including environmental ethics and ethics and animals), 19th century philosophy, ethics, social and political philosophy, philosophy of art, philosophy of law
Ralf Greenwald, PhD, psychology, general cognition, human neurophysiology, working memory, attention, language

## Assistant Professor

Jessica A. Mayhew, PhD, anthropology, primate social behavior and socio-cognition, great apes, play behavior
Mary Radeke, PhD, psychology, child-language development, neuropsychology, experimental psychology
Rodrigo Renteria-Valencia, PhD, anthropology, environmental anthropology

## Lecturers

Sofia Blue, PhD, anthropology, primatology, signal systems in nonhuman primates, research methodology

Mary Lee Jensvold, PhD, primatology, primate cognition, chimpanzee behavior
JB Mulcahy, MS, primatology, primate captive care, chimpanzee behavior

## Staff

Penelope Anderson, secretary senior

## Program Information

This program provides majors with interdisciplinary perspectives on the behavior and ecology of nonhuman primates in both captive and free-living settings. It serves as background for graduate study in the behavior, ecology, or phylogeny of primates, as well as for care-giving careers with primates living in laboratories, zoos, or other captive facilities. Lab fees required for PRIM 220, PRIM 320, and ANTH 416.

A double major is REQUIRED with the PBE degree. Students must complete the requirements for the PBE major as well as the requirements for a 45-plus-credit major in anthropology, biology, or psychology. Students interested in the major should contact the program office as soon as possible for further information, application forms, and assignment of an advisor. PBE majors are expected to meet with their advisor at least once a quarter.

## Special Programs

The program sponsors and is affiliated with a wide range of onand off-campus activities that provide students with opportunities to conduct faculty-mentored scientific projects or internships.

The PBE library in room 204 Dean Hall houses several hundred books, articles, and DVDs/videotapes related to primatology. The room includes a TV, DVD player, and four computer work stations.

The PBE program has available for student use one video camera, two digital cameras, two DVD players, one television, observational software (The Observer), and two PDAs for using this software at remote locations. The Observer software can also be used on two desktop computers.

Students and faculty who have been approved to conduct research at CHCI may have access to resources housed there. These include an extensive library of articles, books, videos, and DVDs, and more than 20 years of archived video footage collected from the chimpanzees living there. CHCI also houses several VCRs, TVs, DVD players, video cameras, and computers that students can use in research projects conducted at CHCI. Access is considered on a case-by-case basis in consultation with the director and associate director of CHCI.

The Anthropological Genetics Laboratory in room 232A Dean Hall is equipped for performing DNA extractions, PCR (Polymerase Chain Reaction) amplification, genotyping, and DNA sequencing. Software for analyzing genetic data and performing phylogenetic analysis is also available.

The anthropology department owns casts of fossil and living nonhuman primates. These span a variety of taxa including prosimians, monkeys, and apes. Access is considered on a case-by-case basis in consultation with the anthropology faculty.

The PBE program is affiliated with the Conservation and Biodiversity Field School in China, which is coordinated through the CWU Office of International Study and Programs.

Students can develop faculty-mentored internship experiences based at CHCI, the Woodland Park Zoo, and other sites.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/primate or by contacting the department directly.

## Primate Behavior and Ecology Major, BS

This program provides majors with interdisciplinary perspectives on the behavior and ecology of nonhuman primates in both captive and free-living settings. It serves as background for graduate study in the behavior, ecology, or phylogeny of primates, as well as for care-giving careers with primates living in laboratories, zoos, or other captive facilities.

A double major is REQUIRED with the PBE degree. Students must complete the requirements for the PBE major as well as the requirements for a 45-plus-credit major in anthropology, biology, or psychology. Students interested in the major should contact the program office as soon as possible for further information, application forms, and assignment of an advisor. PBE majors are expected to meet with their advisor at least once a quarter.

## Required Courses

Introductory Level: Credits: 10

- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- PSY 101-General Psychology Credits: (5)

Choose one from the following: Credits: 5
*Course selection by advisement depending upon second major.

- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 181 - General Biology I Credits: (5)

Choose one from the following: Credits: 5
*Course selection by advisement depending upon second major.

- BIOL 182 - General Biology II Credits: (5)
- BIOL 200 - Plants in the Modern World Credits: (5)
*Course selection by advisement depending upon second major.
- BIOL 183 - General Biology III Credits: (5)
- BIOL 201 - Human Physiology Credits: (5)

Core Requirements
*Course selection by advisement depending upon second major.

- ANTH 313 - Primate Social Behavior Credits: (4)
- ANTH 380 - Non-Verbal Communication Credits: (4)
- ANTH 411 - Primate Conservation Credits: (4)
- OR PHIL 306 - Environmental Ethics Credits: (5)
- ANTH 413 - Research Methods in Primatology Credits: (5)
- OR PSY 300-Research Methods in Psychology Credits: (5)
- PRIM 450 - Primate Behavior and Ecology Capstone Credits: (1)

Choose one from the following: Credits: 4

- ANTH 410 - Biological Anthropology: Theoretical and Research Issues Credits: (4)
- ANTH 411 - Primate Conservation Credits: (4)
- ANTH 499 - Seminar Credits: (1-5)
- BIOL 499 - Seminar Credits: (1-5)
- PSY 442 - Evolutionary Psychology Credits: (4)
- PSY 499 - Seminar Credits: (1-5)

Choose one from the following: Credits: 4-5
*Course selection by advisement depending upon second major.

- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 440 - Ecology and Culture Credits: (4)
- BIOL 302 - Sustainability and Environmental Change Credits: (5)
- BIOL 360 - General Ecology Credits: (5)

Choose one from the following: Credits: 4-5
*Course selection by advisement depending upon second major.

- BIOL 213 - Introductory Biostatistics Credits: (4)
- PSY 362 - Introductory Statistics Credits: (5)

Choose one from the following: Credits: 4-5
*Course selection by advisement depending upon second major.

- BIOL 465 - Biology of Animal Behavior Credits: (4)
- PSY 301 - Learning Credits: (5)

Choose one from the following: Credits: 3-5

- PRIM 220 - Procedures in Captive Primate Care Credits: (1)
- PRIM 490 - Cooperative Education Credits: (1-12)
- PRIM 495A - Directed Research in Primatology Credits: (1-5)
- PRIM 495C - CHCI Directed Research Credits: (110)
- OR Other Research

Choose two of the following: Credits: 8

- ANTH 412 - Monkeys of the Neotropics Credits: (4)
- ANTH 416 - Apes Credits: (4)
- ANTH 418 - Monkeys of Asia and Africa Credits: (4)

Total Credits: 70-76

College and Department Information

Primate Behavior and Ecology Program
Anthropology and Museum Studies Department
College of the Sciences

## Captive Primate Care Certificate

CWU undergraduate students or non-matriculated students are eligible to enroll in the proposed certificate program. Certificate coursework can be used toward other degree requirements (as applicable) except ANTH 201 Grade 1 Animal Technician (1 unit), which can only be counted toward the certificate. Completion of the certificate will provide students with all skills and experiences listed by the International Primatological Society for "Animal Technician," and some skills and experiences listed for "Senior Animal Technician." This expertise may assist students in future job searches in captive primate care based at zoos, sanctuaries, and/or laboratories.

## Required Courses Credits: 9

- ANTH 201 - Grade 1 Animal Technician Credits: (1)
- ANTH 313 - Primate Social Behavior Credits: (4)
- OR ANTH 412 - Monkeys of the Neotropics Credits: (4)
- PRIM 450 - Primate Behavior and Ecology Capstone Credits: (1)
- PRIM 490 - Cooperative Education Credits: (1-12) (Must be taken for 3 credits.)

Department-approved Applied Field Electives Credits: 8-9
Choose 8-9 credits from the following list of courses:

- ANTH 110 - Bones, Apes, and Genes: Exploring Biological Anthropology Credits: (5)
- ANTH 316 - History and Theory of Molecular Anthropology Credits: (4)
- ANTH 352 - Anthropology of Environmental Issues Credits: (4)
- ANTH 411 - Primate Conservation Credits: (4)
- ANTH 413 - Research Methods in Primatology Credits: (5)
- ANTH 416 - Apes Credits: (4)
- ANTH 418 - Monkeys of Asia and Africa Credits: (4)
- BIOL 101 - Fundamentals of Biology Credits: (5)
- BIOL 453 - Mammalogy Credits: (5)
- BIOL 465 - Biology of Animal Behavior Credits: (4)
- BIOL 466 - Conservation Biology Credits: (5)
- PRIM 220 - Procedures in Captive Primate Care Credits: (1)
- PRIM 490 - Cooperative Education Credits: (1-12)
- PSY 413 - Conservation Psychology Credits: (4)
- PSY 449 - Abnormal Psychology Credits: (4) Elective courses may have pre- or co-requisites.

Total Credits: 17-18

College and Department Information

Primate Behavior and Ecology Program
Anthropology and Museum Studies Department
College of the Sciences

## Psychology Department

College of the Sciences
Ellensburg
Psychology Bldg., room 421
Mail Stop 7575
509-963-2381
Fax: 509-963-2307
www.cwu.edu/psychology
See the department website for how this major may be used for educational and career purposes (see the Career Guide under Prospective Students tab).

## Faculty and Staff <br> Chair <br> Stephanie Stein, PhD

## Assistant Chair

Stephen B. Schepman, PhD

## Professors

Terry L. DeVietti, PhD, physiological and experimental psychology
Kara I. Gabriel, PhD, general experimental psychology, spatial skills, risk-taking, biopsychology
Susan D. Lonborg, PhD, health psychology, substance abuse, clinical and research ethics, career development, gender, social networking
Megan D. Matheson, PhD, nonhuman primate social behavior, evolutionary psychology, self-injurious behavior, comparative psychology
Stephen B. Schepman, PhD, organization development, work motivation, personality theories, social psychology, statistics Anthony J. Stahelski, PhD, industrial/organizational psychology, social psychology, small group interaction, leadership, cults and extremist groups, aggression and violence, terrorism

Stephanie Stein, PhD, school psychology, curriculum-based measurement, behavior disorders in children, lifespan development, psychopathology

## Associate Professors

Marte Fallshore, PhD , environmental decision-making, psychology of law, learning, memory, statistics, cognition Ralf Greenwald, PhD , cognitive brain dynamics, event-related potentials, critical thinking, psychology of video gaming, general cognitive psychology
Heath Marrs, EdD, school psychology, educational psychology, response to intervention, gender issues in education Jeffrey M. Penick, PhD, mental health counseling, group counseling, counseling supervision, adult aging and development, health psychology
Danielle Polage, PhD, cognitive psychology, psychology and law, memory, eyewitness testimony, lying and jury deliberation Terrence J. Schwartz, PhD, educational psychology, counseling psychology, statistical analysis
Wendy A. Williams, PhD, applied behavior analysis, general experimental psychology, adults with autism, canine behavior, single-subject research

## Assistant Professors

Sara Bender, PhD, psychotic disorders, clinical expectations related to recovery, efficacy of online learning, cybersupervision
Heidi Perez, PhD, school psychology, efficacy of school-based interventions, graduate student success, social-emotional functioning and behavior in children
Tonya Buchanan, PhD, experimental psychology, social psychology, implicit and explicit attitudes, power, interpersonal perceptions, deception
Sadie Lovett, PhD, applied behavior analysis, derived stimulus relations, verbal behavior, instructional design, rehabilitation Richard Marsicano, PhD , academic and behavioral interventions, intervention adherence, performance feedback, and response to intervention
Meaghan Nolte, PhD , mindfulness, addictions treatment, counselor training, identity, epistemological development Liane Pereira, PhD, youth mental health, human development, social determinants of health, educational psychology
Mary Radeke, PhD , use of facial cues in personality assessment, conversation development in young children, personality traits, technology in the classroom, primate communication Fred Washburn, PhD, counselor development, supervision readiness, assessing counselor competency, counselor pedagogy

## Senior Lecturers

Mark Soelling, PhD, counseling psychology, psychology and the law, psychopharmacology
Elizabeth Haviland, PhD , counseling psychology, counseling supervision, multicultural counseling

## Lecturers

Christopher Beeman, PhD , behavioral neuroscience, biology of long term memory, teaching in psychology, neuroscience outreach
Cristina Bistricean, MS, high-functioning autism, behavior in rehab/nursing facilities, anxiety, intrusive thoughts Joshua Buchanan, PhD, self-conscious emotion, emotion expression, judgment and decision-making, coordination, psychology of video games

## Staff

Debbie Thomas, secretary supervisor
Loretta Ney, secretary lead
Chris Buchanan, engineering technician III

## Department Information

The psychology department offers an important behavioral science component of the university's liberal arts curriculum. As part of the General Education program, courses in psychology broaden the student's knowledge about behavior, cognition, and emotion. Through our major and minor programs, students can develop an understanding of the perspectives, content, and methods of the science and practice of psychology and prepare for graduate study.

## Admission Requirements

Prior to admission to the psychology major, students must meet the following requirements:

Completion of PSY 101 with a grade of C or higher GPA of 2.25 or higher in college coursework

Students wishing to apply for admission to the psychology major or minor are required to register with the department and be advised by a member of the department faculty. Students may register as pre-majors in psychology if they wish to join the major but have not yet met the admission requirements. The department reserves the right to change requirements as circumstances warrant. Application forms may be obtained from the department office or on the department website.

## Exit Requirements

Students are required to have a 2.5 GPA within the major area to receive the degree.
Senior psychology majors are required to complete the department's end-of-major examination in the quarter before graduating. Students should register for the examination in the department office. The purpose of this requirement is to enable us to assess whether the department has fulfilled its instructional objectives and to provide us with information that will enable us continuously to improve our programs and courses. In PSY 200 Introduction to the Major (taken after applying to the psychology major), students will learn about the portfolio requirements that will be due in PSY 489 Senior Assessment. One of the PSY 489 portfolio requirements is a minimum of ten hours of service learning and/or research assistant experience. This requirement can be met any time prior to the end of PSY 489.

## Departmental Honors

The eligibility requirements for admission to the Department of Psychology honors program include the following:

1. Admission to the program: The student must be a psychology major, at least a junior but not more than a first quarter senior and have completed core courses with a GPA of at least 3.25 in those courses and have an overall cumulative GPA of 3.0. The student must apply in writing to the department chair, with a supporting letter of recommendation from a member of the faculty who agrees to supervise the student's work to completion.
2. Requirements and Procedures: The student will register for 4-6 credits in PSY 497, Undergraduate

Honors Thesis. In consultation with the supervising faculty member, the student chooses a three-person faculty committee. Plans for the honors project, generally an empirical research study, must be approved by the entire committee. The project will culminate in a written research report and a formal defense of the thesis.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/psychology or by contacting the department directly.

## Psychology Major, BA (45 credits)

Students seeking a BA degree must complete one year of college/university study or two years of high school study of a single world language.

The 45 -credit major is intended for students who are interested in careers that would combine a background in psychology with work in fields such as social work, family studies, business, forensics, primate behavior, and other fields for which training in behavioral science would be useful. Students in the 45 -credit major are required to complete either a minor or a double major. This major would also be useful for students who intend to go directly into the work force following graduation. If a student decided later to pursue graduate school, the core courses in the 45 -credit major may transfer into the 60 -credit major.

Required Courses for the 45 -credit major

- PSY 101 - General Psychology Credits: (5)
- PSY 200 - Introduction to the Major Credits: (1)
- PSY 300 - Research Methods in Psychology Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)
- PSY 489 - Senior Assessment Credits: (2)

Select at least one course from each of the following groups:
Group I

- PSY 301 - Learning Credits: (5)
- PSY 303-Analysis of Everyday Behavior Credits: (4)


## Group II

- PSY 310 - Multicultural Psychology and Social Justice Credits: (4)
- PSY 313 - Developmental Psychology Credits: (4)
- PSY 346 - Social Psychology Credits: (4)

Group III

- PSY 445 - Clinical, Counseling, and Community Psychology Credits: (5)
- PSY 449 - Abnormal Psychology Credits: (4)
- PSY 453 - Theories of Personality Credits: (5)

Group IV

- PSY 420 - Psychology of Language Credits: (4)
- PSY 460 - Cognitive Psychology Credits: (5)

Group V

- PSY 450 - Sensation and Perception Credits: (4)
- PSY 478 - Behavioral Neuroscience Credits: (4)

Elective Credits: 4-7

May include a maximum of five lower division credits.
In addition to the classes listed above, other 300 and 400 -level psychology classes may also qualify for elective credits.

Total Credits: 45

College and Department Information

Psychology Department
College of the Sciences

## Psychology Major, BA (60 credits)

The 60 -credit major is intended to provide a foundation for professional careers and/or graduate training in psychology. It requires substantial coursework in the methodological, statistical, and content areas of psychology, while still allowing for individualized student interests and choice. Students enrolled in the 60-credit major also have the opportunity to receive credit toward their degree for participation in professional development and research experiences.

Required Courses for the 60 -credit major

- PSY 101 - General Psychology Credits: (5)
- PSY 200 - Introduction to the Major Credits: (1)
- PSY 300 - Research Methods in Psychology Credits: (5)
- PSY 362 - Introductory Statistics Credits: (5)
- PSY 363 - Intermediate Statistics and Research Methods Credits: (5)
- PSY 489 - Senior Assessment Credits: (2)

Select at least one course from each of the following groups:

Group I

- PSY 301 - Learning Credits: (5)
- PSY 303 - Analysis of Everyday Behavior Credits: (4)

Group II

- PSY 310 - Multicultural Psychology and Social Justice Credits: (4)
- PSY 313 - Developmental Psychology Credits: (4)
- PSY 346 - Social Psychology Credits: (4)

Group III

- PSY 445 - Clinical, Counseling, and Community Psychology Credits: (5)
- PSY 449 - Abnormal Psychology Credits: (4)
- PSY 453 - Theories of Personality Credits: (5)

Group IV

- PSY 420 - Psychology of Language Credits: (4)
- PSY 460 - Cognitive Psychology Credits: (5)

Group V

- PSY 450 - Sensation and Perception Credits: (4)
- PSY 478 - Behavioral Neuroscience Credits: (4)

Elective Credits: 14-17

May include a maximum of five lower division credits. In addition to the classes listed above, other 300 and 400-level psychology classes may also qualify for elective credits.
**Not more than 10 hours of PSY 295 and PSY 495 combined may be applied to a psychology major.

Total Credits: 60

College and Department Information

## Psychology Department

College of the Sciences

## Psychology Minor

## Core Courses Credits: (10)

- PSY 101 - General Psychology Credits: (5)
- PSY 300 - Research Methods in Psychology Credits: (5)

Students who have taken the research methods course required for their major in law and justice, sociology, or IDS-social sciences do not have to take PSY 300
for the psychology minor. However, they do need to replace the credits from PSY 300 with any five upper division psychology credits not otherwise allocated to the minor. The student must have a minimum of 30 psychology credits to complete the minor.

Choose two courses from the following list: Credits (8-10)

- PSY 301 - Learning Credits: (5)
- OR PSY 303-Analysis of Everyday Behavior Credits: (4)
- PSY 313 - Developmental Psychology Credits: (4)
- OR PSY 314 - Human Development and the Learner Credits: (4)
- PSY 346 - Social Psychology Credits: (4)
- PSY 420 - Psychology of Language Credits: (4)
- PSY 445 - Clinical, Counseling, and Community Psychology Credits: (5)
- PSY 449 - Abnormal Psychology Credits: (4)
- PSY 450 - Sensation and Perception Credits: (4)
- PSY 453 - Theories of Personality Credits: (5)
- PSY 456 - Industrial and Organizational Psychology Credits: (4)
- PSY 460 - Cognitive Psychology Credits: (5)
- PSY 478 - Behavioral Neuroscience Credits: (4)

Any upper-division psychology course can be used as an elective. Credits: (10-12)

In addition to the classes listed above, other 300 - and 400 -level psychology classes may also qualify for elective credit.

Total Credits: 30

College and Department Information

Psychology Department
College of the Sciences

## Science Education Department

College of the Sciences
Ellensburg
Science II, room 301
Mail Stop 7540
509-963-2929
www.cwu.edu/science-education
www.cwu.edu/teachstem/teach-stem
See the website for how these programs may be used for educational and career purposes.

## Faculty and Staff

Chair
Jennifer Dechaine, PhD

## Professors

Martha J. Kurtz, PhD, chemistry and science education
Bruce Palmquist, PhD , physics and science education
Ian J. Quitadamo, PhD, biological sciences and science education

## Associate Professor

Jennifer Dechaine, PhD, biological sciences and science education
Anne Egger, PhD, geological sciences and science education Vanessa Hunt, PhD, science education
Tim Sorey, PhD, chemistry and science education

## Assistant Professor

Adriano Cavalcanti, PhD , computer sciences and science education
Allyson Rogan-Klyve, PhD, science education

## Lecturer

Arthur Morken, MS, science education

## Staff

Rachel George, advisor and recruiter
Cori Totten, secretary supervisor

## Department Information

The primary function of the science education department is preparing people to teach science. Coursework in science pedagogy is offered for students in the Teacher Certification Programs as well as for teachers in the schools. The science education department works with science departments in the design and operation of degree programs for students who are preparing to teach in the secondary schools. We believe that students learn via the active construction of knowledge. To facilitate that process, all of our instruction follows the learning cycle model.

Our program seeks to help students become facilitators of learning in a diverse world. To that end, the science education department has the following goals for an effective science teacher:

- Demonstrate an ability to individually and collaboratively engage in inquiry and integrate the nature of science
- Explain and apply fundamental science content concepts, principles, and methods
- Demonstrate an ability to effectively facilitate learning for all students
- Create safe, effective learning environments that support inquiry, collaboration, intellectual risk-taking, ethical decision-making, and student construction of knowledge
- Demonstrate an ability to assess teaching and learning outcomes using multiple methods, effectively evaluate teaching and learning effectiveness, and improve practice based on reflection and data
- Demonstrate an ability to make science personally and socially relevant to individual and community by incorporating current events within collaborative and social networks
Students seeking endorsement for certification to teach a specialized science at the high school level must satisfactorily complete the teaching major within the specific science department. Students desiring to become middle or junior high
school specialized teachers of science are encouraged to obtain a teaching major in one or more of the following areas: biology, chemistry, Earth sciences, middle-level science or physics. All students are advised to work toward a second major or minor endorsement.

All students enrolled in science majors leading to certification are required to have an approved schedule on file with a science education advisor as early as possible and before endorsement for student teaching.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/science-education or by contacting the department directly.

## Science: Middle-Level Education, <br> BA

This major partially satisfies the criteria for a teaching endorsement in Middle-Level Science (4-9), qualifying students to teach science at the middle school or junior high levels. It may also be appropriate for students preparing to teach in informal science education settings, such as museums. Students who successfully complete the Science: Middle-Level Education, BA and STEM Teaching Program (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the middle-level science education advisor as soon as possible to develop a course of study.

## Admission Requirements

Mathematics competency equivalent to MATH 153
Note: Admission to the Teacher Certification Program is a separate process from admission to the major and is required for those pursuing public school teacher certification.

## Graduation Requirements

Note: See Teacher Certification Program graduation requirements for students pursuing public school teacher certification.

## Program Requirements

Candidates must have valid WSP and FBI fingerprint clearance and liability in order to complete any course that requires the candidate to be working with P -12th grade children on or off campus. The fingerprint clearance must be valid through the duration of the course. Fingerprint clearance must appear in the Office of Superintendent of Public Instruction (OSPI) Fingerprinting Database to be accepted.

For students pursuing public school teacher certification:

Successful completion of program portfolio required before student teaching.

Successful completion of the NES exam in middle grades general science and the edTPA required for teacher certification.

Required Courses Credits: 37-38

- SCED 101 - Integrated Life Science Credits: (5)
- CHEM 106 - Chemistry Inquiry Credits: (5)
- SCED 102 - Integrated Earth and Space Science Credits: (5)
- PHYS 101 - Introductory Astronomy I Credits: (5)
- OR PHYS 102 - Introduction to Astronomy Credits: (4)
- PHYS 106 - Physics Inquiry Credits: (5)
- SCED 311 - Science Concepts for Teachers Credits: (5)
- SCED 320 - Genetics and Cell Biology Concepts Credits: (5)
- SCED 354 - Science, Society and the Teaching Community Credits: (3)

Department-Approved Electives Credits: 7-8
Science content approved electives at the 300-level or higher. One can be a MATH course.

Total Credits: 45-46

College and Department Information

Science Education Department
College of the Sciences

## Science Education - Broad Area Science Teaching Minor

This minor is restricted to students working on a program aimed at teaching biology, chemistry, earth science, or physics. Science teaching majors must complete the appropriate courses in the three disciplines shown below that are outside their major. For example, a biology teaching major would need to fulfill the chemistry, earth science and physics requirements. Students interested in this minor need to see a science education advisor as soon as possible. This program may result in students taking more than four years to complete their degree. Students completing this minor are required to demonstrate knowledge, skill, and disposition proficiency of student learning outcomes through a program portfolio prior to student teaching. Students must pass the NES exam for General Science to receive the science endorsement.

Required Courses
(Complete all three areas not covered in major program)

- BIOL 181 - General Biology I Credits: (5)
- BIOL 182 - General Biology II Credits: (5)
- BIOL 183 - General Biology III Credits: (5)

Chemistry Credits: 15

- CHEM 181 - General Chemistry I Credits: (4)
- CHEM 181LAB - General Chemistry Laboratory I Credits: (1)
- CHEM 182-General Chemistry II Credits: (4)
- CHEM 182LAB - General Chemistry Laboratory II Credits: (1)
- CHEM 183 - General Chemistry III Credits: (4)
- CHEM 183LAB - General Chemistry Laboratory III Credits: (1)

Earth Science Credits: 13-14

- GEOL 101LAB - Introductory Geology Laboratory Credits: (1)
- GEOL 302 - Oceans and Atmosphere Credits: (4)

Select Either:

- GEOL 101 - Introduction to Geology Credits: (4)
- GEOL 103 - Geology of Washington Credits: (4)

Select Either:

- PHYS 101 - Introductory Astronomy I Credits: (5)
- PHYS 102 - Introduction to Astronomy Credits: (4)


## Physics Credits: 15

- PHYS 111 - Introductory Physics I with Laboratory Credits: (5)
- PHYS 112 - Introductory Physics II with Laboratory Credits: (5)
- PHYS 113- Introductory Physics III with Laboratory Credits: (5)
OR
- PHYS 181-General Physics I with Laboratory Credits: (5)
- PHYS 182-General Physics II with Laboratory Credits: (5)
- PHYS 183-General Physics III with Laboratory Credits: (5)

Total Credits: 43-45

College and Department Information

Science Education Department
College of the Sciences

This minor is open to students in any education major, as well as to other students as appropriate. This minor does not lead to an endorsement, but it will prepare students to be science leaders in the elementary school.

Required Courses

- SCED 101 - Integrated Life Science Credits: (5)
- SCED 102 - Integrated Earth and Space Science Credits: (5)
- SCED 103 - Integrated Physical Science Credits: (5)
- SCED 215 - STEM Outreach Field Experience Credits: (1-2) (Must be taken for 2 credits)
- OR STP 201 - Inquiry Approaches to Teaching Credits: (2)
- SCED 322 - Science Education in the Elementary School Credits: (4)
- OR ELEM 342-Teaching Elementary Science Inquiry Credits: (4)
- SCED 354 - Science, Society and the Teaching Community Credits: (3)
- SCED 422 - Advanced Teaching Strategies in Elementary Science Credits: (3)

Total Credits: 28

College and Department Information
Science Education Department
College of the Sciences

## STEM Teaching Program

The STEM Teaching Program prepares students to teach science, mathematics, or computer science at the middle school, junior high, or high school levels. To take the STEM Teaching Program, students must also be enrolled in one of the approved majors listed below. To qualify for the Washington State Residency Teaching Certificate, students must, in addition to successfully completing the STEM Teaching Program and their approved major degree, demonstrate proficiency in student learning outcomes through a program portfolio and pass the NES exam and the Teacher Performance Assessment (edTPA) in their endorsement area. Certification eligibility is monitored by the Teacher Certification Office in the School of Education. See the STEM Teaching Program advisor as soon as possible for more information and to develop a course of study.

## Approved major degrees:

Biology Major, BA or BS for endorsement in Biology (5-12)
Chemistry Major, BA or BS for endorsement in Chemistry (512)

Computer Science, BS for endorsement in Computer Science (K-12)

Geology Major, BA or BS for endorsement in Earth Science (512)

Physics Major, BA or BS for endorsement in Physics (5-12)
Mathematics: Secondary Education, BA for endorsement in Mathematics (5-12)

Mathematics: BS for endorsement in Mathematics (5-12)
Mathematics: Middle Level Education, BA for endorsement in Middle Level Mathematics (4-9)

Science: Middle Level Education, BA for endorsement in Middle Level Science (4-9)

## Admission Requirements

Full admittance to the Teacher Certification is required to enroll in STP 303 (Knowing and Learning).

## Graduation Requirements

- No grade lower than a C in major, minor and STEM Teaching Program courses
- Minimum GPA of 2.5 in major, minor and STEM Teaching Program courses
- Minimum GPA of 3.0 for last 45 graded quarter credits (the total may exceed 45 if an entire quarter is needed to achieve the minimum 45) or overall CWU/transfer cumulative.


## Program Requirements

- Fingerprint Clearance - Candidates must have valid WSP and FBI fingerprint clearance in order to complete any course that requires the candidate to be working with P-12th grade children on or off campus. The fingerprint clearance must be valid through the duration of the course. Fingerprint clearance must appear in the Office of Superintendent of Public Instruction (OSPI) Fingerprinting Database to be accepted.
- Liability Insurance

Required Courses

- EFC 480 - Student Teaching Credits: (16)
- STP 201 - Inquiry Approaches to Teaching Credits: (2)
- AND STP 202 - Inquiry Based Lesson Design Credits: (2)
- OR STP 300 - Inquiry Approaches to Teaching and Lesson Design Credits: (4)
- STP 303 - Knowing and Learning Credits: (4)
- STP 304 - Classroom Interactions 1 Credits: (4)
- STP 305 - Classroom Interactions 2 Credits: (4)
- STP 306 - Project-Based Instruction Credits: (3)
- STP 307A - Functions and Modeling for STEM Teaching Credits: (3)
- OR STP 307B - Functions and Modeling for Secondary Mathematics Credits: (3) OR
- STP 307C - Computer Science for STEM Teaching Credits: (3)
- STP 308 - Perspectives on Science, Mathematics and STEM Education Credits: (3)
- STP 309 - Research Methods Credits: (3)

Total Credits: 44

## Sociology Department

## College of the Sciences

Ellensburg
Farrell Hall, room 409
Mail Stop 7545
509-963-1305
Fax: 509-963-1308
www.cwu.edu/sociology
See website for how sociology may be used for educational and career purposes.

## Faculty and Staff <br> Chair

Eric Cheney, PhD

## Professors

Eric Cheney, PhD, deviance and social control, economic sociology, organizations, statistics and urban sociology Delores Cleary, PhD, criminology, the life-course, American society, minorities, ethnic studies, American Indian issues Judith Hennessy, PhD, social welfare and poverty, gender, sociology of work, sociology of family
Nelson Pichardo, PhD, ethnic studies, social movements

## Associate Professors

Michael Harrod, PhD, social psychology, criminology theory, intimate partner violence, statistics, research methods Pamela McMullin-Messier, PhD, demography, aging, collective action, social justice, environmental studies, family, gender, and sexuality
Michael Mulcahy, PhD, political sociology, political economy, organizations, theory

## Assistant Professors

Tracey Hoover, PhD, gender and identity, feminist movements and theory, family and socialization, and media
Sarah Samblanet, PhD, social inequality, statistics, gender
Griff Tester, PhD, gender, social inequality, aging, health
Baiqing (Cythnia) Zhang, PhD, criminology, statics

## Lecturers

Connie Robinson, PhD , historical sociology, political sociology, social movements, race, ethnicity and nation
Jessica Strawn, MA, criminology and communities, juvenile rehabilitation, social welfare

## Staff

Kelly Zakel-Larson, secretary supervisor

## Department Information

The Department of Sociology provides opportunities for students to understand the conceptual and methodological tools used by sociologists to understand society. Students will be encouraged to: 1) see society as concrete day-to-day behavior of human beings; 2) grasp the relationship between history, society, and the individual's life; 3) realize that social patterns are tools for the accomplishment of human ends and not necessarily
unalterable facts of life; and 4) develop the ability to critically analyze social phenomena.

## Department Standards

Students who major in sociology and social services are required to register with the department, at which time an advisor will be selected. In order to develop a program of study, students are required to meet once a quarter with their advisor. Further information on specific courses, the faculty, and career opportunities are available in the department office.

## Exit Requirements

Students are required to have a 2.3 cumulative grade point average for all majors.

## Honors in Sociology and

## Social Services

1. The sociology department's honors program is designed for students who wish to explore a particular research problem in depth.

## 2. Admission to the program

The student must:
(a) Have a 3.50 or higher cumulative GPA in sociology courses
(b) Be at least a junior
(c) Have a faculty member sponsorship; the faculty member would submit student's name to the department for admission

## 3. Requirements

The student is required to:
(a) Maintain a 3.5 or higher GPA in sociology coursework (including any approved outside electives) applied to the sociology degree
(b) Enroll in SOC 495 beginning fall quarter of the senior year (minimum of 10 credits over the course of that year)
(c) Complete a research project under the supervision of a faculty
(d) Participate in a public presentation of the research project (such as SOURCE, a professional conference, or other departmental-approved venues)
4.Those who fail to maintain a 3.5 GPA in the major, or who fail to participate in a public presentation will not receive honors.

## Sociology Core Requirements

Required Courses
SOC 107 - Principles of Sociology 5
SOC 350 - Social Theory I 5
SOC 363 - Methods of Social Research 5
SOC 364 - Data Analysis in Sociology 5
SOC 489 - Senior Seminar 1
Sociology Core Total Credits: 21

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the
department website: www.cwu.edu/sociology or by contacting the department directly.

## Sociology Major, BA (45 credits)

The Sociology major is an exciting discipline with expanding opportunities for a wide range of career paths. Sociology is a valuable liberal arts major for students planning careers in a wide variety of fields including social research, criminology, demography, social psychology, public administration, gerontology, education, social work and market research. It provides a useful background for those planning to enter law, business, medicine, community planning, and politics.

Students may choose either a 45 -credit major or a 60 -credit major.

## Graduation Requirement

In order to graduate, a student who completes the 45 -credit major must also have a minor or second major in another discipline.
(NOTE: Students admitted to the sociology major cannot also have a sociology minor, however, they may have a social services minor. Likewise, students admitted to the social services major cannot also have a social services minor, but they may have a sociology minor.)

Required Courses - Credits: 22

- SOC 107 - Principles of Sociology Credits: (5)
- SOC 300 - Introduction to the Major Credits: (1)
- SOC 350 - Social Theory I Credits: (5)
- SOC 363 - Methods of Social Research Credits: (5)
- SOC 364 - Data Analysis in Sociology Credits: (5)
- SOC 489 - Senior Seminar Credits: (1)

Select one course from each of the following categories Credits: 15

Deviance, Law and Social Control

- SOC 343 - Child Abuse Credits: (5)
- SOC 344 - Juvenile Delinquency Credits: (5)
- SOC 345 - Deviance Credits: (5)
- SOC 346 - Criminology Credits: (5)
- SOC 348 - Women and Crime Credits: (5)
- SOC 349 - Law and Society Credits: (5)
- SOC 352 - Punishment and Corrections Credits: (5)
- SOC 447 - White-collar and Organization Crime Credits: (5)

Inequality and Social Change

- SOC 325 - Aging Credits: (5)
- SOC 326 - Social Demography Credits: (5)
- SOC 354 - Minority Experience Credits: (5)
- OR ETS 354-Minority Experiences Credits: (5)
- SOC 356 - Sociology of Gender Credits: (5)
- SOC 358 - Sociology of Sexualities Credits: (5)
- SOC 359 - U.S. Feminist Movements Credits: (5)
- SOC 362 - Social Movements Credits: (5)
- SOC 365 - Minority Groups Credits: (5)
- SOC 366 - Sociology of American Indians Credits: (5)
- SOC 370 - Social Change Credits: (5)
- SOC 371 - Globalization Credits: (5)
- SOC 375 - Sociology of Conflict Credits: (5)
- SOC 382 - Sociology of the Future Credits: (5)
- SOC 386 - Seminar on Racism Credits: (5)
- SOC 415 - Urban Sociology Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- SOC 445 - Social Inequality Credits: (5)
- SOC 446 - Sociology of Immigration Credits: (5)

Social Structure and Institutions

- SOC 307 - Individual and Society Credits: (5)
- SOC 320 - Death and Dying Credits: (5)
- SOC 327 - Health and Society Credits: (5)
- SOC 331 - Sociology of Sport Credits: (5)
- SOC 338 - Political Sociology Credits: (5)
- SOC 351 - Sociology of Work Credits: (5)
- SOC 357 - Sociology of Families Credits: (5)
- SOC 367 - Sociology of Religion Credits: (5)
- SOC 376 - Sociology of the Military and Veterans in U.S. Society Credits: (5)
- SOC 380 - Social Ecology Credits: (5)
- SOC 425 - Sociology of Education Credits: (5)
- SOC 459 - Organizations Credits: (5)

Department-Approved Electives - Credits: 8

Any upper-division 300- or 400- level sociology course.

Total Credits: 45

College and Department Information

Sociology Department
College of the Sciences

## Sociology Major, BA (60 credits)

A sociology major provides many distinctive perspectives on the world, generating new ideas and critiquing the old. Sociology addresses the most pressing issues of our time and is a rapidly expanding field whose potential is increasingly tapped by those who craft policies and create programs. Sociologists understand social inequality, patterns of behavior, forces for social change and resistance, and how social systems work. Sociology is an exciting discipline with expanding opportunities for a wide range of career paths and is a valuable liberal arts major for many career paths.

Students may choose either a 45 -credit major or a 60 -credit major. In order to graduate, a student who completes the 45credit major must also have a minor or second major in another discipline.
(NOTE: Students admitted to the sociology major cannot also have a sociology minor; however, they may have a social services minor. Likewise, students admitted to the social services major cannot also have a social services minor, but they may have a sociology minor.)

Required Courses - Credits: 22

- SOC 107 - Principles of Sociology Credits: (5)
- SOC 300 - Introduction to the Major Credits: (1)
- SOC 350 - Social Theory I Credits: (5)
- SOC 363 - Methods of Social Research Credits: (5)
- SOC 364 - Data Analysis in Sociology Credits: (5)
- SOC 489 - Senior Seminar Credits: (1)

Select at least one course from each of the following categories Credits: 15

Deviance, Law and Social Control

- SOC 343 - Child Abuse Credits: (5)
- SOC 344 - Juvenile Delinquency Credits: (5)
- SOC 345 - Deviance Credits: (5)
- SOC 346 - Criminology Credits: (5)
- SOC 348 - Women and Crime Credits: (5)
- SOC 349 - Law and Society Credits: (5)
- SOC 352 - Punishment and Corrections Credits: (5)
- SOC 447 - White-collar and Organization Crime Credits: (5)

Inequality and Social Change

- SOC 325 - Aging Credits: (5)
- SOC 326 - Social Demography Credits: (5)
- SOC 354 - Minority Experience Credits: (5)
- OR ETS 354 - Minority Experiences Credits: (5)
- SOC 356 - Sociology of Gender Credits: (5)
- SOC 358 - Sociology of Sexualities Credits: (5)
- SOC 359 - U.S. Feminist Movements Credits: (5)
- SOC 362 - Social Movements Credits: (5)
- SOC 365 - Minority Groups Credits: (5)
- SOC 366 - Sociology of American Indians Credits: (5)
- SOC 370 - Social Change Credits: (5)
- SOC 371 - Globalization Credits: (5)
- SOC 375 - Sociology of Conflict Credits: (5)
- SOC 382 - Sociology of the Future Credits: (5)
- SOC 386 - Seminar on Racism Credits: (5)
- SOC 415 - Urban Sociology Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- SOC 445 - Social Inequality Credits: (5)
- SOC 446 - Sociology of Immigration Credits: (5)

Social Structure and Institutions

- SOC 307 - Individual and Society Credits: (5)
- SOC 320 - Death and Dying Credits: (5)
- SOC 327 - Health and Society Credits: (5)
- SOC 331 - Sociology of Sport Credits: (5)
- SOC 338 - Political Sociology Credits: (5)
- SOC 351 - Sociology of Work Credits: (5)
- SOC 357 - Sociology of Families Credits: (5)
- SOC 367 - Sociology of Religion Credits: (5)
- SOC 376 - Sociology of the Military and Veterans in U.S. Society Credits: (5)
- SOC 380 - Social Ecology Credits: (5)
- SOC 425 - Sociology of Education Credits: (5)
- SOC 459 - Organizations Credits: (5)

Department-Approved Electives - Credits: 23
A maximum of 5 credits of 100 -level electives and up to 5 credits of 200-level electives may be counted toward the major. PSY 363, Intermediate Statistics and Research Methods are an approved elective.

Total Credits: 60

College and Department Information
Sociology Department
College of the Sciences

## Social Services Major, BS

The social service major is designed for students interested in working in the human services delivery systems. Students are required to have a strong grounding in sociology as well as the applied field of social services. The coursework introduces students to critical issues in the field and offers students the opportunity to work within agencies in the community.

The major requirements are such that students are encouraged to organize their program of study to include a minor in an area of interest or specialization outside of sociology. Some areas that fit well with this major include psychology, ethnic studies, family studies, gerontology, women's studies, community health, and the like.

## Sociology Required Courses Credits: 22

***SOC 107 is a prerequisite for SOC 350 and SOC 445.

- SOC 107 - Principles of Sociology Credits: (5)
- SOC 300 - Introduction to the Major Credits: (1)
- SOC 350 - Social Theory I Credits: (5)
- SOC 363 - Methods of Social Research Credits: (5)
- SOC 364 - Data Analysis in Sociology Credits: (5)
- SOC 489 - Senior Seminar Credits: (1)

[^12]- SOC 301 - Introduction and History of Social Service Agencies Credits: (5)
- SOC 310 - Social Service Methods and Casework Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- SOC 445 - Social Inequality Credits: (5)
- SOC 490 - Cooperative Education Credits: (1-12) (Must be taken for 4 credits.)

Department-Approved Electives Credits: 20
Choose 20 credits of upper-division sociology electives.
***Additional credits in SOC 490 may count towards graduation.

- SOC 320 - Death and Dying Credits: (5)
- SOC 325 - Aging Credits: (5)
- SOC 327 - Health and Society Credits: (5)
- SOC 343 - Child Abuse Credits: (5)
- SOC 344 - Juvenile Delinquency Credits: (5)
- SOC 354 - Minority Experience Credits: (5)
- SOC 356 - Sociology of Gender Credits: (5)
- SOC 357 - Sociology of Families Credits: (5)
- SOC 365 - Minority Groups Credits: (5)
- SOC 376 - Sociology of the Military and Veterans in U.S. Society Credits: (5)
- SOC 386 - Seminar on Racism Credits: (5)
- SOC 415 - Urban Sociology Credits: (5)
- SOC 425 - Sociology of Education Credits: (5)
- SOC 446 - Sociology of Immigration Credits: (5)
- SOC 460 - Community Structure and Organization Credits: (5)

Total Credits: 66

College and Department Information

Sociology Department
College of the Sciences

## Ethnic Studies Minor

Ethnic studies is a minor offered by the Sociology department that explores the multiple issues associated with race/ethnicity in the U.S. The central mission is to increase the understanding of the history and dynamics of race/ethnicity to prepare students for working in and interacting with an increasingly diverse and globalized world. Minor offers classes exploring the concept of race, the experiences of various racial/ethnic groups in the U.S. as well as whiteness studies.

## Required Courses Credits:15

- ETS 354 - Minority Experiences Credits: (5)
- OR SOC 354 - Minority Experience Credits: (5)
- OR SOC 365 - Minority Groups Credits: (5)
- SOC 109- Social Construction of Race Credits: (5)
- SOC 386 - Seminar on Racism Credits: (5)

Ethnic Studies Courses Credits: 3-6

Department-Approved Electives Credits: 9-15
Total Credits: 27-36

College and Department Information

Sociology Department
College of the Sciences

## Social Services Minor

(NOTE: Students admitted to the sociology major cannot also have a sociology minor, however, they may have a social services minor. Likewise, students admitted to the social services major cannot also have a social services minor, but they may have a sociology minor.)

## Required Courses

- Electives in Sociology Credits: (15)

SOC 490, Cooperative Education, and SOC 496, Individual Study, do not count toward the minor. A maximum of 5 credits of elective lowerdivision coursework may be counted toward the minor.

- SOC 301 - Introduction and History of Social Service Agencies Credits: (5)
- SOC 310 - Social Service Methods and Casework Credits: (5)
- SOC 442 - Social Welfare Policy Credits: (5)
- OR SOC 460 - Community Structure and Organization Credits: (5)

Total Credits: 30

College and Department Information

Sociology Department
College of the Sciences

## Sociology Minor

## Required Courses

- Upper-division electives in Sociology - Credits: 20 SOC 490, Cooperative Education, and SOC 496, Individual Study, do not count toward the minor. With advisor approval, a maximum of 5 credits of elective lower-division coursework may be counted toward the minor.
- SOC 107 - Principles of Sociology Credits: (5)

College and Department Information

Sociology Department
College of the Sciences

## STEP (Science Talent Expansion Program)

College of the Sciences
Ellensburg
Dean Hall 130
509-963-3002
Mail Stop 7519
www.cwu.edu/step

## Contact

Toni Snowden
STEP Coordinator
STEP@cwu.edu

The Science Talent Expansion Program (STEP) is an innovative program designed to prepare and retain students in majors and careers in science, technology, engineering, and mathematics (STEM) fields. STEP consists of an integrated sequence of classes, enrichment activities, and student research opportunities through which students gain hands-on experience in modern scientific research methods, explore theme-based interdisciplinary scientific issues, and develop mentoring relationships with CWU STEM faculty.

Application to STEP is open to new freshman and transfer students with an interest in and aptitude for STEM fields.

STEP freshman participate in a three-quarter-long series of courses known as the STEP Freshman Science Seminar (STEP 101, STEP 102, and STEP 103). Completion of these three courses satisfies one of the Natural Sciences General Education Program requirements. Students who successfully complete the STEP Freshman Science Seminar series will be eligible to apply for and participate in the STEP Sophomore Bridging Program. The STEP Sophomore Bridging Program provides the opportunity for students in their sophomore year to participate in undergraduate research or serve as a Teaching Assistant in various STEM courses. Those students who have already had some college-level experience are invited to apply directly to the STEP Transfer Bridging Program and will take two STEP courses, STEP 301 in the fall and STEP 302 in the winter. Upon completion of these courses, transfer students will have the opportunity to apply for positions in the STEP Transfer Bridging Program.

The Science Talent Expansion Program at CWU involves faculty members from several academic departments: Anthropology; Biological Sciences; Chemistry; Computer Science; Geography; Geological Science; Engineering Technologies, Safety, and Construction Management; Mathematics; and Physics. More information about the program
and participating faculty members is available on the STEP website.

## Program Outcomes

For information on program outcomes, please go
to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/step or by contacting the department directly.

## Theatre Arts Department

College of Arts and Humanities
Ellensburg
McConnell Hall, room 102
Mail Stop 7460
509-963-1750
Fax: 509-963-1767
e-mail: theatre@cwu.edu
www.cwu.edu/theatre
See the website for how this program may be used for educational and career purposes.

## Faculty and Staff

Interim Chair
Christina Barrigan, MFA

## Professor

Michael J. Smith, MFA, head of performance, dialect, acting for the camera

## Associate Professors

Christina Barrigan, MFA, head of design, resident lighting designer
George W. Bellah, 3rd, MFA, movement, performance, stage combat, Asian drama
Terri Brown, PhD, head of music theatre, history, literature and music theatre
David Brown, MM, musical director, music theory
Marc Haniuk, MFA, resident scenic designer

## Assistant Professors

Patrick Dizney, MFA, voice, performance
Emily Rollie, PhD, theatre studies/education

## Senior Lecturer

Jerry Dougherty, MFA, stage and production management

## Lecturers

David Barnett, MFA, McConnell stage manager, scene shop manager, technical director
Meredith Magoun, MFA, costume design and technology
M. Catherine McMillen, BA, costume shop manager, wigs and makeup
Ligon, Nick, MFA, lighting shop manager
Lindsey, Natashia, PhD, dramaturg/history/literature
Esquivel, Ramón, MFA, theatre education/playwriting
Joseph Sasnett, BFA, voice instructor
Megan Smith, BFA, dance instructor, choreographer
Jason Tucholke, MFA, sound design and technology

## Staff

Manuel Bonilla, fiscal technician II
Mary Makins, secretary senior

## Department Information

The Department of Theatre Arts offers comprehensive study in the varied facets of theatre arts as they relate to theatre production. Coursework prepares students for rigorous and rewarding work within Central Theatre Ensemble (CTE), the production arm of the program, leading to professional work in the entertainment industry. Based on a professional model of theatre, CTE offers students the opportunity to thrive in all aspects of theatre production in a safe and mentoring environment, working in state-of-the-art venues supported by fully equipped shops and studios.

## Admission Requirements

A cumulative grade point average of 2.7 (B-) in the pre-major required courses must be achieved with a minimum grade of "C+" (2.3) in each course. The applicant must have earned a minimum cumulative GPA of 2.0 in all other collegiate study.

Pre-major required courses:

- TH 107 - Introduction to Theatre Credits: (4)
- TH 144 - Foundations of Acting Credits: (3)
- TH 166 - Theory of Play Production Credits: (3)


## BFA Specializations

Admission to the BFA is by audition/interview only.
Auditions/interviews are held each year, in late February and early March. See the Auditions Procedures Page www.cwu.edu/theatre/node/2479/\#8.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/theatre or by contacting the department directly.

## Theatre Studies, BA

A perfect choice for the theatre artist, the Theatre Studies, BA allows for advanced study in a variety of areas allowing students to become a well-rounded theatre artist who can go on to a focused study in graduate school or a variety of careers in the field. The theatre studies degree is also a great choice for the student who has a number of interests and needs the flexibility to explore several options.

The Department of Theatre Arts offers students a variety of emphasis areas to choose from to ensure that each participant receives specialized attention in the theatre discipline of their choice. By focusing on an emphasis, students can build skills and acquire the training to build strong resumes and portfolios in order to pursue professional jobs or advanced degrees.

## Admission Requirements

Students applying to the major must submit a major application form.

## Theatre Arts Core Requirements

The Theatre Arts programs are designed to prepare knowledgeable, skilled graduates who will successfully compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist, and beyond. They will understand how to use the skills they develop in other career paths related to their degree.

## Admission Requirements

BA students apply directly to the department through the onestep online application, after admitted to the institution. No audition is required.

- For a student new to the institution: The theatre arts application should be completed following admission to the university, and one week prior to enrolling in courses.
- For a continuing CWU student: The theatre arts application can be competed at any time.
BFA students audition/interview through our online prescreening web-based program, GetAcceptd.com. Information on the audition/interview process can be found at the department website.

Students seeking a theatre minor apply directly to the department through the one-step online application, after enrollment at the institution.

Theatre Arts Core Requirements
Students in all theatre arts programs must earn a grade of "C+" (2.3) or higher in Theatre Arts Core Requirement courses.

- TH 107 - Introduction to Theatre Credits: (4)
- TH 166 - Theory of Play Production Credits: (3)
- TH 363 - Theatre History I Credits: (4)
- TH 364 - Theatre History II Credits: (4)
- TH 365 - Theatre History III Credits: (4)

Lab Component - Credits: 4

All theatre students completing programs which share the Theatre Arts Core Requirements are required to complete at least four (4) lab assignments.

Complete four (4) credits of the following:

- TH 393 - Theatre Laboratory Credits: (1)
- TH 493 - Theatre Laboratory Credits: (1)

Production Component - Credits: 3
All theatre majors are required to complete at least one backstage assignment.

Choose one from the following:

- TH 301 - Production Application Credits: (3)
- TH 401 - Production Application Credits: (3)

Theatre Arts Core Total Credits: 26

Required Courses Credits: 18

- TH 144 - Foundations of Acting Credits: (3)
- TH 261 - Costume Technology Credits: (3)
- TH 267 - Scene Technology Credits: (3)
- TH 268 - Lighting Technology Credits: (3)
- TH 488 - Introduction to Dramaturgy Credits: (3)
- TH 495 - Senior Research Project Credits: (3)

Choose any of the following for a total of 8 credits:

- TH 375 - Asian Drama Credits: (4)
- TH 377 - Staging Gender Credits: (4)
- TH 380 - Studies in Drama Credits: (5)
- TH 382 - Diverse Experiences in American Drama Credits: (4)

Choose any of the following for a total of 3 credits:

- TH 140 - Introduction to Theatre Design Credits: (3)
- TH 145 - Foundations of Acting II Credits: (3)
- TH 329 - Directing I Credits: (3)
- TH 360 - Stage Management Credits: (3)

Choose any of the following for a total of 9 credits:

- TH 201 - Dance Production Application Credits: (13)
- TH 202 - Performance Studio Credits: (1-3)
- TH 301 - Production Application Credits: (3)
- TH 302 - Performance Application Credits: (3)
- TH 303 - Management Application Credits: (3)
- TH 401 - Production Application Credits: (3)
- TH 402 - Performance Application Credits: (3)
- TH 403 - Management Application Credits: (3)


## Department-Approved Electives Credits: 11

Total Credits: 75

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## Musical Theatre, BFA

The Musical Theatre, BFA program is designed to prepare knowledgeable, skilled graduates who will compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist. They will also understand how to use the skills they have developed in other career paths related to their degree.

## Admission Requirements

Admission to the program is by audition/interview only. Auditions/interviews begins with an online screening process that culminates in program admission being offered in early spring for the fall cohort.

See the Auditions Procedures
Page http://www.cwu.edu/theatre/auditions.

## Program Requirements

In addition to the department core courses, Musical Theatre
BFA candidates must maintain a cumulative GPA of 3.0 in
Theatre Arts with a minimum grade of "B-" (2.7) in each course within Musical Theatre.

Meeting this standard is reviewed as part of the annual jury.
Theatre Arts Core Requirements
The Theatre Arts programs are designed to prepare knowledgeable, skilled graduates who will successfully compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist, and beyond. They will understand how to use the skills they develop in other career paths related to their degree.

## Admission Requirements

BA students apply directly to the department through the onestep online application, after admitted to the institution. No audition is required.

- For a student new to the institution: The theatre arts application should be completed following admission to the university, and one week prior to enrolling in courses.
- For a continuing CWU student: The theatre arts application can be competed at any time.

BFA students audition/interview through our online prescreening web-based program, GetAcceptd.com. Information on the audition/interview process can be found at the

## department website.

Students seeking a theatre minor apply directly to the department through the one-step online application, after enrollment at the institution.

Theatre Arts Core Requirements
Students in all theatre arts programs must earn a grade of "C+" (2.3) or higher in Theatre Arts Core Requirement courses.

- TH 107 - Introduction to Theatre Credits: (4)
- TH 166 - Theory of Play Production Credits: (3)
- TH 363 - Theatre History I Credits: (4)
- TH 364 - Theatre History II Credits: (4)
- TH 365 - Theatre History III Credits: (4)

Lab Component - Credits: 4

All theatre students completing programs which share the Theatre Arts Core Requirements are required to complete at least four (4) lab assignments.

Complete four (4) credits of the following:

- TH 393 - Theatre Laboratory Credits: (1)
- TH 493 - Theatre Laboratory Credits: (1)

Production Component - Credits: 3
All theatre majors are required to complete at least one backstage assignment.

Choose one from the following:

- TH 301 - Production Application Credits: (3)
- TH 401 - Production Application Credits: (3)

Theatre Arts Core Total Credits: 26

## Musical Theatre

The musical theatre builds specific skills in production from a strong foundation of using the body as the artist's instrument through singing, voice, and stage movement in the musical theatre style. Students choose from a range of courses, both introductory and advanced, from writing and movement, dancing, and voice. To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490 Cooperative Education internship as well as the performance application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

## Grade Requirement

A minimum grade of "B-" (2.7) in each course within Musical Theatre is required.

## Required Courses Credits: 63

## Acting Requirements

- TH 244 - Basic Acting I Credits: (3)
- TH 245 - Basic Acting II Credits: (3)
- TH 246 - Basic Acting III Credits: (3)
- TH 344 - Intermediate Acting I Credits: (3)

Career and Development Requirement

- TH 489 - Career \& Portfolio Preparation Credits: (3) Directing Requirement
- TH 329 - Directing I Credits: (3)

History and Literature Requirements

- TH 415 - Musical Theatre History and Literature I Credits: (3)
- TH 416 - Musical Theatre History and Literature II Credits: (3)


## Musical Requirements

- TH 115 - Class Piano I Credits: (1)
- TH 116 - Class Piano II Credits: (1)
- TH 117 - Class Piano III Credits: (1)
- TH 215 - Music Fundamentals I Credits: (3)
- TH 216 - Music Fundamentals II Credits: (3)
- TH 217 - Music Fundamentals III Credits: (3) Technical Requirements
- TH 161 - Intro to Technology 1: Costumes and Makeup Credits: (3)
- TH 162 - Intro to Technology 2: Scenery and Lighting Credits: (3) Vocal Requirements
- TH 143 - Private Voice Lessons Credits: (1-4) (repeated each quarter for residency at least 9 credits)
- TH 148 - Actor Conditioning - Monologue Credits: (1)
- TH 243 - Singing for Actors Credits: (1) (must be repeated for 3 credits)
- TH 248 - Vocal Conditioning for the Actor Credits: (1)
- TH 249 - Vocal Conditioning for the Actor II Credits: (1)
- TH 343 - Singing for Actors II Credits: (1) (must be repeated for 6 credits)

Movement Component - Credits: 12

Choose any of the following for a minimum of 12 credits.

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 104 - Ballet Technique I Credits: (2)
- DNCE 121 - Tap Dance I Credits: (1)
- DNCE 141 - Jazz Dance I Credits: (1)
- DNCE 142 - Jazz Dance II Credits: (1)
- DNCE 204 - Ballet Technique II Credits: (2)
- PEID 145 - Beginning Circus Arts Credits: (1)
- TH 252 - Stage Dance Credits: (1)
- TH 333 - Stage Combat Fundamentals Credits: (3)
- TH 335 - Movement for the Actor Credits: (3)
- TH 352 - Stage Dance II Credits: (2)
- TH 433 - Advanced Stage Combat Credits: (3)

Performance Component - Credits: 9
Repeat any of the following for a minimum of 9 credits.

- TH 202 - Performance Studio Credits: (1-3)
- TH 302 - Performance Application Credits: (3)
- TH 402 - Performance Application Credits: (3)

Musical Theatre Credits: 84
Total Credits: 110

College and Department Information

## Theatre Design and Production, BFA

The Theatre Design and Production BFA program is designed to prepare knowledgeable, skilled graduates who will compete in an increasingly competitive field. Students will learn to assess, explain, and interpret the many roles and responsibilities inherent to the world of the professional theatre artist. They will also understand how to use the skills they have developed in other career paths related to their degree.

## Admission Requirements

Admission to the program is by audition/interview only. Auditions/interviews begins with an online screening process that culminates in program admission being offered in early spring for the fall cohort.

## See the Auditions Procedures

Page http://www.cwu.edu/theatre/auditions.

## Program Requirements

In addition to the department core courses, Design and Production BFA candidates must maintain a cumulative GPA of 3.0 in Theatre Arts with a minimum grade of "B-" (2.7) in each course within the Design and Production core courses.

Meeting this standard is reviewed as part of the annual jury.

## Theatre Arts Core Requirements

The Theatre Arts programs are designed to prepare knowledgeable, skilled graduates who will successfully compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist, and beyond. They will understand how to use the skills they develop in other career paths related to their degree.

## Admission Requirements

BA students apply directly to the department through the onestep online application, after admitted to the institution. No audition is required.

- For a student new to the institution: The theatre arts application should be completed following admission to the university, and one week prior to enrolling in courses.
- For a continuing CWU student: The theatre arts application can be competed at any time.
BFA students audition/interview through our online prescreening web-based program, GetAcceptd.com. Information on the audition/interview process can be found at the department website.

Students seeking a theatre minor apply directly to the department through the one-step online application, after enrollment at the institution.

Theatre Arts Core Requirements

Students in all theatre arts programs must earn a grade of "C+"
(2.3) or higher in Theatre Arts Core Requirement courses.

- TH 107 - Introduction to Theatre Credits: (4)
- TH 166 - Theory of Play Production Credits: (3)
- TH 363 - Theatre History I Credits: (4)
- TH 364 - Theatre History II Credits: (4)
- TH 365 - Theatre History III Credits: (4)

Lab Component - Credits: 4
All theatre students completing programs which share the Theatre Arts Core Requirements are required to complete at least four (4) lab assignments.

Complete four (4) credits of the following:

- TH 393 - Theatre Laboratory Credits: (1)
- TH 493 - Theatre Laboratory Credits: (1)

Production Component - Credits: 3

All theatre majors are required to complete at least one backstage assignment.

Choose one from the following:

- TH 301 - Production Application Credits: (3)
- TH 401 - Production Application Credits: (3)

Theatre Arts Core Total Credits: 26

Design and Production
The design and production builds specific skills in production from a strong foundation of general knowledge of technical theatre and the design aspect of theatre. Students choose from a range of courses, both introductory and advanced from writing and drawing, construction, and sewing.

To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490 - Cooperative Education (internship) as well as the production application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

Required Courses Credits: 30

- TH 140 - Introduction to Theatre Design Credits: (3)
- TH 144 - Foundations of Acting Credits: (3)
- TH 261 - Costume Technology Credits: (3)
- TH 266 - Theatre Drafting Credits: (3)
- TH 267 - Scene Technology Credits: (3)
- TH 268 - Lighting Technology Credits: (3)
- TH 360 - Stage Management Credits: (3)
- TH 366 - Theatre Rendering Credits: (3)
- TH 489 - Career \& Portfolio Preparation Credits: (3)
- TH 495 - Senior Research Project Credits: (3)


## Literature Component - Credits: 8

Choose any of the following for a minimum of 8 credits.

- TH 375 - Asian Drama Credits: (4)
- TH 377 - Staging Gender Credits: (4)
- TH 380 - Studies in Drama Credits: (5)
- TH 382 - Diverse Experiences in American Drama Credits: (4)
- TH 488 - Introduction to Dramaturgy Credits: (3)

Production Component - Credits: 15
Choose any of the following for a minimum of 15 credits.

- ATM 381 - Fashion Show Production Credits: (2)
- TH 201 - Dance Production Application Credits: (13)
- TH 301 - Production Application Credits: (3)
- TH 303 - Management Application Credits: (3)
- TH 393 - Theatre Laboratory Credits: (1)
- TH 401 - Production Application Credits: (3)
- TH 403 - Management Application Credits: (3)
- TH 490 - Cooperative Education Credits: (1-12)
- TH 492 - Practicum in Devising and Touring Theatre Credits: (3-12)
- TH 493 - Theatre Laboratory Credits: (1)

Core Skills Component - Credits: 3
Choose any of the following for a minimum of 3 credits.

- ART 150 - Introduction to Drawing Credits: (3)
- TH 215 - Music Fundamentals I Credits: (3)
- TH 465 - Costume and Fashion Drawing Credits: (3)

Area Skills Component - Credits: 12
Choose from the following for a minimum of 12 credits.

- COM 207 - Introduction to Human Communication Credits: (5)
- COM 251 - Small Group Dynamics Credits: (4)
- EMS 245 - Advanced First Aid and Emergency Response Credits: (3)
- ATM 355 - Consumer Textiles Credits: (4)
- ETSC 160 - Computer-Aided Design and Drafting

Credits: (4)

- ETSC 161 - Architectural Computer Aided Design Credits: (3)
- TH 270 - Stage Makeup Credits: (3)
- TH 353 - Stage Properties Credits: (3)
- TH 354 - Scene Painting Credits: (3)
- TH 356 - Stage Sound Credits: (3)
- TH 357 - Entertainment Rigging Credits: (3)
- TH 362 - Costume Crafts Credits: (3)
- TH 464 - Wig Creation, Styling, and Maintenance Credits: (3)

History/Writing Component - Credits: 6

Choose any of the following for a minimum of 6 credits.

- ADMG 385 - Business Communications and Report Writing Credits: (5)
- ART 235 - Ancient and Medieval Art Credits: (3)
- ART 236 - Renaissance through Mid-19th-century Art Credits: (3)
- ART 237-Impressionism through Postmodernism Credits: (3)
- ENG 310 - Technical Writing Credits: (4)
- ATM 452 - History of Fashion Credits: (4)
- TH 452 - History of Fashion Credits: (4)

Intermediate Skills Component - Credits: 6
Choose any of the following for a minimum of 6 credits.

- HRM 381 - Management of Human Resources Credits: (5)
- MGT 380 - Organizational Management Credits: (5)
- TH 361 - Stage Costuming Credits: (3)
- TH 367 - Stage Scenery Credits: (3)
- TH 368 - Stage Lighting Credits: (3)

Advanced Skills Component - Credits: 4

Choose any of the following for a minimum of 4 credits.

- TH 456 - Advanced Concepts in Sound for Film and Stage Credits: (4)
- TH 460 - Production Management Credits: (4)
- TH 461 - Costume Design Credits: (4)
- TH 467 - Scene Design Credits: (4)
- TH 468 - Lighting Design Credits: (4)

Design and Production Total Credits: 84

Total Credits: 110

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## Theatre Education, BFA

The BFA program is designed to prepare knowledgeable, skilled graduates who will compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the educational theatre artist. They will also understand how to use the skills they have developed in other career paths related to their degree.

This major satisfies the Washington State endorsement standards for Theatre. For marketability students should have a
minor leading to endorsement in an additional subject area. This pre-professional training program includes the Professional Education Program and full admission to the teacher certification program offered through the School of Education.

## Admission Requirements

Student will be admitted through a comprehensive application process at the sophomore level (after reaching 45 credits), or higher, and must have a minimum cumulative GPA of 3.0 in all collegiate work.

Student must also meet the standards for full admission to the School of Education Professional Education Program.

## Graduation Requirements

A passing score on each section of the Washington Educator Skills Test - Basic (WEST-E) for Theatre.

## Program Requirements

BFA candidates must maintain a cumulative GPA of 3.0 in Theatre Arts with a minimum grade of "B-" (2.8) in each course.

Student must also meet the standards for full admission to the School of Education Professional Education Program.

Theatre Endorsement Component Areas
The Theatre Education BFA curriculum is designed to not only meet state endorsement standards for Theatre but will provide one of the strongest teacher candidate preparation programs in the state. This pre-professional training program will prepare students for careers in K-12 as well as educational programming with regional theatres.

## Basic Skills Component Credits: 32

- TH 107 - Introduction to Theatre Credits: (4)
- TH 140 - Introduction to Theatre Design Credits: (3)
- TH 144 - Foundations of Acting Credits: (3)
- OR TH 244 - Basic Acting I Credits: (3)
- TH 166 - Theory of Play Production Credits: (3)
- TH 278 - Creative Drama in the Classroom Credits: (3)
- TH 329 - Directing I Credits: (3)
- TH 330 - Introduction to Playwriting Credits: (4)
- TH 378 - Theatre Facilities Management Credits: (3)
- TH 423 - Theatre Pedagogy Credits: (3)
- TH 488 - Introduction to Dramaturgy Credits: (3)


## History Component Credits: 4

Complete any of the following for a total of four (4) credits.

- TH 363 - Theatre History I Credits: (4)
- TH 364 - Theatre History II Credits: (4)
- TH 365 - Theatre History III Credits: (4)


## Lab Component Credits: 3

Complete any of the following for a total of three (3) credits.

- TH 393 - Theatre Laboratory Credits: (1)
- TH 493 - Theatre Laboratory Credits: (1)

Literature Component Credits: 4
Complete any of the following for at least four (4) credits.

- TH 375 - Asian Drama Credits: (4)
- TH 377 - Staging Gender Credits: (4)
- TH 380 - Studies in Drama Credits: (5)
- TH 382 - Diverse Experiences in American Drama Credits: (4)

Production Requirement Credits: 3
Complete one from the following for three (3) credits.

- TH 301 - Production Application Credits: (3)
- TH 401 - Production Application Credits: (3)

Production Component Credits: 3

Complete any additional production course(s) for three (3) credits.

- TH 201 - Dance Production Application Credits: (13)
- TH 202 - Performance Studio Credits: (1-3)
- TH 301 - Production Application Credits: (3)
- TH 302 - Performance Application Credits: (3)
- TH 303 - Management Application Credits: (3)
- TH 401 - Production Application Credits: (3)
- TH 402 - Performance Application Credits: (3)
- TH 403 - Management Application Credits: (3)
- TH 492 - Practicum in Devising and Touring Theatre Credits: (3-12)

Technology Component Credits: 9
Choose any of the following for at least nine (9) credits.

- TH 256 - Sound and Mixing - Aesthetics and Essentials Credits: (3)
- TH 261 - Costume Technology Credits: (3)
- TH 267 - Scene Technology Credits: (3)
- TH 268 - Lighting Technology Credits: (3)
- TH 270 - Stage Makeup Credits: (3)


## Total Credits: 58

Professional Education Program Credits: 50

Professional Education Program

Total Credits: 108
College and Department Information

## Theatre Performance, BFA

The performance program builds specific skills in production from a strong foundation of using the body as the artist's instrument through acting styles, voice, and stage movement. Students choose from a range of courses, both introductory and advanced, from writing and dancing, to stage and screen.

To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490: Cooperative Education (Internship), as well as the production application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

## Admission Requirements

Admission to the program is by audition/interview only. Auditions/interviews begins with an online screening process that culminates in program admission being offered in early spring for the fall cohort.

See the Auditions Procedures Page www.cwu.edu/theatre/auditions.

## Program Requirements

In addition to the department core courses requirements, Performance BFA candidates must maintain a cumulative GPA of 3.0 in Theatre Arts with a minimum grade of "B-" (2.7) in each course within the Performance core courses.

Meeting this standard is reviewed as part of the annual jury.

## Theatre Arts Core Requirements

The Theatre Arts programs are designed to prepare knowledgeable, skilled graduates who will successfully compete in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist, and beyond. They will understand how to use the skills they develop in other career paths related to their degree.

## Admission Requirements

BA students apply directly to the department through the onestep online application, after admitted to the institution. No audition is required.

- For a student new to the institution: The theatre arts application should be completed following admission to the university, and one week prior to enrolling in courses.
- For a continuing CWU student: The theatre arts application can be competed at any time.
BFA students audition/interview through our online prescreening web-based program, GetAcceptd.com. Information on the audition/interview process can be found at the department website.

Students seeking a theatre minor apply directly to the department through the one-step online application, after enrollment at the institution.

Theatre Arts Core Requirements

Students in all theatre arts programs must earn a grade of "C+" (2.3) or higher in Theatre Arts Core Requirement courses.

- TH 107 - Introduction to Theatre Credits: (4)
- TH 166 - Theory of Play Production Credits: (3)
- TH 363 - Theatre History I Credits: (4)
- TH 364 - Theatre History II Credits: (4)
- TH 365 - Theatre History III Credits: (4)

Lab Component - Credits: 4
All theatre students completing programs which share the Theatre Arts Core Requirements are required to complete at least four (4) lab assignments.

Complete four (4) credits of the following:

- TH 393-Theatre Laboratory Credits: (1)
- TH 493 - Theatre Laboratory Credits: (1)

Production Component - Credits: 3
All theatre majors are required to complete at least one backstage assignment.

Choose one from the following:

- TH 301 - Production Application Credits: (3)
- TH 401 - Production Application Credits: (3)

Theatre Arts Core Total Credits: 26

Performance

Required Courses Credits: 33

## Lower-Division Performance Courses

- TH 148 - Actor Conditioning - Monologue Credits: (1)
- TH 244 - Basic Acting I Credits: (3)
- TH 245 - Basic Acting II Credits: (3)
- TH 246 - Basic Acting III Credits: (3)
- TH 248 - Vocal Conditioning for the Actor Credits: (1)
- TH 249 - Vocal Conditioning for the Actor II Credits: (1) Upper-Division Performance Courses
- TH 329 - Directing I Credits: (3)
- TH 342 - Dialects for Stage and Screen Credits: (3)
- TH 344 - Intermediate Acting I Credits: (3)
- TH 345 - Intermediate Acting II Credits: (3)
- TH 445 - Audition Techniques for the Stage Credits: (3)


## Technical Courses Requirement

- TH 161 - Intro to Technology 1: Costumes and Makeup Credits: (3)
- TH 162 - Intro to Technology 2: Scenery and Lighting Credits: (3)

Literature Component Credits: (8)

Choose any of the following for a minimum of eight (8) credits.

- TH 375 - Asian Drama Credits: (4)
- TH 377 - Staging Gender Credits: (4)
- TH 380 - Studies in Drama Credits: (5)
- TH 382 - Diverse Experiences in American Drama Credits: (4)
- TH 488 - Introduction to Dramaturgy Credits: (3)

Movement Component Credits: (10)
Choose any of the following for a minimum of ten (10) credits.

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 104 - Ballet Technique I Credits: (2)
- DNCE 121 - Tap Dance I Credits: (1)
- DNCE 141 - Jazz Dance I Credits: (1)
- DNCE 142 - Jazz Dance II Credits: (1)
- DNCE 204 - Ballet Technique II Credits: (2)
- PEID 145 - Beginning Circus Arts Credits: (1)
- TH 252 - Stage Dance Credits: (1)
- TH 333 - Stage Combat Fundamentals Credits: (3)
- TH 335 - Movement for the Actor Credits: (3)
- TH 352 - Stage Dance II Credits: (2)
- TH 433 - Advanced Stage Combat Credits: (3)
- TH 435 - Advanced Movement for the Actor Credits: (3)

Performance Component Credits: (9)
Choose or repeat any of the following for a minimum of nine (9) credits.

- TH 202 - Performance Studio Credits: (1-3)
- TH 302 - Performance Application Credits: (3)
- TH 402 - Performance Application Credits: (3)

Special Skills Component Credits: (15)
Choose any of the following for a minimum of fifteen (15) credits.

- TH 143 - Private Voice Lessons Credits: (1-4)
- TH 202 - Performance Studio Credits: (1-3)
- TH 243 - Singing for Actors Credits: (1)
- TH 270 - Stage Makeup Credits: (3)
- TH 302 - Performance Application Credits: (3)
- TH 343 - Singing for Actors II Credits: (1)
- TH 374 - Introduction to Acting for the Camera Credits: (3)
- TH 402 - Performance Application Credits: (3)
- TH 429 - Directing II Credits: (3)
- TH 433 - Advanced Stage Combat Credits: (3)
- TH 435 - Advanced Movement for the Actor Credits: (3)
- TH 444 - Acting Styles Credits: (4)
- TH 474 - Acting for Film and Television Credits: (4)
- TH 481 - Kennedy-Center Festival Credits: (1-2)
- TH 490 - Cooperative Education Credits: (1-12)
- TH 492 - Practicum in Devising and Touring Theatre Credits: (3-12)

Performance Credits: 75

Total Credits: 101

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## Dance Performance Minor (TH)

## Program Director

Therese Young
The dance performance minor is an interdisciplinary minor administered jointly by the dance and theatre arts faculty designed for students who wish to broaden their academic background and receive a well-rounded dance education, thus preparing them in the area of dance performance in a wide variety of settings. Students will develop competencies in choreography, rhythmic concepts, and dance production.

## Program Requirements

Minimum of one-year participation in DNCE 112 Dance Performance (Orchesis Dance Company). By audition.

Required Courses Credits: 26-27

- DNCE 101 - Modern Technique I Credits: (2)
- DNCE 102 - Modern Technique I Credits: (2)
- DNCE 103 - Modern Technique I Credits: (2)
- DNCE 112 - Dance Performance Credits: (1)
- DNCE 161 - Cultural History of Dance Credits: (4)
- DNCE 204 - Ballet Technique II Credits: (2)
- DNCE 205 - Ballet Technique II Credits: (2)
- DNCE 206 - Ballet Technique II Credits: (2)
- DNCE 300 - Dance Composition Credits: (3)
- DNCE 311 - Music for Dance - Rhythms and Resources Credits: (3)
- OR TH 215 - Music Fundamentals I Credits: (3)
- DNCE 402 - Dance Production Credits: (4)
- OR TH 301 - Production Application Credits: (3)


## Department-Approved Electives Credits: 10

Choose any of the following for a minimum of 10 credits: Only one credit courses may be repeated.

- DNCE 121 - Tap Dance I Credits: (1)
- DNCE 122 - Tap Dance II Credits: (1)
- DNCE 130 - American Style Ballroom Dance I Credits: (1)
- DNCE 131 - American Style Ballroom Dance II Credits: (1)
- DNCE 132 - American Style Ballroom Dance III Credits: (1)
- DNCE 133 - International Standard Ballroom Dance I Credits: (1)
- DNCE 134 - International Standard Ballroom Dance II Credits: (1)
- DNCE 135 - International Standard Ballroom Dance III Credits: (1)
- DNCE 136 - International Latin Ballroom Dance I Credits: (1)
- DNCE 137 - International Latin Ballroom Dance II Credits: (1)
- DNCE 138 - International Latin Ballroom Dance III Credits: (1)
- DNCE 141 - Jazz Dance I Credits: (1)
- DNCE 142 - Jazz Dance II Credits: (1)
- DNCE 143 - Jazz Dance III Credits: (1)
- DNCE 150 - Mat Pilates Credits: (1)
- DNCE 155 - Pointe and Variations Credits: (1)
- DNCE 156 - Partnering Credits: (1)
- DNCE 201 - Modern Technique II Credits: (2)
- DNCE 202 - Modern Technique II Credits: (2)
- DNCE 203 - Modern Technique II Credits: (2)
- DNCE 304 - Ballet Technique III Credits: (2)
- DNCE 305 - Ballet Technique III Credits: (2)
- DNCE 306 - Ballet Technique III Credits: (2)
- DNCE 401 - Choreography Credits: (4)
- TH 252 - Stage Dance Credits: (1)
- TH 352 - Stage Dance II Credits: (2)

Total Credits: 36-37

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## Non-profit Organization Management Minor (TH)

(See catalog under communication department for details)
The minor in non-profit organization management is an interdisciplinary minor designed to provide an understanding of the organization, financing and management issues in non-profit organizations. It is designed to complement majors in artistic,
advocacy and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

Total Credits: 30

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## Theatre Arts Minor

The theatre arts minor offers an opportunity for students to study theatre while pursuing a degree in another discipline. This minor is often added to enhance study in art, music, politics, and interior design, among others.

Required Courses Credits: 13

- TH 107 - Introduction to Theatre Credits: (4)
- TH 144 - Foundations of Acting Credits: (3)
- TH 166-Theory of Play Production Credits: (3)

Select 3 credits of production participation from the following:

- TH 201 - Dance Production Application Credits: (13)
- TH 202 - Performance Studio Credits: (1-3)
- TH 301 - Production Application Credits: (3)
- TH 302 - Performance Application Credits: (3)
- TH 303 - Management Application Credits: (3)
- TH 393 - Theatre Laboratory Credits: (1)
- TH 401 - Production Application Credits: (3)
- TH 402 - Performance Application Credits: (3)
- TH 403 - Management Application Credits: (3)
- TH 493 - Theatre Laboratory Credits: (1)

Department-Approved Electives Credits: 17

Theatre electives as approved by advisor.
Total Credits: 30

College and Department Information

Theatre Arts Department
College of Arts and Humanities

## International Theatre Experience Certificate

The certificate focuses on theatre as a means of cultural expression and exploration and is designed to enhance existing curriculum, not program-build. Students increase their
knowledge base and vocabulary in theatre-making and theatre appreciation through experiencing alternative cultural practices and perspectives. These experiences build upon the students' understanding of theatre performance, theatre craft/design and dramatic literature.

Note: This certificate requires additional travel fees that will be collected as part of the TH 278: International Theatre Experience: Planning course. These additional travel fees, that vary, will be published as the programs are offered and are based on variable such as: the travel experiences, locations, and time abroad.

Complete the following for at least 2 credits:

- TH 294 - International Theatre Experience Preparation Credits: (1)

Complete the following for at least 6 credits:

- TH 494 - International Theatre Experience Credits: (1-5) (topic vary based on travel experience)

Complete at least 7 credits of department-approved electives.

A list of suggested electives will accompany the announcement of each Travel Experience (TH 494).

Total Credits: 15

College and Department Information
Theatre Arts Department
College of Arts and Humanities

## University and Enrichment Program

## Undergraduate Studies

## First Area-Skill Building

The first area includes the UNIV 101, 102, and 103 courses.
These courses are ancillary courses that enable students to build skills needed to succeed at CWU. These courses allow students to learn about the General Education program, graduation requirements, develop skills for academic and social success, learn about major and minor programs, and how to approach developing an appropriate career. UNIV 101 is a required course for all students who have 45 or fewer transfer credits.

## Second Area-Skill Exploration and Enrichment

The second area is the enrichment program, which includes UNIV 297, 497, and 597. These courses are designed to encourage student exploration and intellectual enrichment and are only offered during summer quarter. Enrichment courses are not intended to substitute for either general education requirements or major or minor requirements. These courses are a part of a student's enrollment planning-specifically as free
electives. Only eight enrichment course credits can be counted toward a student's elective degree requirements.

## Third Area-Skill Practice and Engagement

The third area is the civic engagement program, which includes UNIV 109, 295, 308, and 309. These courses are designed to help students explore and engage in career interests while meeting community needs.

# William O. Douglas Honors College 

Ellensburg<br>Language and Literature Bldg., room 103<br>Mail Stop 1445<br>509-963-1445<br>Fax: 509-963-1206<br>www.cwu.edu/douglas-honors<br>\section*{Executive Director}<br>Anne Cubilie, PhD<br>\section*{Associate Director}<br>Vacant<br>Assistant Director<br>Christina Denison, MEd<br>\section*{Staff}<br>Nicole Ciraulo, secretary

The William O. Douglas Honors College (DHC) is Central's interdisciplinary program for academically talented students. The program is divided into two parts: a core curriculum and an upper-division scholarship experience. The core curriculum is composed of a series of courses that emphasize how the arts, humanities, sciences, and social sciences converge in considering historically important questions. The upper-division scholarship experience involves additional, advanced courses and a culminating research project either in the arts and humanities or in the sciences. DHC also sponsors cultural field trips, guest lectures, and a number of other extracurricular activities.

The college is named for U.S. Supreme Court Justice William O. Douglas, a native of Yakima, Washington, and a great supporter of higher education. Following Justice Douglas' example, the DHC encourages intellectual breadth, academic curiosity, and the application of scholarship to pressing social issues.

Students wishing to apply should contact the DHC office to find out about minimum qualifications and the application process. Students may apply to the honors college at any point in their college career.

DHC students must maintain a high level of academic achievement. A DHC student is in good standing when his or her cumulative grade point average (GPA) is 3.0 or higher. If a first-year DHC student's cumulative GPA falls below 3.0 and
remains below 3.0 for two consecutive quarters, the student shall be placed on academic warning for one quarter. After the first year, a DHC student will be placed on academic warning if his or her cumulative GPA falls below 3.0 for one quarter. Any student placed on warning shall be suspended from the DHC if his or her cumulative GPA is not 3.0 or above the quarter following the warning. The DHC director has the discretion to waive and/or modify these standards for individual students as long as such modification does not affect the academic integrity of the DHC, as determined by the DHC director. A student who has been suspended from the DHC may reapply only if his or her cumulative GPA reaches 3.0 or higher.

For additional information, visit the DHC website (www.cwu.edu/douglas-honors), stop by the office (Language and Literature Building, room 103), or call 509-963-1445.

## Douglas Honors College

The William O. Douglas Honors College (DHC) is Central's interdisciplinary program for academically talented students. The program is divided into two parts: the core curriculum (general education) and upper-division honors. The Core Curriculum is composed of a series of courses that emphasize how the arts, humanities, sciences, and social sciences converge in considering important questions. Upper Division Honors involves additional, advanced courses and a culminating research or creative project. DHC also sponsors cultural field trips, guest lectures, and a number of other extracurricular activities.

The college is named for U.S. Supreme Court Justice William O. Douglas, a native of Yakima, Washington, and a great supporter of higher education. Following Justice Douglas' example, the DHC encourages intellectual breadth, academic curiosity, and the application of scholarship to pressing social issues.

Students wishing to apply should contact the DHC office to find out about minimum qualifications and the application process. Students may apply to the honors college at any point in their college career.

DHC students must maintain a high level of academic achievement. All DHC students are held to the academic and behavioral standards as set forth in the DHC Student Code of Conduct. A DHC student is in good academic standing when his or her cumulative grade point average (GPA) is 3.0 or higher. If a first-year DHC student's cumulative GPA falls below 3.0 and remains below 3.0 for two consecutive quarters, the student shall be placed on academic warning for one quarter. After the first year, a DHC student will be placed on academic warning if his or her cumulative GPA falls below 3.0 for one quarter. Any student whose cumulative GPA is below 3.0 at time of graduation will not receive honors recognition from the DHC. The DHC director has the discretion to waive and/or modify these standards for individual students as long as such modification does not affect the academic integrity of the DHC, as determined by the DHC director. A student who has been suspended from the DHC for violating the DHC Student Code of Conduct may reapply; however, re-admittance is not guaranteed.
(www.cwu.edu/douglas-honors), stop by the office (Language and Literature Building, room 103), or call 509-963-1900.

Required Courses Credits: 56
Basic and Breadth Requirements (Core Curriculum)

- DHC 140 - Humanistic Understanding I Credits: (5)
- DHC 141 - Humanistic Understanding II Credits: (5)
- DHC 150 - Aesthetic Experience I Credits: (5)
- DHC 151 - Aesthetic Experience II Credits: (5)
- DHC 160 - Physical and Biological Systems I Credits: (5)
- DHC 161 - Physical and Biological Systems II Credits: (5)
- DHC 250 - Social and Behavioral Dynamics I Credits: (5)
- DHC 251 - Social and Behavioral Dynamics II Credits: (5)
- DHC 260 - Cultural Studies I Credits: (5)
- DHC 261 - Cultural Studies II Credits: (5)
- DHC 270 - Integrated Learning Credits: (5)
- UNIV 101 - Transition to CWU Credits: (1)

Advising Seminar
In accordance with university requirements, DHC students must take UNIV 101: Academic Advising Seminar as part of their general education coursework. Preferably, students taking UNIV 101 should take the section designated specifically for DHC students.

## World Language

DHC applicants are normally expected to have met the competence requirements for world language prior to acceptance. Students who have not done so will be required to take classes through World Language 153.

## Mathematics

DHC applicants are normally expected to have met the competence requirements for mathematics prior to acceptance. Students have met the math competency requirement if they passed Calculus in high school. Students who have not done so will be required to take classes through MATH 154 or placement in MATH 172 or higher or take MATH 101H.

## Upper-Division Honors

The upper-division honors involves additional, advanced courses and a culminating research or creative project. Students may enroll in upper-division honors at any time, with or without the DHC core curriculum.

Arts and Sciences Honors Credits: 15

For additional information, visit the DHC website

A student who completes the upper-division honors courses as well as a thesis/capstone project will earn the title Arts and Sciences Scholar.
*Students in the sciences may substitute four (4) research credits for DHC 480.

- DHC 301 - Honors Seminar: Elements of Research Credits: (2)
- DHC 380 - History of Science Credits: (4)
- DHC 401 - Honors Capstone Seminar Credits: (3)
- DHC 480 - Interdisciplinary Senior Seminar Credits: (4)
- DHC 497 - Honors Thesis and/or Creative Project Credits: (2)


## Douglas Honors College Scholar

A student who completes both the core curriculum and upperdivision honors will be designated a Douglas Honors College Scholar by the university.

## Interdisciplinary Honors Minor

A student who completes the following course regimen (34 credits) earns a DHC minor.

Select from the following: Credits: 5

- DHC 140 - Humanistic Understanding I Credits: (5)
- DHC 141 - Humanistic Understanding II Credits: (5)

Select from the following: Credits: 5

- DHC 150 - Aesthetic Experience I Credits: (5)
- DHC 151 - Aesthetic Experience II Credits: (5)

Select from the following: Credits: 5

- DHC 160 - Physical and Biological Systems I

Credits: (5)

- DHC 161 - Physical and Biological Systems II Credits: (5)

Select from the following: Credits: 5

- DHC 250 - Social and Behavioral Dynamics I Credits: (5)
- DHC 251 - Social and Behavioral Dynamics II Credits: (5)

Select from the following: Credits: 5

- DHC 260-Cultural Studies I Credits: (5)
- DHC 261 - Cultural Studies II Credits: (5)
- DHC 270 - Integrated Learning Credits: (5)
- DHC 380 - History of Science Credits: (4)

Total Credits: 34

College and Department Information
William O. Douglas Honors College

# Women's, Gender, and Sexuality Studies Program 

College of the Sciences<br>Ellensburg<br>Farrell., room 436

509-963-1574
Fax 509-963-1308
www.cwu.edu/women-gender
See the website for how this program may be used for educational and career purposes.

## Director

Judith Hennessy, PhD

## Program Information

Women's, gender, and sexuality studies cultivates a critical awareness of the contributions of women and the impact of gender in our lives, both historically and in the contemporary world. Our interdisciplinary scope includes examining these issues from the perspective of politics, anthropology, sociology, psychology, history, philosophy, art, and literature. The objectives of the program are:

1. To explore existing knowledge about women and gender in a variety of disciplines
2. To critically assess the traditional disciplines in the light of new data concerning women and gender
3. To provide an academic foundation for students planning careers in women's studies or related fields
4. To promote research about women and gender within existing disciplines

Women's, gender, and sexuality studies offers an interdisciplinary minor as described below. With approval of the women's, gender, and sexuality studies director, the student will select appropriate electives to meet personal and professional goals.

With faculty advisement, interested students may construct individualized majors in women's, gender, and sexuality studies through the individual studies program for BA or BS major.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/women-gender or by contacting the department directly.

## Women's, Gender, and Sexuality Studies, BA

Women's, gender and sexuality studies cultivates a critical awareness of the contributions of women and the impact of gender and sexuality in our lives, both historically and in the contemporary world. Our interdisciplinary scope includes examining these issues from the perspective of politics, anthropology, sociology, psychology, history, philosophy, artistic expression, and literature. The objectives of the program are:

1. To explore existing knowledge about women, gender, and sexuality across a variety of disciplines
2. To critically assess the traditional disciplines in the light of new data concerning women, gender and sexuality.
3. To provide an academic foundation for students planning careers in diverse organizations; companies; and communities; women's, gender and sexuality studies, or related fields
4. To promote research about women, gender, and sexuality within existing disciplines

Required Courses Credits: 28

- WGSS 201 - Introduction to Women's, Gender, and Sexuality Studies Credits: (5)
- WGSS 250 - Introduction to Queer Studies Credits: (5)
- WGSS 326 - Intersections of Gender, Race, Class, and Sexualities Credits: (5)
- WGSS 340 - Gender and Sexuality in a Global Context Credits: (5)
- WGSS 351 - Feminist Theory Credits: (5)
- WGSS 489 - Women's, Gender, and Sexuality Studies Senior Capstone Credits: (3)

Department-Approved Electives Credits: 18-20
At least two (2) courses from the Humanities/Arts division and two (2) courses from the Social/Natural Science division with no more than 10 credits from any one discipline.

Humanities/Arts, Education and Professional Studies (Choose at least two courses)

- COM 402 - Gender Communication Credits: (4)
- ENG 335 - Women's Literature Credits: (5)
- HIST 334 - History of Gender and Sexuality in Africa from Pre-colonial Times to the Present Credits: (5)
- PHIL 325 - Women and Philosophy Credits: (5)
- PUBH 448 - Sexual Health Credits: (4)
- TH 377 - Staging Gender Credits: (4)

Social/Natural Sciences (Choose at least two courses)

- ANTH 356-Gender Roles in Cross-cultural Perspective Credits: (4)
- ANTH 384 - Language and Gender Credits: (4)
- LAJ 403 - Sexual Minorities, the Law, and Justice Credits: (4)
- POSC 311 - Women and Politics Credits: (5)
- PSY 312 - Queer Theory and Sexuality Credits: (4)
- PSY 483 - Psychology of Gender Credits: (4)
- SOC 348 - Women and Crime Credits: (5)
- SOC 356 - Sociology of Gender Credits: (5)
- SOC 357 - Sociology of Families Credits: (5)
- SOC 358 - Sociology of Sexualities Credits: (5)
- SOC 359 - U.S. Feminist Movements Credits: (5)

Special topics courses, cooperative education projects, and independent study courses may also count toward elective credit.

Total Credits: 46-48
College and Department Information

Women's, Gender, and Sexuality Studies Program College of the Sciences

## Women's, Gender, and Sexuality Studies Minor


#### Abstract

Women's, Gender, and Sexuality Studies minor is an interdisciplinary minor designed to help students cultivate a critical awareness of gender and sexuality in their lives and an increasingly complex world.


Required Courses

- WGSS 201 - Introduction to Women's, Gender, and Sexuality Studies Credits: (5)

Department-Approved Electives Credits: 20
(select 20 credits, with no more than 10 credits in a single department)

- ANTH 356 - Gender Roles in Cross-cultural Perspective Credits: (4)
- ANTH 384 - Language and Gender Credits: (4)
- COM 402 - Gender Communication Credits: (4)
- ENG 335 - Women's Literature Credits: (5)
- PUBH 448 - Sexual Health Credits: (4)
- HIST 334 - History of Gender and Sexuality in Africa from Pre-colonial Times to the Present Credits: (5)
- HIST 344 - American Manhood in Historical Perspective Credits: (5)
- HIST 346 - Women in American History Credits: (5)
- LAJ 403 - Sexual Minorities, the Law, and Justice Credits: (4)
- LAJ 453 - Domestic Violence Issues Credits: (4)
- PHIL 325 - Women and Philosophy Credits: (5)
- POSC 311 - Women and Politics Credits: (5)
- PSY 312 - Queer Theory and Sexuality Credits: (4)
- PSY 483 - Psychology of Gender Credits: (4)
- SOC 348 - Women and Crime Credits: (5)
- SOC 356 - Sociology of Gender Credits: (5)
- SOC 357 - Sociology of Families Credits: (5)
- TH 377 - Staging Gender Credits: (4)
- SOC 358 - Sociology of Sexualities Credits: (5)
- SOC 359 - U.S. Feminist Movements Credits: (5)
- WGSS 250 - Introduction to Queer Studies Credits: (5)
- WGSS 490 - Cooperative Education Credits: (112)

Total Credits: 25

College and Department Information

Women's, Gender, and Sexuality Studies Program College of the Sciences

## World Languages and Cultures Department

College of Arts and Humanities<br>Ellensburg<br>Language and Literature Bldg., room 102<br>Mail Stop 7552<br>509-963-1218<br>wlang_dept@cwu.edu<br>www.cwu.edu/foreign-language

See website for how these programs can be used for educational and career purposes.

## Faculty and Staff

Chair
Michael Johnson, PhD

## Professors

Rodney Bransdorfer, PhD, Spanish
Nathalie Kasselis, PhD, Spanish, French
Natalie Lefkowitz, PhD, Spanish, French
Stella Moreno, PhD, Spanish
Joshua S. Nelson, PhD, Japanese

## Associate Professors

Michael Johnson, PhD, French

Eric Mayer, PhD, Spanish

## Assistant Professors

Volha Isakava, PhD, Russian

## Lecturers

Roselia Arellano-Sandoval, MA, Spanish
Dinara Georgeoliani, PhD, Russian
Mariko Knight, BA, Japanese
Yuanxia Liu, MA Chinese
Jer Loudenback, MA, American sign language
Laurie Moshier, DA, French, German
Mariko Okada-Collins, MA, Japanese

## Staff

Ralph Bane, secretary senior

## Department Information

The Department of World Languages and Cultures offers BA degrees in French, Japanese, Russian, and Spanish and minors in ASL, Chinese, French, German, Japanese, Russian, and Spanish. Spanish has two streams: Heritage and Second Language Learner.

For non-majors or minors, the first-and second-year sequences are designed to provide basic proficiency in a world language. The department recommends that all majors include some organized study abroad where their major language is spoken, but there is no requirement for study abroad in any of the programs.

The World Languages and Cultures Department's Core Values are:

Lifelong Learning; Cross-cultural Communication, and Global Citizenship.

All WLC programs and courses adhere to these values.

## Admission to Department Programs

Students planning to major or minor must meet with an advisor in the World Languages and Cultures department for details about admission requirements and to complete an application form.

## Departmental Standards

Students in the majors and minors must earn a minimum grade of $\mathrm{C}+$ in each course used for their program/s.

## Core Course Requirements

Only courses numbered 200 and above will count toward a major or minor. Students may contact the department to request placement testing if they have prior instruction in any of the languages. For students with sufficient preparation, the 200level sequence may be waived through our placement exam or credit by examination. Please note that Spanish CLEP test scores may be used to complete General Education and/or graduation requirements but may not be used to fulfill course requirements for Spanish majors or minors. Students planning to study abroad must see their advisor prior to departure to ensure the applicability of the proposed course of study. All upperdivision classes not listed as requirements are approved electives.

## Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website: www.cwu.edu/foreign-language or by contacting the department directly.

## French Major, BA

This major requires a minor. Study abroad is recommended but not required for this major.

The French Major program offers small and focused classes taught by expert faculty. Students develop language proficiency and in-depth knowledge of culture through coursework that covers France and the francophone world, including Canada, North and Sub-Saharan Africa, and the Caribbean. This major is an asset to students who seek careers in education, international business, translation and interpretation, hospitality and tourism, foreign services, and more.

## Required Courses

## Second-year French Credits: 15

- FR 251 - Second-year French Credits: (5)
- FR 252 - Second-year French Credits: (5)
- FR 253 - Second-year French Credits: (5)

Department-approved French Electives Credits: 30

Total Credits: 45

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Japanese Major, BA - Large Plan

[^13]Second-year Japanese Credits: 15

- JAPN 251 - Second-year Japanese Credits: (5)
- JAPN 252 - Second-year Japanese Credits: (5)
- JAPN 253 - Second-year Japanese Credits: (5)

Composition, Grammar and Conversation Credits: 10

- JAPN 361 - Composition, Grammar and Conversation I Credits: (5)
- JAPN 362 - Composition, Grammar and Conversation II Credits: (5)

Department-approved Japanese Electives Credits: 35
(including those from study abroad institutions)

Total Credits: 60

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Japanese Major, BA - Small Plan

This major requires a minor. Study abroad is recommended but not required for this major.

The Japanese Small Plan Major program guides students through the process of learning Japanese, and in doing so, fosters an appreciation of Japanese culture and history. In a broad sense, our program endeavors to help our students develop expanded intellectual horizons, an understanding of themselves, and improved communication and thinking skills, all through the study of the Japanese language. With Japanese, students can find careers in the electronics and film industries, education, business, tourism, the military, the Foreign Service, and other areas. The US Government designates Japanese as a "critical" language. ROTC students may be eligible to receive scholarships or other benefits if they select this major.

## Required Courses

Second-year Japanese Credits: 15

- JAPN 251 - Second-year Japanese Credits: (5)
- JAPN 252 - Second-year Japanese Credits: (5)
- JAPN 253 - Second-year Japanese Credits: (5)

Composition, Grammar and Conversation Credits: 10

- JAPN 361 - Composition, Grammar and Conversation I Credits: (5)
- JAPN 362 - Composition, Grammar and Conversation II Credits: (5)
(including those from study abroad institutions)

Total Credits: 45

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Russian Studies Major, BA

This major requires a minor. Study abroad is recommended but not required for this major.

The Russian major program offers classes in Russian language as well as Russian culture; e.g. film, history, and society. Russian is not only the language of the largest country in the world but is also spoken in 15 countries across Eastern Europe and Central Asia by over 160 million people. Consider taking Russian for careers in the government, Foreign Service, military, journalism, international NGOs and business, education, and tourism. The US Government designates Russian as a "critical" language. ROTC students may be eligible to receive scholarships or other benefits if they select this major.

## Required Courses

Second-year Russian Credits: 15

- RUSS 251 - Second-year Russian Credits: (5)
- RUSS 252 - Second-year Russian Credits: (5)
- RUSS 253 - Second-year Russian Credits: (5)

Advanced Russian Credits: 8

- RUSS 341 - Advanced Russian I Credits: (4)
- RUSS 342 - Advanced Russian II Credits: (4)

Advanced Composition and Grammar Credits: 4

- RUSS 441 - Advanced Composition and Grammar Credits: (4)

Topics in Russian Language Credits: 4
Variable topics (2 courses of 2 credits each)

- RUSS 445 - Topics in Russian Language Credits: (2)

Department-approved Russian Electives Credits: 14

Total Credits: 45

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Spanish Major, BA

This major requires a minor.
There are two streams connected with this major, one for Second Language Learners (students who do not speak Spanish at home), and one for Heritage Students (students with some linguistic familiarity with Spanish in the home).

Study abroad is recommended but not required for this major.
The Spanish major offers small and student-centered classes. Students develop language proficiency and in-depth knowledge of a culture through coursework that covers Spain, Latin America, and the U.S. Latino population. A solid background in Spanish language and culture is an asset to students who seek careers in education, international business, translation and interpretation, hospitality and tourism, and more. Because Spanish is the second language of the U.S., having a degree in Spanish also automatically enhances any other career choice.

The Heritage stream offers differentiated second and third year courses especially designed for students who have some prior understanding of the Spanish language, having interacted with it in the home. Students will interact with others who share a similar linguistic and cultural background, as well as learn about the cultures and literatures of the Hispanic world.

## Admission Requirements

Eligibility for 2nd-year Spanish is a requirement for entrance to the major.

## Required Courses

## Second-year Spanish Credits: 15

- SPAN 251 - Second-year Spanish Credits: (5)
- SPAN 252 - Second-year Spanish Credits: (5)
- SPAN 253 - Second-year Spanish Credits: (5)

OR

Spanish for Heritage Speakers Credits: 15

- SPAN 261 - Spanish for Heritage Speakers I Credits: (5)
- SPAN 262 - Spanish for Heritage Speakers II Credits: (5)
- SPAN 263 - Spanish for Heritage Speakers III Credits: (5)

Literature and Cultures Credits: 10

- SPAN 301 - Introduction to Spanish and Latin American Literature Credits: (5)
- SPAN 310 - Hispanic Civilizations and Cultures Credits: (5)

Composition and Grammar I Credits: 5

- SPAN 341 - Spanish Composition and Grammar I Credits: (5)
- OR SPAN 345-Composition and Grammar for Heritage Speakers I Credits: (5)

Department-Approved Spanish Language, Literature, and/or Culture Electives Credits: 20

- SPAN 342 - Spanish Composition and Grammar II Credits: (5)
- SPAN 343 - Spanish Conversation Credits: (5)
- SPAN 346 - Composition and Grammar for Heritage Speakers II Credits: (5)
- SPAN 380 - Contemporary Hispanic Literature and Cultures Credits: (5)
- SPAN 381 - Hispanic and U.S. Latino Literatures and Cultures Credits: (5)
- SPAN 385 - Spanish Phonetics Credits: (5)
- SPAN 398 - Special Topics Credits: (1-6)
- SPAN 432 - Advanced Spanish Composition and Grammar Credits: (5)
- SPAN 442 - Spanish Translation and Interpretation Credits: (5)
- SPAN 443-Advanced Spanish Translation Credits: (5)
- SPAN 445 - Spanish Medieval Literature Credits: (5)
- SPAN 446 - Hispanic Cinema Credits: (5)
- SPAN 447 - Framing Latin American Cinema Credits: (5)
- SPAN 448 - Framing South American Cinema (Put on reserve 9/16/17) Credits: (5)
- SPAN 449 - Spanish Golden Age Literature Credits: (5)
- SPAN 456 - The Spanish and Latin American Short Story Credits: (5)
- SPAN 457 - Latin American Theater (Put on reserve 9/16/2014.) Credits: (4)
- SPAN 459 - Latin American Poetry (Put on reserve 9/16/17) Credits: (5)
- SPAN 466 - Spanish Poetry Credits: (5)
- SPAN 496 - Individual Study Credits: (1-6)
- SPAN 498 - Special Topics Credits: (1-6)

Total Credits: 50

College and Department Information

World Languages and Cultures Department College of Arts and Humanities

## American Sign Language Minor

The ASL minor is designed for students who wish to develop advanced level proficiency in American Sign Language. Offering small, focused classes, that cover language, culture, education, and literature, this minor is of benefit to socialminded careers that reach and assist deaf people, like teaching, interpreting, and working in the health-care sectors or
government agencies. There is currently a high demand of people proficient in ASL in the U.S.

Required Courses

- ASL 251 - Second-year American Sign Language Credits: (5)
- ASL 252 - Second-year American Sign Language Credits: (5)
- ASL 253 - Second-year American Sign Language Credits: (5)
- ASL 301 - American Sign Language Literature Credits: (5)
- ASL 310 - Deaf Culture Credits: (5)
- ASL 343 - Deaf Education Credits: (5)

Total Credits: 30
College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Chinese Minor

The Chinese minor offers small and focused courses of language instruction by a native mandarin speaker, and proposes elective courses in Chinese history, culture, or languages. Students are encouraged to study abroad to achieve medium proficiency but may complete the minor on campus. Please contact the department for which courses are available as electives in any given year. In today's global and transnational world, Chinese is one of the most popular and necessary languages, and students with a Chinese minor may also profit from taking CWU's Asia Pacific Studies program. With a minor in Chinese, students can find careers in translation and interpretation, education, business, tourism, the military, the Foreign Service, and other areas. The US Government designates Chinese as a "critical" language. ROTC students may be eligible to receive scholarships or other benefits if they select this minor.

Only courses at the 200-level or above may count towards the minor.

## Required Courses

Second-year Chinese Credits: 15

- CHIN 251 - Second-year Chinese Credits: (5)
- CHIN 252 - Second-year Chinese Credits: (5)
- CHIN 253 - Second-year Chinese Credits: (5)

Department-approved Chinese Electives Credits: 12
Total Credits: 27
College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## French Minor

The French Studies minor offers small and focused classes taught by expert faculty. Students develop language proficiency and in-depth knowledge of culture through coursework that covers France and the francophone world, including Canada, North and Sub-Saharan Africa, and the Caribbean. This major is an asset to students who seek careers in education, international business, translation and interpretation, hospitality and tourism, foreign services and more.

Only courses at the 200-level or above may count towards the minor.

Required Courses

Second-year French Credits: 15

- FR 251 - Second-year French Credits: (5)
- FR 252 - Second-year French Credits: (5)
- FR 253 - Second-year French Credits: (5)

Department-approved French Electives Credits: 12

Total Credits: 27

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## German Minor

The German minor offers small, focused, and student-centered classes in language, language use, and creative expression. Students also gain in-depth knowledge of culture though coursework that covers Germany, Switzerland, and Austria. Students are encouraged to study abroad to achieve proficiency but may complete the minor on campus. Please contact the department for which courses are available as electives in any given year. A minor in German is an asset to students who seek careers in education, international business, translation and interpretation, hospitality and tourism, the military, and more.

Only courses at the 200-level or above may count towards the minor.

Required Courses

## Second-year German Credits: 15

- GERM 251 - Second-year German Credits: (5)
- GERM 252 - Second-year German Credits: (5)
- GERM 253 - Second-year German Credits: (5)

Department-approved German electives Credits: 12

Total Credits: 27

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Japanese Minor

The Japanese minor guides students through the process of learning Japanese, and in doing so, fosters an appreciation of Japanese culture and history. With Japanese, students can find careers in the electronics and film industries, education, business, tourism, the military, the Foreign Service, and other areas. The US Government designates Japanese as a "critical" language. ROTC students may be eligible to receive scholarships or other benefits if they select this minor.

Only courses at the 200-level or above may count towards the minor.

Required Courses
Second-year Japanese Credits: 15

- JAPN 251 - Second-year Japanese Credits: (5)
- JAPN 252 - Second-year Japanese Credits: (5)
- JAPN 253 - Second-year Japanese Credits: (5)

Composition, Grammar and Conversation Credits: 10

- JAPN 361 - Composition, Grammar and Conversation I Credits: (5)
- JAPN 362 - Composition, Grammar and Conversation II Credits: (5)

Department-Approved Electives Credits: 5

Total Credits: 30

College and Department Information
World Languages and Cultures Department College of Arts and Humanities

## Russian Studies Minor

Courses must be numbered 200 or above.

## Required Courses

Second-year Russian Credits: 15

- RUSS 251 - Second-year Russian Credits: (5)
- RUSS 252 - Second-year Russian Credits: (5)
- RUSS 253 - Second-year Russian Credits: (5)

Advanced Russian Credits: 8

- RUSS 341 - Advanced Russian I Credits: (4)
- RUSS 342 - Advanced Russian II Credits: (4)

Advanced Composition and Grammar Credits: 4

- RUSS 441 - Advanced Composition and Grammar Credits: (4)

Topics in Russian Language Credits: 2
Variable topics ( 1 course of 2 credits)

- RUSS 445 - Topics in Russian Language Credits: (2)


## Total Credits: 29

College and Department Information
World Languages and Cultures Department
College of Arts and Humanities

## Spanish Minor

There are two streams connected with this minor, one for Second Language Learners (students who do not speak Spanish at home), and one for Heritage Students (students with some linguistic familiarity with Spanish in the home).

The Spanish minor (for Second Language Learners) offers small and student-centered classes. Students develop language proficiency and in-depth knowledge of cultures through coursework that covers Spain, Latin America, and the U.S. Latino population.

The Spanish minor (for Heritage students) offers differentiated second and third year courses, especially designed for students who have some understanding of the Spanish language having interacted with it in the home. Students will interact with others who share a similar linguistic and cultural background, as well as learn about the cultures and literatures of the Hispanic world.

A solid background in Spanish language and culture is an asset to students who seek careers in education, international business, translation and interpretation, hospitality and tourism, and more. Because Spanish is the second official language of the U.S. having a degree in Spanish also automatically enhances any other career choice.

Only courses at the 200-level or above may count towards the minor.

## Admission Requirements

Eligibility for 2nd-year Spanish is a requirement for entrance to the minor.

## Required Courses

Second-year Spanish Credits: 15

- SPAN 251 - Second-year Spanish Credits: (5)
- SPAN 252 - Second-year Spanish Credits: (5)
- SPAN 253 - Second-year Spanish Credits: (5)

OR

Spanish for Heritage Speakers Credits: 15

- SPAN 261 - Spanish for Heritage Speakers I Credits: (5)
- SPAN 262-Spanish for Heritage Speakers II Credits: (5)
- SPAN 263 - Spanish for Heritage Speakers III Credits: (5)

Composition and Grammar Credits: 5

- SPAN 341 - Spanish Composition and Grammar I Credits: (5)
- OR SPAN 345-Composition and Grammar for Heritage Speakers I Credits: (5)

Department-Approved Spanish Electives Credits: 10

- SPAN 301 - Introduction to Spanish and Latin American Literature Credits: (5)
- SPAN 310 - Hispanic Civilizations and Cultures Credits: (5)
- SPAN 342 - Spanish Composition and Grammar II Credits: (5)
- SPAN 343 - Spanish Conversation Credits: (5)
- SPAN 346-Composition and Grammar for Heritage Speakers II Credits: (5)
- SPAN 380 - Contemporary Hispanic Literature and Cultures Credits: (5)
- SPAN 381 - Hispanic and U.S. Latino Literatures and Cultures Credits: (5)
- SPAN 385 - Spanish Phonetics Credits: (5)
- SPAN 398 - Special Topics Credits: (1-6)
- SPAN 432 - Advanced Spanish Composition and Grammar Credits: (5)
- SPAN 442 - Spanish Translation and Interpretation Credits: (5)
- SPAN 443-Advanced Spanish Translation Credits: (5)
- SPAN 445 - Spanish Medieval Literature Credits: (5)
- SPAN 446 - Hispanic Cinema Credits: (5)
- SPAN 447 - Framing Latin American Cinema Credits: (5)
- SPAN 449 - Spanish Golden Age Literature Credits: (5)
- SPAN 456-The Spanish and Latin American Short Story Credits: (5)
- SPAN 466 - Spanish Poetry Credits: (5)
- SPAN 496 - Individual Study Credits: (1-6)
- SPAN 498 - Special Topics Credits: (1-6)

Total Credits: 30

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## Global Cultural Training Certificate

The Global Cultural Training Certificate equips students with valuable skills for working in a multicultural professional environment in a globalized market through a blend of theoretical (COM 302, WLC 427), applied (global culture electives in World Languages and Cultures), and experiential learning (WLC 490). It also equips students with skills that will enrich their personal lives and help them become ethical and global-minded citizens prepared to build lives for themselves in a world where diversity and interconnectedness are the norm. The Global Cultural Training Certificate provides in-depth focus and training on a specific skill set that will enhance the students' experience and add value to any number of CWU majors.

Required Courses Credits: 14

- COM 302 - Intercultural Communication Credits: (4)
- WLC 427 - Cross-Cultural Competence in a Globalized World Credits: (5)
- WL 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits)

Department-Approved Electives Credits: 5
Choose one from the following:

- FR 200 - Introduction to French Culture Credits: (5)
- JAPN 311 - Manga and Anime: Japanese Visual Culture Credits: (5)
- RUSS 200 - The Art of the Protest: Censorship and Resistance in Russian Culture Credits: (5)
- WLC 250 - Language and Power Credits: (5)
- WLC 311 - Popular Cultures of the World Credits: (5)

Total Credits: 19

## Spanish Translation and Interpretation Certificate

A certificate in Spanish Translation and Interpretation which will develop and augment the training and skills you obtain in the Minor or Major. Two of the courses [SPAN 442 and SPAN 443] currently serve as electives for the minor or major. The
remaining two courses [SPAN 454 and SPAN 492 or WL 490] are specific to the certificate. Together, these courses will provide you with training in specified terminology, and practical, hands-on experience in providing translation and interpretation services in medical, legal, and academic situations for needful members of the Central Washington region.

## Admission Requirements

Spanish majors and minors must have completed SPAN 341 with a C+ or above. All other students (both matriculated and non-matriculated) must demonstrate equivalent level of proficiency and receive departmental permission.

## Required Courses

- SPAN 442 - Spanish Translation and Interpretation Credits: (5)
- SPAN 443-Advanced Spanish Translation Credits: (5)
- SPAN 454 - Medical and Legal Spanish for Translators and Interpreters Credits: (5)
- SPAN 492 - Practicum in Spanish Translation and Interpretation Credits: (5)
- OR WL 490 - Cooperative Education Credits: (1-12) (Must be taken for 5 credits.)

Total Credits: 20

College and Department Information

World Languages and Cultures Department
College of Arts and Humanities

## YESS (Yearlong <br> Exploration of Social Sciences Program)

The Yearlong Exploration of Social Sciences (YESS) is an innovative program designed to prepare and retain students in majors and careers in the social sciences. YESS consists of an integrated sequence of classes, enrichment activities in service learning, and student research opportunities through which students gain hands-on experience in modern social science research methods, explore theme-based interdisciplinary social scientific issues, and develop mentoring relationships with CWU social science faculty.

Application to YESS is open to new first-year students with an interest in social science fields.

First year students enrolled in YESS will participate in a three-quarter-long series of courses known as the YESS Social Science Perspectives and Research Seminar (YESS 101, YESS 102, and YESS 103). Completion of these three courses satisfies one of the General Education Program requirements.

The Yearlong Exploration of the Social Sciences program at CWU involves faculty members from social science academic departments: Anthropology; Geography; Interdisciplinary Studies: Social Sciences Program; Law and Justice; Political Science; Psychology; and Sociology. More information about the program and participating faculty members is available on the YESS website: www.cwu.edu/yess.

Program Outcomes
For information on program outcomes, please go to: www.cwu.edu/mission.

## Course Offerings

Frequency of course offering information can be found at the department website or by contacting the department directly.

Yearlong Exploration of Social Sciences Program (YESS)
Courses

- YESS 101 - YESS Social Science Perspectives and Research I Credits: (2)
- YESS 102 - YESS Social Science Perspectives and Research II Credits: (2)
- YESS 103 - YESS Social Science Perspectives and Research III Credits: (1)


## Course Descriptions

ABS 110. Expressive Black
Culture: African American
Literary Traditions from
Folklore to Rap (5).
Interdisciplinary exploration of perspectives in African
American folk culture, from
oral expressions originating in
Africa and developed during
slavery to contemporary rap
and stand-up comedy. Course explores the worldwide contribution of black oral performative art. AH-
Literature and Humanities.
Course will be offered every year (Fall, Winter and Summer).
Upon successful completion of this course, the student will be able to:
Examine and identify African American cultural traditions as they are expressed through literature, oral tradition, art, and performance. Synthesize understanding of the development of African American expressive culture from its origins in Africa through its adaptations and transformations in the United States, to its appropriation and globalization.
Analyze forms of African American cultural expression and compare with student's own linguistic, conceptual and normative presuppositions. Examine ways in which linguistic, religious, philosophical, and historical circumstances have shaped both Black identity and social construction of African Americans by dominant cultures. Develop connections between concepts learned in course and topics that can be delivered to community.
Analyze the values, perspectives and attitudes of the dominant culture relative to contemporary African American expressive culture as an alternative cultural space where Blacks exercise power and resist institutional
"manageability and intelligibility."

Identify methods African
Americans used historically to advocate for social justice at local, national, and international levels. Analyze ways equality and inequality are institutionalized in social, political, economic and organizational structures. Connect personal experiences to issues of social justice within African American communities.
Develop the ability to articulate issues and processes, pertaining to African
Americans and the African
Diaspora, that cross
international boundaries.
Determine credibility of
information sources and understand elements that might temper this credibility.
ABS 210. Intro to the African
American Odyssey: Socio-
Economic and Political
Forces Shaping Black
Experience (5).
Examination of African
Americans as (1) members of the nation they helped to build; and (2) members of a distinct culture that shapes and is shaped by local, national and global socio-economic and political forces. Course will be offered every year (Winter, Spring).
Upon successful completion of this course, the student will be able to:
Articulate how African
Americans have gained access to or have been denied citizenship based on analyses of social, cultural, economic and political processes, issues, and events
Explain how social, psychological, and cultural experiences create value in African American communities. Analyze the relationship between the development of the African American experience and the community, citizenship, politics, and/or government
Describe how historical, social, economic, and cultural
developments have affected African American communities, including Slavery, Abolition, Civil War, Emancipation, Reconstruction, WW I \& II, The Great Migration, The Great Depression, Civil Rights movement, Black Power, the election of Barrack Obama and Black Lives Matter movement. Develop connections between concepts learned in course and topics that can be delivered to the local community. Apply what has been learned in class to address local pushback to active civil rights movements (for example, Black Lives Matter).
Identify methods African Americans used historically to advocate for social justice at local, national, and international levels. Analyze ways equality and inequality are institutionalized in social, political, economic and organizational structures. Develop the ability to articulate issues and processes, pertaining to African Americans, that cross international boundaries. Determine credibility of information sources and understand elements that might temper this credibility.
ABS 298. Special Topics (1-
6). May be repeated if subject is different.
ABS 299. Seminar (1-5). May be repeated if subject is different.
ABS 300. Black Diaspora Studies: Afro-Latin America and Afro-Caribbean
Cultures (5). Examines communities developing from displacement of Africans during colonization of the New World and the impact of these communities on Latin America and the Caribbean.
Upon successful completion of this course, the student will be able to:
Conduct field work in cultural studies focusing on the Black Diaspora communities.

Identify and describe Black Diaspora communities in Latin America and the Caribbean. Demonstrate their understanding of how communities developed from the displacement of Africans during the colonization of the New World and the impact of these communities on cultures of Latin America and the Caribbean.
ABS 302. Hip Hop as Global
Culture (5). This course examines Africana and black diasporic connections through popular culture using hip hop music. Hip hop allows us to study and understand contemporary history of black youth in Africa, Europe, and North America.
Upon successful completion of this course, the student will be able to:
Describe the historical processes that led to the rise and spread of hip hop music across the world. Identify the social, political, economic and cultural characteristics of hip hop in Africa, Europe and North America
Analyze and synthesize primary and secondary sources related to the origins and spread of hip hop music to all parts of the world in order to put forward well-supported argument on their own Explain the interaction of hip hop with other cultures by preparing clearly-written and clearly presented argument, including a thesis and sufficient historical evidence Describe the various variegated forms of hip hop across the world and identify differing explanations of hip hop as an agent of social change and the connections between cause and effect in the discipline of history
ABS 305. 20th Century Black Women's Literature (Put on reserve 9/16/16) (4). This seminar reads poetry, fiction, memoir, and criticism by and about black American women from 1919 to the 1990s. (Put
on reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Prerequisite: ENG 101.

Upon successful completion of this course, the student will be able to:
Describe the various variegated forms of hip hop across the world and identify differing explanations of hip hop as an agent of social change and the connections between cause and effect in the discipline of history
Identify the critical and theoretical concerns of black female authors, particularly in relation to questions of history and memory, narrative and resistance.
Identify and evaluate the impact of larger historical events in the United States on the literature of black American women. Analyze the genre choices authors make and themes on which they focus when writing about the black female experience.
ABS 308. African American Folklore (5). This course focuses on various elements of African American Folklore; including, but not limited to folktales, folk life, music, dance, and material culture. Upon successful completion of this course, the student will be able to:
Identify and discuss the development of the study of African American Folklore from its formal inception to today.
Describe the most popular definitions of Folklore and
"folk", as well as methods of data collection in folklore. Describe how Folklore is used by individuals and groups to identify themselves and others. Illustrate the difference between comparative methods used by Folklorists and those used by other fields of study. Distinguish linguistic specificities in Oral Traditions such as dialect, grammar and syntactical variations, and regional vocabulary.

Analyze, discuss and identify the structure and function of various types of African American Oral Traditions. Identify and discuss the persistence of African American Folklore as it exists through customs, medicines, food ways, music, dance, games and material culture. Implement the requirements, methodology and best practices for conducting Folklore field research.
ABS 309. Race and Sports: Freedom, Power, and Difference (4). Sports in the United States present a fascinating paradox: while athletics offers many young people of diverse backgrounds unparalleled opportunities for self-advancement, intercollegiate and professional sports in many respects reproduce or intensify prevailing images and stereotypes around race, difference, and identity. Upon successful completion of this course, the student will be able to:
Analyze how sports shape and reinforce definitions of race, gender, sexuality, and social status in American society. Explain the impact of African American athletes on collegiate and professional sports organizations.
Delineate the commodification of the African American athlete in intercollegiate and professional sports Explain how African American athletes have used sports as a vehicle for protest, assimilation, and social mobility.
ABS 396. Individual Study
(1-6). May be repeated if subject is different.
ABS 397. Honors (1-12). Prerequisite: admission to department honors program. ABS 398. Special Topics (16). May be repeated for credit. ABS 399. ABS Seminar (3-5). With faculty mentoring and direction, students conduct in depth study of issues and events impacting African
descendants in the United States, the Caribbean, Latin America, and other areas of the African Diaspora. Students present research and projects to SOURCE, academic meetings, ABS faculty, and student audiences. Prerequisite: ABS 210.

ABS 400. Race and
Literature (4). Course reviews theory and use of "race" in the construction of knowledge and in English canonical texts. Upon successful completion of this course, the student will be able to:
Examine the cultural and ideological base of the idea of "races" in human history. Analyze and interrogate the reconstruction and production of knowledge under the political and institutional power structures of colonialism and slavery.
Identify specific areas where the politics of "race, constitute the production and experience of art, literature, and humanistic knowledge.
ABS 496. Individual Study (1-6). May be repeated if subject is different.
ABS 497. Honors (1-12). Prerequisite: admission to department honors program.
ABS 498. Special Topics (1-
6 ). May be repeated if subject is different.
ABS 499. Seminar (1-5). May
be repeated if subject is different.

## ACCT 251. Financial

Accounting (5). An
introduction to the theory and
practice of accounting and financial reporting. Topics include the accounting cycle, financial statements, and corporate accounting for assets, liabilities, equities, revenues and expenses.
Upon successful completion of this course, the student will be able to:
Provide definitions for key terms
Prepare the journal entries to record transactions
Prepare the journal entries to
adjust the accounting records

Prepare financial statements from the accounting worksheet (trial balance)
Prepare the journal entries to close the temporary accounts Calculate and interpret key financial ratios using the balance sheet and income statements
Demonstrate knowledge of periodic and perpetual inventory system Demonstrate knowledge of multiple inventory methods Demonstrate ability to work with petty cash and cash transactions
Demonstrate knowledge of uncollectible account transactions
Demonstrate knowledge of fixed assets and intangible assets
Demonstrate knowledge of corporate transactions
ACCT 252. Managerial
Accounting (5). An
introduction to the use of accounting information by managers. Topics included the use of accounting information for planning and control, performance evaluation, decision making, and the statement of cash flows, along with financial statement analysis. Prerequisite: C- or higher in ACCT 251.
Upon successful completion of this course, the student will be able to:
Provide definitions for key terms
Calculate inventory costs in a manufacturing environment. Demonstrate knowledge of cost accounting systems.
Demonstrate knowledge of cost behavior
Demonstrate knowledge of cost-volume-profit (CVP) analysis.
Demonstrate knowledge of a simple budget situation for a company
Demonstrate knowledge of standard costs
Demonstrate knowledge of decentralized operations Demonstrate ability to make short-term decisions

Demonstrate knowledge of capital investment decisions ACCT 296. Individual Study (1-6).
ACCT 298. Special Topics (1-
6). May be repeated if subject is different.
ACCT 299. Seminar (1-5).
May be repeated if subject is different.
ACCT 301. Accounting Skills for Non-Business Majors (5).
An overview of accounting, tax, and finance from the viewpoint of the financial statement user. Students will learn basic financial language and analysis skills for assessing enterprise performance. Customized topics for students in various majors. Course will be offered every year (Fall, Winter, Spring and Summer).
The course is recommended for any individuals not majoring in accounting or business. This course is not open to accounting or business administration majors. Upon successful completion of this course, the student will be able to:
Outline the basic financial statements, explain their purposes, and describe how people use them to assess the performance and the value of for-profit and not-for-profit enterprises.
Prepare a financial analysis of a public company in your field of study or an industry of interest to you. Calculate key financial ratios, formulate questions on the basis of these ratios, and explain how they can be used to solve business problems.
Describe the politcal origins and social implications of accounting and tax regulation, and the importance of ethical decision-making. Describe the concept of internal controls and give examples.
Describe the basic principles of personal and corporate taxation and perform basic tax calculations.
Distinguish between debt and equity financing, describe the rights of creditors and
shareholders (owners), and explain the pros and cons of financing a business with debt versus equity.
Demonstrate how managerial accounting information, such as fixed and variable costs, can be used to solve business problems and create value for various constituents.
ACCT 303. Tax Planning for Personal Finance (5).
Examines the topic of income tax planning and forecasting for individual clients and small business owners. Uses a case study approach to integrate the material and apply it to personal financial planning situations. Emphasizes the evaluation of financial alternatives. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: a grade of C or higher in ACCT 251 or ACCT 301.

Upon successful completion of this course, the student will be able to:
Compare and contrast the fundamental components of the income tax system including filing forms, filing status, income, exemptions, exclusions, deductions, adjustments, credits, and tax rates.
Explain how a progressive income tax system works and contrast it with other tax systems
Differentiate between the organizational form and the tax treatment of income, expenses, payroll and wage taxes for sole proprietorships, partnerships, LLPs, LLCs, S- corps and Ccorps.
Explain the basic income tax compliance rules for trusts and estates including when a return is required and how it is filed. Contrast the trust and estate income tax rules with personal income tax rules.
Explain how a client will report income and appropriate deductions from a trust or estate on his income tax return.

Differentiate between tax avoidance and tax evasion. Identify income shifting techniques (transfer and timing) and explain how income shifting benefits a taxpayer.
Compare the cash flow impact of receiving tax- exempt or tax-sheltered income to taxable income.
Explain how deduction clustering results in a lower tax liability.
Distinguish between different
investment strategies that can be used to manage tax liability; e.g., tax loss harvesting, bond swaps, etc.
Differentiate between the taxation of capital gains and ordinary income, including the difference in applicable tax rates.
Explain the special rules regarding capital gains and losses on a principal residence. Explain the tax implications of supporting an elderly parent or adult child.
Select the appropriate credit/deduction to use for post-secondary education costs.

## ACCT 305. Cost Accounting

(5). Economics of cost accounting; industrial analysis, production control through costs, types of cost systems, and burden application. Prerequisites: a grade of C or higher in ACCT 251 and ACCT 252, and a pre-major or major or minor or certificate student in a College of Business program; or admission to the MPA program.
Upon successful completion of this course, the student will be able to:
Provide definitions for key terms.
Calculate inventory costs in a manufacturing environment. Demonstrate knowledge of cost accounting systems. Demonstrate knowledge of cost behavior.
Demonstrate knowledge of cost- volume-profit (CVP) analysis.

Demonstrate knowledge of a simple budget situation for a company.
Demonstrate knowledge of standard costs.
Demonstrate knowledge of decentralized operations. Demonstrate ability to make short-term decisions Demonstrate knowledge of capital investment decisions

## ACCT 340. Income Tax

Accounting I (5). Introduction to income taxation of corporations, partnerships, and individuals with an emphasis on tax compliance, planning, and computer-based tax research. Formerly ACCT 346, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: a grade of C or higher in
ACCT 251 and ACCT 252, and a pre-major or major or minor or certificate student in a College of Business program. Upon successful completion of this course, the student will be able to:
Recognize how tax systems are designed and how the legislative, executive, and judicial branches influence the design and implementation of U.S federal tax laws. Locate and interpret primary authoritative sources of tax information using web-based services.
Apply U.S. tax law to meet compliance requirements. Identify and analyze the impact of U.S. income taxation on corporate financial reporting. Apply U.S. tax law to identify tax planning opportunities. Communicate the results of research, compliance, and planning efforts, to audiences with different levels of expertise.

## ACCT 350. Intermediate

Accounting I (5). An in-depth study of financial accounting theory and practice. The first of a three-course intermediate sequence, this course is intended for the student who requires more than principles level accounting coverage.

Prerequisite: a grade of C or higher in ACCT 251 and ACCT 252, and a pre-major or major or minor or certificate student in a College of Business program; or admission to the MPA program.
Upon successful completion of this course, the student will be able to:
Demonstrate intermediate-level competency in practicing all phases of the accounting cycle. Demonstrate intermediate-level competency in the accounting for specific topics designated for this first of a three-course intermediate sequence. These topics are:
The demand for and supply of financial accounting information Financial reporting: its conceptual framework; Review of a company's accounting system; The balance sheet and statement of shareholders' equity
The income statement and the statement of cash-flows;
Time value of money; Cash and receivables; Inventories: cost, measurement and cost flow assumptions; Inventories: special valuation issues.
Identify ethical dilemmas that likely will confront the accounting professional. With reference to the topics listed in outcome two above, demonstrate intermediate-level competency in the application of U.S. accounting standards and the integration of international accounting standards.

## ACCT 351. Intermediate

Accounting II (5). The second of a three-course intermediate sequence, this course continues ACCT 350, covering complex topics in accounting and financial reporting. Prerequisite: a grade of C or higher in ACCT 350, and a pre-major or major or minor or certificate student in accounting; or admission to the MPA program.

Upon successful completion of this course, the student will be able to:
Demonstrate intermediate-level competency in practicing all phases of the accounting cycle. Demonstrate intermediate-level competency in the accounting for specific topics designated for this second of a threecourse intermediate sequence. These topics are: current liabilities and contingent obligations property, plant, and equipment: acquisition and subsequent investments depreciation, depletion, impairment, and disposal of property, plant and equipment intangibles
investments and long-term receivables
Time value of money;
Cash and receivables;
financing liabilities: bonds and long-term notes payable contributed capital Identify ethical dilemmas that likely will confront the accounting professional. With reference to the topics specified in Learner Outcome 2 above, demonstrate intermediate-level competency in the application of U.S. accounting standards and the integration of international accounting standards.
ACCT 352. Intermediate
Accounting III (5). The third of a three-course intermediate sequence, this course continues ACCT 351, covering complex topics in accounting and financial reporting. Also included are special topics and existing/emerging issues. Prerequisite: a grade of C or higher in ACCT 351, and a pre-major or major or minor or certificate student in
accounting; or admission to the MPA program.
Upon successful completion of this course, the student will be able to:
Demonstrate intermediate-level competency in practicing all phases of the accounting cycle. Demonstrate intermediate-level competency in the accounting
for specific topics designated for this second of a threecourse intermediate sequence. These topics are: Retained earnings and earnings per share
Advanced issues in revenue recognition
Accounting for income taxes Accounting forpost- retirement benefits
Accounting for leases
More in-depth examination of the statement of cash flows Accounting for changes and errors
Identify ethical dilemmas that likely will confront the accounting professional. With reference to the topics specified above in Learner Outcome 2, demonstrate intermediate-level competency in the application of U.S. accounting standards and the integration of international accounting standards.
ACCT 396. Individual Study (1-6).
ACCT 397. Honors (1-12).
Prerequisite: admission to department honors program.
ACCT 398. Special Topics (16). May be repeated if subject is different.
ACCT 399. Seminar (1-5).
May be repeated if subject is different.
ACCT 405. Advanced Cost
Accounting (5). This course reviews, enhances, and extends concepts learned in ACCT 305. The focus is on assessing the information needs of end users in the organization, then creating reports (including Excel workbooks) to address those needs. ACCT 405 and ACCT 505 are layered courses; students may not receive credit for both. Prerequisites: a grade of C or higher in ACCT 305 and admission to the accounting major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in
each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Reinforce and enhance knowledge of traditional first course (ACCT 305) topics. Management accountant's role
Different costs for different purposes
Cost-volume-profit analysis
Job (order)costing
Activity-based costing
andmanagement
Master budget
Responsibility accounting Flexible budgets and direct cost variances
Flexible budgets and overhead cost variances
Inventory costing and capacity analysis
Determining how costs behave
Decision making and relevant
information
Process costing
Extend knowledge and
demonstrate intermediate-level competence with second course (ACCT 405) concepts.
Pricing decisions and cost management
Balanced scorecard and strategic profitability analysis Customer profitability and sales variance analysis
Allocation of support department costs
Cost allocation related to joint products and by-products
Accounting for spoilage,
rework and scrap
Balanced scorecard related to
quality and theory of
constraints
Inventory management and JIT
planning and control
Cost of capital and capital
budgeting
Transfer pricing
Performance measurement
Practice basic/intermediate
Excel spreadsheet management
accounting applications related to:
Master budgeting
Cash budgeting
Cost of capital estimation
Capital budgeting
Process costing cost of
production reports

Variance analysis
ACCT 430. Governmental and Non-profit Accounting
(5). Accounting and budgetary controls for governmental units and non-profit service organizations, including educational institutions (from school districts to universities) and hospitals. Emphasis is on the advantages, uses, disadvantages, and differences in fund accounting. ACCT 430 and ACCT 530 are layered courses; students may not receive credit for both. Prerequisites: (a grade of C or higher in ACCT 351 or concurrent enrollment in ACCT 351 with a cumulative CWU GPA greater than 3.0); AND admission to the accounting major AND completion of the college of business foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172
or MATH 173 and ECON 201)
with a minimum grade of C - in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Develop and implement accounting and financial management procedures appropriate for governmental entities. The focus is on state governments and the political subdivisions thereof. Develop and implement accounting and financial management procedures for non- government assisted not-for-profit organizations. The focus is on volunteer health and welfare organizations, such as the American Red Cross. Develop and implement accounting and financial management procedures for selected special non-for-profit entities: public/private colleges and universities, and public/private hospitals and other health care providers. Develop audit procedures for governmental and nonprofit entities.

ACCT 441. Advanced Tax 1:
Individual (5). Study of principles of federal income taxation of
individuals. Focuses is on individual income tax compliance, such as gross income, deductions, credits, property transactions, retirement income, alternative minimum tax, and selfemployment tax. ACCT 441 and ACCT 541 are layered courses; students may not receive credit for both. Formerly ACCT 446, students may not receive credit for both. Course will be offered every year (Fall, Spring).
Prerequisites: a grade of C or higher in ACCT 340 and (a) admission to a Tax Certificate Program or (b) admission to the accounting major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Locate and interpret primary and secondary authoritative sources of tax information using web-based services. Apply U.S. tax law to meet compliance requirements Apply U.S. tax law to identify tax planning opportunities Communicate the results of research, compliance, and planning efforts, to audiences with different levels of expertise.
ACCT 442. Advanced Tax 2: Corporations and other entities (5). Study of principles of federal income taxation of corporations and pass-through and their investors. Coverage includes formation, distributions, withdrawals, and dissolution. Course introduces income tax issues concerning estates, trusts, exempt organizations, retirement plans,
and farmers. ACCT 442 and ACCT 542 are layered courses; a student may not receive credit for both. Course will be offered every year (Winter). Prerequisite: Completion of ACCT 303 or ACCT 340 with a minimum grade of C .
Upon successful completion of this course, the student will be able to:
List the preliminary actions and documents necessary to prepare income tax returns for business entities, trusts, and estates
Compute and define all types of business income
Distinguish the tax treatment of C corporations, S corporations, Partnerships, Trusts, and Estates
Summarize the various retirement plans available to employees
Apply the law as it relates to tax credits and deductions available to businesses Classify property exchanges as voluntary, involuntary, taxable, or tax-free
Identify the most common tax planning strategies available to businesses
Identify and apply key tax provisions applicable to farmers
Recall the process to apply for tax-exempt treatment Evaluate a tax-exempt organization's compliance with tax filing requirements Evaluate a trust or estate's compliance with tax filing requirements
ACCT 443. Advanced Tax 3: Practice and Procedure (5).
Study of rules of conduct and ethics in tax practice, such as competency, conflicts of interest, penalties, and sanctionable acts. Coverage of federal tax procedure, statute of limitations, notions of evidence, and record maintenance. ACCT 443 and
ACCT 543 are layered courses; students may not receive credit for both. Course will be offered every year (Spring).
Prerequisite: Completion of a
foundation tax course
equivalent to ACCT 303 or
ACCT 340 with a minimum
grade of C .
Upon successful completion of
this course, the student will be able to:
Explain what constitutes
practice before the IRS
List the categories of professionals authorized to practice before the IRS, their
respective rights and
responsibilities
Identify sanctionable acts by
tax practitioners
Apply rules of professional conduct and applicable penalties
Demonstrate mastery of key provisions in Treasury
Department Circular 230
Protect Private Taxpayer
Information through proper handling and storage Maintain records according to professional rules and best practice standards
Experience the process of representing a taxpayer before the IRS using multiple scenarios.
ACCT 450. Advanced
Accounting (5). Accounting theory and practice for business, combinations and consolidated financial statements, foreign currency transactions and translation, partnerships, and advanced special topics. ACCT 450 and ACCT 550 are layered courses; students may not receive credit for both. Prerequisites: a grade of C or higher in ACCT 351 and admission to the accounting major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Students will be able to prepare consolidated financial statements (includes outside
ownership and intra-entity asset transactions)
Students will be able to work with foreign currency transactions hedging
Students will be able to translate foreign currency financial statements Students will be able to prepare financial statements for partnerships
ACCT 455. Accounting Information Systems (5). Accounting information system development process and related information systems technologies. Includes the application, control, and audit of accounting information systems. ACCT 455 and ACCT 555 are layered courses; students may not receive credit for both. Prerequisites: a grade of C or higher in ACCT 350, and admission to accounting major and completion of the College of Business Foundation courses (ACCT 251, ACCT 252, BUS 221, BUS 241, ECON 130, ECON 201, MATH 153) with a minimum C- grade in each course and a minimum cumulative GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Students will be able to explain the objectives and processes of each accounting transaction cycle and interpret flowcharts and other graphical documentation of those cycles. Students will be able to explain the objectives and processes of each accounting transaction cycle and interpret flowcharts and other graphical documentation of those cycles. Students will be able to identify the key components and processes of manual and computerized accounting information systems. Students will be aware of current issues and emerging technologies that affect the evolution of accounting information systems in a global economy mediated by networked digital technologies.

ACCT 460. Auditing (5).
Auditor's functions and responsibilities. Evaluation of the system of internal control, the determination of appropriate auditing procedures, and the extent of their application. Prerequisites: (a grade of C or higher in ACCT 352 or concurrent enrollment in ACCT 352 with a cumulative CWU GPA greater than 3.0); AND admission to the accounting major AND completion of the college of business foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS
241 and MATH 153 or MATH
154 or MATH 170 or MATH
172 or MATH 173 and ECON
201) with a minimum grade of

C - in each course and a
minimum collegiate GPA of 2.25 .

Upon successful completion of this course, the student will be able to:
Provide definitions for key audit terms
Prepare narratives and flowcharts to document systems and determine the nature of audit tests
Determine and prepare appropriate audit evidence and documentation
Identify the types of audit
reports and opinions
Distinguish ethical from
unethical behavior in the audit environment
ACCT 461. Fraud
Examination (5). Detection and prevention of financial statement fraud and other forms of business fraud. ACCT 461 and ACCT 561 are layered courses; students may not receive credit for both. Prerequisites: a grade of C or higher in ACCT 351 and admission to the accounting major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH
170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each
course and a minimum collegiate GPA of 2.25.. Upon successful completion of this course, the student will be able to:
Be able to explain each element of the fraud triangle Be able to identify the types of fraud from different scenarios
Be able to interview an individual suspected of fraud and request a signed confession Be able to properly collect and preserve fraud examination evidence for trial
Be able to prepare a fraud report

## ACCT 475. International

Accounting (5). Explores the formulation and application of accounting principles in other industrialized countries. Particular emphasis directed toward the harmonization of accounting principles between the U.S. and other countries. ACCT 475 and ACCT 575 are layered courses; students may not receive credit for both. Prerequisites: a grade of C or higher in ACCT 351 and admission to the accounting major AND completion of the College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C- grade in each
course and a minimum
collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Explain the nature and scope of international accounting Identify the role that political, cultural, social, legal, and economic variables play in the development and practice of accounting in an international environment
Analyze the financial impact of foreign currency exposure, taxation, and transfer pricing issues.
Explain the financial impact of significant differences between GAAP and IFRS

Reformat and restate financial statements from US GAAP to IFRS and vice versa
ACCT 484. Professional Writing and Speaking for the Accountant (5). Develop written and verbal communications skills for practical application in public, private, and governmental accounting fields. Includes interviewing techniques, preparation and presentation of group and individual reports, and preparation of resumes, letters, memos, and work papers. ACCT 484 and ACCT 584 are layered courses; students may not receive credit for both. Prerequisites: (a grade of C or higher in ACCT 351
AND admission to the accounting major AND completion of the college of business foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum grade of C - in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Be able to communicate about
professional issues in a manner that is appropriate. For different audiences;
Be able to use computers for perform career-oriented tasks. Be able to discuss the professional responsibilities and challenges in various career paths.
ACCT 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. (Student should have an overall GPA greater than a cumulative 2.0 in order to get internship credit.) Note: While ACCT 490 can nolonger be used as an
accounting elective in the accounting major, it can still be used toward the 20 hours of internship credit allowed by the university and for the 225 -hour requirement for the CPA examination. May be repeated for credit. Grade will either be S or U. Prerequisites: prior approval and admission to the accounting major.

## ACCT 492. Volunteer

Income Tax Assistance (2).
Preparation of tax returns of low income taxpayers, including tax return preparation training. Grade will either be S or U. ACCT 492
and ACCT 592 are layered courses; a student may not receive credit for both. Course
will be offered every year (Winter). May be taken concurrently with ACCT 303 or ACCT 340. Prerequisites: ACCT 303 or ACCT 340 and admission to the accounting major or a Tax Certificate; or permission of the department chair.
Upon successful completion of this course, the student will be able to:
Provide definitions for key tax terms
Prepare simple individual income tax returns
ACCT 493. Applied
Accounting Techniques (3). Under direct supervision of the instructor, assist in answering accounting students' questions and aid in completion of homework for a minimum of six hours weekly. Other tasks as assigned. Grade will either be $S$ or $U$. Prerequisite: admission to the accounting major.
ACCT 496. Individual Study
(1-6). May be repeated for credit. Prerequisite: admission to the accounting major.
ACCT 497. Honors (1-12). Prerequisite: admission to department honors program.
ACCT 498. Special Topics (16). May be repeated for credit under a different subtitle. Prerequisite: admission to the accounting major.

ACCT 499. Seminar (1-5).
Repeatable for credit under different subtitle. Prerequisite: admission to the accounting major.
ADMG 201. Introduction to
Business (3). Functions, practices, and organization of the business enterprise. Course
will be offered every year (Fall, Winter, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the purpose of business and where it fits in the field of IT management and any industry career
Identify careers and opportunities in selling. Identify the functional areas of business and how they interrelate.
Demonstrate understanding of the impact of legal, social, economic, and entrepreneurial aspects of business on the business environment. Demonstrate the importance of international business.
Demonstrate the various forms of business organizations - sole proprietorships, partnerships, corporations, and cooperatives and how they operate. Demonstrate basic understanding of the ethical and legal issues in business.
ADMG 271. Business Math
Applications (4). Business and merchandising mathematics applications. Course will be offered every year (Fall, Winter, Spring, and Summer). Upon successful completion of this course, the student will be able to:
Apply percentages to specific business decisions. Calculate discounts, markups, and markdowns. Calculate payroll taxes. Interpret interest, promissory notes, future and present values.
Calculate finance charges, APR, and finance charge rebates.

Interpret mortgage payments, closing costs, and housing ratios.
Interpret life, property, and vehicle insurance.
Employ business statistics and prepare data presentations.
ADMG 298. Special Topics (1-6). May be repeated if subject is different.
ADMG 299. Seminar (1-5).
May be repeated if subject is different.
ADMG 302. Financial Analysis for Administrative and IT Support (5). This course addresses the financial analysis functions necessary for an administrative and IT support manager to complete requested financial documents. Administrative and IT support staff must understand the basis of financial accounting.
Prerequisites: ADMG 271 and junior standing.
Upon successful completion of this course, the student will be able to:
Define accounting terminology and concepts.
Analyze and develop income statements as they pertain to the organization as a whole, but more, specifically the income statement within the administrative and IT managers reporting functions. Analyze and develop balance sheets as they pertain to the organization as a whole, but more specifically the balance sheet as it pertains to IT department.
Explain and interpret cash flow analysis as it pertains to the IT or administrative manager and his/her specific department. Develop profitability ratios, leverage rations, liquidity rations, efficiency rations, and ration relationships as they pertain to the IT department and development of IT department related reports. Explain and analyze return on investment (understanding how to determine ROI and the role it plays in IT project
management).
Interpret leading versus
lagging indicators as
specifically related to the IT
and administrative.
ADMG 371. Administrative Management (4).
Administrative management techniques and practices. Upon successful completion of this course, the student will be able to:
Define the functions of administrative management and describe typical activities performed in each of these functional areas
Describe the six guiding principles of management Distinguish between centralized and decentralized management authority Define problem-solving and list the main factors in the problem-solving environment and their relationships
Develop an effective orientation program for new employees
Describe and develop an effective program for selection of new employees
Describe government regulations that influence the employment process Explain several theories of motivation
Identify the objectives of salary
administration programs
Perform a salary program
Explain the major
characteristics of the trends in labor-management relations Identify major office personnel problems and corrective approaches
Identify the process to improve office communication
ADMG 372. Leadership and
Supervision (4). Develop
leadership techniques and behavioral traits to improve productivity of supervisors and leaders in the workplace, and enhance interpersonal skills for career success.
Upon successful completion of this course, the student will be able to:
Apply major leadership theories (e.g. situational, transformational)
Articulate and Identify differences between management and leadership

Identify personal traits and characteristics associated with effective leaders applied to actual leadership scenarios Assess, explore, apply, and synthesize personal leadership traits and skills, and general professionalism potential Apply, and evaluate mechanisms that enhance positive morale and motivational effectiveness Apply the mechanisms that enhance effectiveness in building, motivating, and leading teams Apply the responsibilities and limits of leadership on supporting and encouraging an ethical organizational and/or working culture
Identify and document the relationships and differences between organizational mission, vision, core values, strategic planning, and assessment
Assess and apply change theory related to organizations (e.g. Kotter, The Four Frames) Observe and facilitate the application of techniques for facilitating effective persuasion, problem-solving, and conflict resolution in relation to interpersonal communication skills with direct reports, co-workers, and supervisors
Articulate the benefits of cultural competency and diversity in the workplace
Apply, articulate, and evaluate
progressive discipline guidelines
Develop and document a
Professional Development Plan
ADMG 373. Training and
Development for
Administrative and IT
Support (4). This course provides students with an overview of the employee training and development process--a key component to employee success. Development and delivery of a training program will be the outcome of this course.
Prerequisite: AMDG 371 and
junior standing or above.

Upon successful completion of this course, the student will be able to:
Identify principles of training and training cycles Design a training program utilizing frameworks based on organizational needs Identify the types of training, and advantages and disadvantages of various training delivery methods Implement and teach to various learning styles in training presentations
Conduct a training sessions and measure the effectiveness of training through after action review
Identify and explain the advantages of training methods such as mentorships, career development plans
ADMG 374. Project Management (5).
Development of skills in the core project management areas; scope management, time management, cost management, quality management. Formerly IT 374, students may not receive credit for both. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Develop project management
(PM) skills and knowledge
Apply and demonstrate
concepts/tools/skills associated
with PM
Develop
planning/organization/manage ment skills
Develop writing skills
Develop teamwork skills
Develop presentation skills
ADMG 385. Business
Communications and Report
Writing (5). Planning and writing skills for business letters, memoranda, employment, and reports. Prerequisites: ENG 102 or a direct transfer degree, and junior standing or above. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of composing and writing
effective styles of business correspondence.
Demonstrate proper use of language mechanics, including grammar, spelling, and punctuation as applied in business communications. Demonstrate an understanding of letter and memoranda formats.
Demonstrate an understanding of effective resume, application letter, and follow-up letter styles.
Demonstrate an understanding of researching and writing a business report. Develop interpersonal and group communication skills.
ADMG 396. Individual Study (1-6). May be repeated if subject is different.
ADMG 397. Honors (1-12).
Prerequisite: admission to department honors program.
ADMG 398. Special Topics
(1-6). May be repeated if subject is different.
ADMG 399. Seminar (1-5). May be repeated if subject is different.
ADMG 410. Comparative Global Studies in ITAM I (4).
This course offers the student an opportunity to study and experience various industries operating in another country or region with an emphasis on global information technology, retail management, entrepreneurship, and leadership. Acceptance to study abroad trip. Course will not have an established scheduling pattern. Grade will either be $S$ or $U$. Permission by department.
Upon successful completion of this course, the student will be able to:
Using theories of leadership, compare and contrast leadership and management styles between the U.S. and the foreign countries. In particular, hypothesize WHY you think
the U.S. and foreign countries have developed their particular style of leadership and management.

Identify at least 5 differences between B2C in the U.S. and B 2 C in the foreign country. Identify at least 2 forms of IT used in the foreign country that have not been widely adopted in the U.S. You can also identify at least 2 forms of IT used in the U.S. that have not been widely adopted in the foreign country. Identify at least 5 differences between B2B and B2C
communications in the U.S. and B2B and B2C communications in the foreign country.
Extrapolate from your understanding of the history of the foreign country how that history has affected both business and non-business relationships.
ADMG 412. Comparative
Global Studies in ITAM II
(4). This course offers the student an opportunity to study and experience cultural differences and similarities in another country or region from the perspective of IT and administrative management. Acceptance to study abroad trip. Grade will either be S or U. Permission by department. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Using the LESCANT model, analyze culture and communication patterns of a foreign country. Summarize the cultural differences between the U.S. and the foreign countries.
Summarize these differences in both the business environment and the cultural (non-business) environment.
Based on an understanding of the U.S. and the foreign
countries, hypothesize the differences in diversity, particularly gender, age, and disability diversity. Learn at least 5 common terms in the language of the foreign countries.
State the differences between the U.S. and foreign countries
economic and political systems (current or historical) and how those systems effect business.
ADMG 424. Administrative Management Policy (4).
Administrative management policies dealing with technology and innovation; the analysis, decision making, implementation, and control of these policies; the intent and core competencies of an organization; and the competitive integration of technology.
Prerequisites: ADMG 371, ADMG 385 and senior standing.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of contemporary issues in strategic administrative management and organizational policy. Demonstrate knowledge of the framework for strategy through the process of analysis, decision making, implementation, and control. Evaluate the intent and core competencies of an organization. Analyze the resources and capabilities necessary to complete in the domestic and international environment. Discuss how the culture and constant change impacts administrative management. Demonstrate understanding of the ethical and legal issues in strategic administrative management.
ADMG 471. Leading Change
(4). An in-depth study of organizational dynamics, as applied to organization-wide interventions, designed to improve organizational functioning and to implement change in the organization. The course will include techniques for developing and improving organizations through organizational assessment and diagnosis of culture and processes.
Prerequisites: ADMG 371,
ADMG 372, and senior status.

Upon successful completion of this course, the student will be able to:
Use the LESCANT model to analyze culture and communication patterns of a foreign country. Summarize the cultural differences between the U.S. and the foreign countries. Summarize differences in both the business environment and the cultural (non-business) environment
Based on an understanding of the U.S. and the foreign countries, hypothesize the differences in diversity, particularly gender, age, and disability diversity. Learn at least 5 common terms in the language of the foreign countries.
State the differences between the U.S. and foreign countries economic and political systems (current or historical) and how those systems effect business.
ADMG 474. Executing Project Management I (4).
This course introduces students to the principles defined by the Institute Project Management Body of Knowledge
(PMBOK). Students will examine the PM process groups of initiating, planning and executing while developing a project plan. Prerequisite: ADMG 374. Upon successful completion of this course, the student will be able to:
Explain the difference between process groups and knowledge areas.
Apply the project planning steps in the appropriate order. Analyze methods for managing project scope.
Apply best practices for managing project schedule. Evaluate the critical path of a project.
Demonstrate cost management through project estimating and budgeting.
ADMG 475. Executing
Project Management II (4).
This course is a continuation of Executing Project Management

- I. Students will explore
quality, human resources, communications, risk and procurement as they continue to build their project plan. Prerequisite: ADMG 474.
Upon successful completion of this course, the student will be able to:
Determine methods for managing quality in a project. Develop a human resources plan.
Evaluate effective team building techniques for project teams.
Discuss the importance of leadership to the success of a project.
Demonstrate effective project communications.
Evaluate project risks and mitigation plans.
Conduct project procurement analysis.
ADMG 476. Managing
Project Uncertainty (4).
Students will learn to handle various forms of project uncertainty. An emphasis will be placed on handling uncertainty across the entire project. Students will work through problems with an emphasis on real-world solutions. Prerequisite: ADMG 475.

Upon successful completion of this course, the student will be able to:
Evaluate how project risk impacts projects in both positive and negative ways.
Apply multiple strategies for identifying, classifying, mitigating, and responding to project risks using both qualitative and quantitative analysis.
Examine how quality influences successful project outcomes.
Evaluate best practices for improving quality within projects.
Demonstrate best practice strategies for project procurement that seek to eliminate negative project risk and improve project quality. Demonstrate how change control can be used to mitigate project uncertainty.

ADMG 477. Project
Performance Reporting (4).
Students will prepare various project performance reports reflective of the status of the project throughout the project lifecycle. An emphasis will be placed on earned value techniques for reporting project performance. Students will learn techniques for effectively presenting complex project data. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: ADMG 475.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of earned value management. Apply earned value management techniques to prepare and deliver project status reports.
Demonstrate the ability to use project management software to prepare project status reporting.
Prepare and deliver complex project data and reports using various software tools and techniques.
ADMG 479. Project
Management Maturity (4).
Students will assess project management maturity processes through the use of established industry best practices. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: ADMG 475. Upon successful completion of this course, the student will be able to:
Apply project management maturity models to evaluate project organizations.
Apply Agile project processes to a given scenario.
Demonstrate how to manage a project across all the project lifecycle.
Evaluate team performance and team building techniques Describe and apply the PMI Code of Ethics and Professional Responsibility to given project scenarios.

ADMG 485. Managerial Communications (3). Advanced written, oral, and non-verbal business communications including proposals, crisis management, international communication, international/domestic etiquette, meeting management, conflict resolution, negotiation, and collaboration. Department reactivated 9/16/15. Prerequisite: ADMG 385. Upon successful completion of this course, the student will be able to:
Create written correspondence;
letters, memos, email, and reports
Demonstrate ability to prepare
and present a persuasive speech
Recognize the basics of business proposals and how they are evaluated Recognize differences in cultural communication patterns
Determine how to adapt business communications for effective international communication Recognize the basics of media and crisis communication Demonstrate strategies for building and maintaining successful communication with employees and customers
ADMG 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Offered summers only. Departmental consent. May be repeated for credit. Grade will either be $S$ or $U$. Prerequisite: RMT 379.
ADMG 491. Workshop (1-6). May be repeated for credit under different subtitle.
ADMG 496. Individual Study (1-6). By permission. May be repeated for credit.

ADMG 497. Honors (1-12).
Prerequisite: admission to department honors program.
ADMG 498. Special Topics
(1-6). By permission. May be repeated for credit under different subtitle.
ADMG 499. Seminar (1-5).
By permission. May be repeated for credit under different subtitle.
ADMG 493A.
Undergraduate Research Practicum (Put on reserve as of $9 / 16 / 15$.) (1-3). Conduct research under direct supervision of a professor with specific learning agreement required. $\mathrm{ADMG} / \mathrm{IT} / \mathrm{RMT}$ 493A are cross-listed courses; students may not receive credit for more than one. May be repeated for a total of 3 credits. Grade will either be S or U . Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
Prerequisite: permission of department chair.
ADMG 493B. Undergraduate
Assistant Practicum (Put on
reserve as of 9/16/15.) (1-3).
Assist in monitoring, supervising, supporting, and tutoring instruction under direct supervision of a professor with specific learning agreements required. ADMG/IT/RMT 493B are equivalent courses; students may only receive credits for one. May be repeated for a total of 3 credits. Grade will either be S or U . Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: permission of department chair.
AFRO 101. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership, professionalism, and an introduction to communicative skills.
Upon successful completion of this course, the student will be able to:
Identify the concepts involved in war

List the roles the Air Force fills within the military/political aspects of war. List the career opportunities available to an Air Force Officer.
List the benefits afforded members of the military Identify productive life skills Demonstrate basic oral and written communication skills
AFRO 102. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership, professionalism, and an introduction to communicative skills.
Upon successful completion of this course, the student will be able to:
Identify the concepts involved in war
List the roles the Air Force fills within the military/political aspects of war.
List the career opportunities available to an Air Force Officer.
List the benefits afforded members of the military Identify productive life skills Demonstrate basic oral and written communication skills AFRO 103. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership, professionalism, and an introduction to communicative skills.
Upon successful completion of this course, the student will be able to:
Identify the concepts involved in war
List the roles the Air Force fills within the military/political aspects of war.
List the career opportunities available to an Air Force Officer.
List the benefits afforded members of the military Identify productive life skills Demonstrate basic oral and written communication skills
AFRO 201. The Evolution of USAF Air and Space Power
(1). Through historical
examples, we examine the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.
Upon successful completion of this course, the student will be able to:
State the key terms and definitions used to describe air and space power
List the events, leaders, and technical developments surrounding the evolution of USAF aerospace power. Demonstrate basic verbal and written communication skills. Identify the Air Force Core Values and examples of their use throughout the evolution of USAF aerospace power.
AFRO 202. The Evolution of USAF Air and Space Power
(1). Through historical examples, we examine the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.
Upon successful completion of this course, the student will be able to:
State the key terms and definitions used to describe air and space power List the events, leaders, and technical developments surrounding the evolution of USAF aerospace power. Demonstrate basic verbal and written communication skills. Identify the Air Force Core Values and examples of their use throughout the evolution of USAF aerospace power.
AFRO 203. The Evolution of USAF Air and Space Power
(1). Through historical examples, we examine the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.
Upon successful completion of this course, the student will be able to:
State the key terms and definitions used to describe air and space power

List the events, leaders, and technical developments surrounding the evolution of USAF aerospace power. Demonstrate basic verbal and written communication skills. Identify the Air Force Core Values and examples of their use throughout the evolution of USAF aerospace power.
AFRO 296. Individual Study
(1-3). May be repeated for credit.
AFRO 298. Special Topics (1-
6). May be repeated for credit under different subtitle.
AFRO 299. Seminar (1-5).
May be repeated if subject is different.
AFRO 301. Air Force
Leadership Studies (3).
Provides leadership, management fundamentals, professional knowledge, Air
Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer.
Upon successful completion of this course, the student will be able to:
Apply listening, speaking, and writing skills in Air Force peculiar formats and situations with accuracy, clarity, and appropriate style.
Explain selected concepts, principles, and theories of quality Air Force leadership and management. Discuss selected individual leadership skills and personal strengths and weaknesses as applied in an Air Force environment.
Describe selected Air Force
officer's duties and
responsibilities as a
subordinate leader.
Explain the responsibility and authority of an Air Force officer.
Explain the Air Force officer's responsibilities in the counseling and feedback process.
Discuss and apply the concepts of ethical behavior.
AFRO 302. Air Force Leadership Studies (3).
Provides leadership,
management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer.
Upon successful completion of this course, the student will be able to:
Apply listening, speaking, and writing skills in Air Force peculiar formats and situations with accuracy, clarity, and appropriate style.
Explain selected concepts, principles, and theories of quality Air Force leadership and management.
Discuss selected individual leadership skills and personal strengths and weaknesses as applied in an Air Force environment.
Describe selected Air Force officer's duties and responsibilities as a subordinate leader. Explain the responsibility and authority of an Air Force officer.
Explain the Air Force officer's responsibilities in the counseling and feedback process.
Discuss and apply the concepts of ethical behavior.
AFRO 303. Air Force
Leadership Studies (3).
Provides leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer.
Upon successful completion of this course, the student will be able to:
Apply listening, speaking, and writing skills in Air Force peculiar formats and situations with accuracy, clarity, and appropriate style. Explain selected concepts, principles, and theories of quality Air Force leadership and management.
Discuss selected individual leadership skills and personal strengths and weaknesses as
applied in an Air Force environment.
Describe selected Air Force
officer's duties and
responsibilities as a subordinate leader. Explain the responsibility and authority of an Air Force officer.
Explain the Air Force officer's responsibilities in the counseling and feedback process.
Discuss and apply the concepts of ethical behavior.

## AFRO 350. Four-week

Summer Field Training (3).
Organization, operation, and mission of an Air Force base; physical conditioning; applied leadership training and evaluation; marksmanship; survival orientation; and field exercises. May be repeated for credit. Grade will either be S or U.

Upon successful completion of this course, the student will be able to:
Identify background, history, organization, operational concepts and practices, and key terms of the U.S. Air Force -
"Air Force Orientation". Identify effective leadership styles, traits, and practical techniques - "Leadership Training".
Identify background and history of U.S. Air Force
officers - "Officership
Training".
Identify physical fitness requirements of training and operational U.S. Air Force environments - "Physical Training". Identify miscellaneous information and requirementsofthefieldtraininge nvironment - "Miscellaneous". Identify effective personal hygiene techniques -
"Miscellaneous".
AFRO 396. Individual Study
(1-6). May be repeated if subject is different.
AFRO 397. Honors (1-12).
Prerequisite: admission to department honors program.

AFRO 398. Special Topics (1-
6). May be repeated for credit under different subtitle.
AFRO 399. Seminar (1-5).
May be repeated if subject is different.
AFRO 401. National Security
Affairs and Preparation for
Active Duty (3). Examines national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
Upon successful completion of this course, the student will be able to:
Summarize the basic elements of national security policy and process
Explain the air and space power functions and competencies
Discuss selected roles of the military in society and current issues affecting the military profession
Explain selected provisions of the military justices' system Apply listening, speaking, and writing skills using Air Force peculiar formats and situations with accuracy, clarity and appropriate style Describe factors that facilitate a smooth transition from civilian to military life Explain the responsibility, authority, and functions of an Air Force commander
AFRO 402. National Security Affairs and Preparation for
Active Duty (3). Examines national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
Upon successful completion of this course, the student will be able to:
Summarize the basic elements of national security policy and process
Explain the air and space power functions and competencies
Discuss selected roles of the military in society and current
issues affecting the military profession
Explain selected provisions of the military justices' system Apply listening, speaking, and writing skills using Air Force peculiar formats and situations with accuracy, clarity and appropriate style
Describe factors that facilitate a smooth transition from civilian to military life Explain the responsibility, authority, and functions of an Air Force commander
AFRO 403. National Security Affairs and Preparation for
Active Duty (3). Examines
national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
Upon successful completion of this course, the student will be able to:
Summarize the basic elements of national security policy and process
Explain the air and space power functions and competencies
Discuss selected roles of the military in society and current issues affecting the military profession
Explain selected provisions of the military justices' system
Apply listening, speaking, and writing skills using Air Force peculiar formats and situations with accuracy, clarity and appropriate style
Describe factors that facilitate a smooth transition from civilian to military life Explain the responsibility, authority, and functions of an Air Force commander
AFRO 496. Individual Study (1-3). May be repeated for credit.
AFRO 497. Honors (1-12).
Prerequisite: admission to department honors program.
AFRO 498. Special Topics (1-
6). May be repeated for credit under different subtitle.
AFRO 499. Seminar (1-5).
May be repeated if subject is different.

AFRO 101LAB. GMC
Leadership Laboratory (2).
Practical experience in Air
Force customs and courtesies, physical fitness, drills, ceremonies, and opportunities available to commissioned officers. Grade will either be $S$ or U . Two hours weekly plus mandatory physical training. Co-requisite: AFRO 101. Upon successful completion of this course, the student will be able to:

## "AFROTC Orientation"

 Identify AFROTC ranks and insignias, chains of command, honor code, and training principles."Air Force Orientation" Identify Air Force ranks and insignias, chains of command, dress/grooming standards, and traits of the officer environment.
"Customs and Courtesies". Demonstrate proper US flag and Air Force customs and courtesies
"Drill and Ceremonies"
Demonstrate basic drill position and movement. Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Leadership, Followership, and Teamwork". Identify leadership principles. Demonstrate followership principles.
Willingly participate in
teamwork activities.
"Esprit de Corps"
Willingly participate in esprit
de corps activities.
"Weight and Fitness
Standards"
Demonstrate compliance with
Air Force weight and fitness standards.

## AFRO 102LAB. GMC

Leadership Laboratory (2).
Practical experience in Air
Force customs and courtesies, physical fitness, drills, ceremonies, and opportunities available to commissioned officers. Two hours weekly plus mandatory physical
training. Grade will either be S or U. Co-requisite: AFRO 102. Upon successful completion of this course, the student will be able to:
"AFROTC Orientation" Identify AFROTC ranks and insignias, chains of command, honor code, and training principles.
"Air Force Orientation" Identify Air Force ranks and insignias, chains of command, dress/grooming standards, and traits of the officer
environment.
"Customs and Courtesies". Demonstrate proper US flag and Air Force customs and courtesies
"Drill and Ceremonies"
Demonstrate basic drill
position and movement.
Demonstrate Air Force formal
dining, awards, and flag
ceremonies.
Demonstrate parade
procedures.
"Leadership, Followership, and Teamwork".
Identify leadership principles.
Demonstrate followership principles.
Willingly participate in teamwork activities.
"Esprit de Corps"
Willingly participate in esprit
de corps activities.
"Weight and Fitness
Standards"
Demonstrate compliance with
Air Force weight and fitness standards.
AFRO 103LAB. GMC
Leadership Laboratory (2).
Practical experience in Air
Force customs and courtesies, physical fitness, drills, ceremonies, and opportunities available to commissioned officers. Two hours weekly plus mandatory physical training. Grade will either be S or U. Co-requisite: AFRO 103. Upon successful completion of this course, the student will be able to:
"AFROTC Orientation" Identify AFROTC ranks and insignias, chains of command, honor code, and training principles.
> "Air Force Orientation" Identify Air Force ranks and insignias, chains of command, dress/grooming standards, and traits of the officer environment.
> "Customs and Courtesies". Demonstrate proper US flag and Air Force customs and courtesies
> "Drill and Ceremonies" Demonstrate basic drill position and movement. Demonstrate Air Force formal dining, awards, and flag ceremonies.
> Demonstrate parade procedures.
> "Leadership, Followership, and Teamwork".
> Identify leadership principles.
> Demonstrate followership
> principles.
> Willingly participate in
> teamwork activities.
> "Esprit de Corps"
> Willingly participate in esprit
> de corps activities.
> "Weight and Fitness
> Standards"
> Demonstrate compliance with
> Air Force weight and fitness
> standards.
> AFRO 201LAB. GMC
> Leadership Laboratory (2).
> Practical experience in Air
> Force customs and courtesies, drills, ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Grade will either be S or U . Co-requisite: AFRO 201.
> Upon successful completion of this course, the student will be able to:
> "Training Principles" Comprehend and demonstrate principles of the AFOATS
> Training Guide.
> "Dress, Appearance, and Grooming"
> Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
> "Customs and Courtesies"
> Demonstrate proper Air Force
> customs and courtesies.
> "Drill and Ceremonies"

Demonstrate advanced drill position and movement. Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Drill and Ceremonies"
Demonstrate advanced drill position and movement. Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Esprit de Corps" Willingly participate in esprit de corps activities.
"Field Training Preparation"
Identify Field Training emotional stresses.
Demonstrate road guard procedures.
Demonstrate Field Training decorum.
Demonstrate dorm maintenance procedures.
"Weight and Fitness
Standards"
Demonstrate compliance with
Air Force weight and fitness standards.

## AFRO 202LAB. GMC

Leadership Laboratory (2).
Practical experience in Air
Force customs and courtesies, drills, ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Grade will either be S or U . Co-requisite: AFRO 202.
Upon successful completion of this course, the student will be able to:
"Training Principles" Comprehend and demonstrate principles of the AFOATS Training Guide.
"Dress, Appearance, and Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
"Customs and Courtesies" Demonstrate proper Air Force customs and courtesies.
"Drill and Ceremonies" Demonstrate advanced drill position and movement.

Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Drill and Ceremonies"
Demonstrate advanced drill position and movement.
Demonstrate Air Force formal
dining, awards, and flag
ceremonies.
Demonstrate parade procedures.
"Esprit de Corps"
Willingly participate in esprit
de corps activities.
"Field Training Preparation"
Identify Field Training emotional stresses.
Demonstrate road guard procedures.
Demonstrate Field Training
decorum.
Demonstrate dorm
maintenance procedures.
"Weight and Fitness
Standards"
Demonstrate compliance with
Air Force weight and fitness
standards.
AFRO 203LAB. GMC
Leadership Laboratory (2).
Practical experience in Air
Force customs and courtesies, drill and ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Grade will either be S or U .
Co-requisite: AFRO 203.
Upon successful completion of this course, the student will be able to:
"Training Principles"
Comprehend and demonstrate
principles of the AFOATS
Training Guide.
"Dress, Appearance, and
Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
"Customs and Courtesies" Demonstrate proper Air Force customs and courtesies.
"Drill and Ceremonies"
Demonstrate advanced drill position and movement.

Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Drill and Ceremonies"
Demonstrate advanced drill position and movement.
Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Esprit de Corps"
Willingly participate in esprit de corps activities. "Field Training Preparation" Identify Field Training emotional stresses. Demonstrate road guard procedures.
Demonstrate Field Training decorum.
Demonstrate dorm maintenance procedures.
"Weight and Fitness
Standards"
Demonstrate compliance with
Air Force weight and fitness
standards.

## AFRO 301LAB. POC

Leadership Laboratory (2).
Students plan, organize, coordinate, and direct cadet corps activities, enhancing communication, management, and other leadership skills.
Three hours weekly plus mandatory physical training. Grade will either be S or U . Course will be offered every year (Fall). Co-
requisite: AFRO 301.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"
Develop esprit de corps through participation in group activities
Demonstrate the ability to work within a group to accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor
List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle
choices
"Customs and Courtesies"

Demonstrate proper Air Force customs and courtesies.
"Dress, Appearance, and Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
"Drill and Ceremonies"
Demonstrate Air Force formal
dining, awards, and flag
ceremonies.
Demonstrate parade procedures.
"Leadership and Management"
Demonstrate leadership and management skills.
Demonstrate feedback
principles and evaluate the
performance of subordinates.
"Feedback and Performance
Evaluation Skills"
Provide performance feedback and evaluation to cadet wing subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"
Value the importance of physical training
"Professional Officer Course
Cadet"
Perform leadership position in cadet wing
AFRO 302LAB. POC
Leadership Laboratory (2). Students plan, organize, coordinate, and direct cadet corps activities, enhancing communication, management, and other leadership skills. Three hours weekly plus mandatory physical training. Grade will either be S or U . Course will be offered every year (Winter). Corequisite: AFRO 302.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"
Develop esprit de corps through participation in group activities
Demonstrate the ability to work within a group to accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor

List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle
choices
"Customs and Courtesies"
Demonstrate proper Air Force
customs and courtesies.
"Dress, Appearance, and Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
"Drill and Ceremonies"
Demonstrate Air Force formal dining, awards, and flag
ceremonies.
Demonstrate parade procedures.
"Leadership and Management"
Demonstrate leadership and
management skills.
Demonstrate feedback
principles and evaluate the
performance of subordinates.
"Feedback and Performance
Evaluation Skills"
Provide performance feedback
and evaluation to cadet wing
subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"
Value the importance of
physical training
"Professional Officer Course Cadet"
Perform leadership position in cadet wing
AFRO 303LAB. POC
Leadership Laboratory (2).
Students plan, organize,
coordinate, and direct cadet
corps activities, enhancing
communication, management,
and other leadership skills.
Three hours weekly plus
mandatory physical training.
Grade will either be S or U .
Course will be offered every
year (Spring). Co-
requisite: AFRO 303.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"

Develop esprit de corps
through participation in group activities
Demonstrate the ability to
work within a group to
accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor
List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle
choices
"Customs and Courtesies"
Demonstrate proper Air Force
customs and courtesies.
"Dress, Appearance, and
Grooming"
Identify and demonstrate
proper Air Force dress, appearance, and grooming standards.
"Drill and Ceremonies" Demonstrate Air Force formal
dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Leadership and Management"
Demonstrate leadership and
management skills.
Demonstrate feedback
principles and evaluate the
performance of subordinates.
"Feedback and Performance
Evaluation Skills"
Provide performance feedback
and evaluation to cadet wing
subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"
Value the importance of
physical training
"Professional Officer Course Cadet"
Perform leadership position in cadet wing
AFRO 401LAB. POC
Leadership Laboratory (2).
Advanced leadership
experiences involving planning
and conducting cadet training activities, oral and written communications, and developing human relations skills. Three hours weekly plus mandatory physical training.

Grade will either be S or U . Course will be offered every year (Fall). Corequisite: AFRO 401.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"
Develop esprit de corps
through participation in group activities
Demonstrate the ability to
work within a group to
accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor
List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle
choices
"Customs and Courtesies"
Demonstrate proper Air Force
customs and courtesies.
"Dress, Appearance, and
Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming
standards.
"Drill and Ceremonies"
Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Leadership and Management"
Demonstrate leadership and management skills.
Demonstrate feedback
principles and evaluate the performance of subordinates.
Feedback and Performance
Evaluation Skills"
Provide performance feedback and evaluation to cadet wing subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"
Value the importance of
physical training
"Air Force Employment
Exercise"
Build and execute a war plan.
AFRO 402LAB. POC
Leadership Laboratory (2).
Advanced leadership
experiences involving planning
and conducting cadet training
activities, oral and written communications, and developing human relations skills. Three hours weekly plus mandatory physical training.
Grade will either be S or U .
Course will be offered every year (Winter). Co-
requisite: AFRO 402.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"
Develop esprit de corps
through participation in group activities
Demonstrate the ability to
work within a group to
accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor
List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle choices
"Customs and Courtesies"
Demonstrate proper Air Force
customs and courtesies.
"Dress, Appearance, and
Grooming"
Identify and demonstrate proper Air Force dress, appearance, and grooming standards.
"Drill and Ceremonies" Demonstrate Air Force formal dining, awards, and flag ceremonies.
Demonstrate parade procedures.
"Leadership and Management" Demonstrate leadership and management skills.
Demonstrate feedback principles and evaluate the performance of subordinates.
"Feedback and Performance Evaluation Skills"
Provide performance feedback
and evaluation to cadet wing subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"

Value the importance of physical training
"Air Force Employment
Exercise"
Build and execute a war plan.
AFRO 403LAB. POC
Leadership Laboratory (2).
Advanced leadership
experiences involving planning
and conducting cadet training
activities, oral and written
communications, and developing human relations skills. Three hours weekly plus mandatory physical training. Grade will be either S or U . Course will be offered every year (Spring). Co-requisite: AFRO 403.
Upon successful completion of this course, the student will be able to:
"Esprit de Corps"
Develop esprit de corps
through participation in group activities
Demonstrate the ability to
work within a group to
accomplish a goal
"Cadet Mentoring Program"
Define the styles of a mentor
List the rules of mentoring
"Health and Wellness"
Identify the components of the
AF fitness assessment
Identify healthy lifestyle
choices
"Customs and Courtesies"
Demonstrate proper Air Force
customs and courtesies.
"Dress, Appearance, and Grooming"
Identify and demonstrate
proper Air Force dress, appearance, and grooming standards.
"Drill and Ceremonies"
Demonstrate Air Force formal
dining, awards, and flag
ceremonies.
Demonstrate parade procedures.
"Leadership and Management"
Demonstrate leadership and
management skills.
Demonstrate feedback
principles and evaluate the performance of subordinates.
"Feedback and Performance
Evaluation Skills"

Provide performance feedback and evaluation to cadet wing subordinates.
"Commander's Call"
Construct and brief Cadet
Corps on mandatory topics as
directed by Higher
Headquarters
"Physical Training"
Value the importance of physical training
"Air Force Employment Exercise"
Build and execute a war plan.

## AIS 101. American Indian

Culture before European
Contact (5). An
interdisciplinary approach explores the lifeways and environments of American Indians prior to European contact and settlement. Sources of pre-contact information consist of the archaeological, oral history, and paleoenvironmental records. SB-Perspectives on Cultures and Experiences of U.S. (W). Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Identify basic principles and institutions that underlie American Indian society and their cultures (e.g., settling Americas, adaptations to changing environments, origin of agriculture, emergence of complex social systems.) Use archaeology, ethnohistory, and American Indian Oral history to describe theories about individuals, social processes, social networks, and cultural processes (e.g., adaptation to climate change, creation and maintenance of trade and exchange systems). Analyze American Indian cultural adaptations and oral histories containing their perspectives using anthropological and archaeological theory and research.
Articulate ways that precontact American Indian social diversity shapes attitudes and values affecting modern views
of Native American society and culture, past and present. Explain how human actions impact issues of sustainability at the
individual/community/organiza tion/societal levels by applying archaeological and oral tradition methods of inquiry. Demonstrate knowledge about how American Indian food getting systems and traditional ecological knowledge affected sustainability of their lifeways using archaeological, anthropological and oral tradition to evaluate the validity of arguments and research.
AIS 102. American Indians in the Contact Period (5). An
interdisciplinary study of the lifeways and environments of American Indians during the period of European contact. Sources of contact period information come from the archaeological, American Indian and European written and oral history records. SBPerspectives on Cultures and Experiences of U.S. (W). Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Read and respond in oral and written form to literary and historical sources from both indigenous and colonial perspectives, understanding the importance of perspective, bias and audience to the production and reception of those sources (HUM 1).
Identify and synthesize patterns in American and global past that are reflected in our current world, making connections between past and present (HUM 2).
Recognize and analyze alternate ways of articulating and interpreting the human experience, particularly indigenous viewpoints as well as self-serving colonial and national narratives, along with different disciplinary perspectives that have framed
and shaped history and current cultural perceptions (HUM 3). Identify and challenge preconceived notions of the past, in particular national and tribal identities in the context of alternative (multiple indigenous) perspectives and experiences (HUM 4). Analyze the ways in which historically and culturally distinct contexts shaped lives, beliefs, and experiences in the past, and how these are different from contemporary ones (HUM 5).
AIS 103. Contemporary American Indian Experience
(5). An interdisciplinary approach explores the emergence of contemporary
American Indians after AD 1890 with an emphasis on social, political, and cultural aspects. Sources of information about this period come from written and oral history. SBPerspectives on Cultures and Experiences of U.S. (W). Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Describe how historical, social, economic, and/or cultural developments have socially and culturally affected indigenous communities in North America. (CC\&C 4) Analyze problems and challenges facing indigenous and other marginalized communities and articulate the how awareness of such social inequalities leads to formulating more informed local, regional and national identities and definitions of citizenship. (CC\&C 1)
Explain how an understanding of social, economic, cultural and political issues facing American Indian communities leads to a greater appreciation for cultural diversity and how this diversity enhances the value of local, regional and national communities. (CC\&C 2)

Analyze relationships between American Indian and other
communities, including national governments, as well as dominant colonial cultures. Particularly, identify how indigenous perspectives and experiences impact political and government policy at multiple levels, as well as articulations or cultural and national identity. (CC\&C 3)
AIS 296. Individual Study (16).

AIS 298. Special Topics (1-6).
May be repeated if subject is different.
AIS 299. Seminar (1-5). May
be repeated if subject is different.
AIS 320. American Indian Philosophy (Put on reserve 9/16/17) (5). The course examines philosophy indigenous to North America through native and non-native historical and contemporary sources; explores the interplay of native and non-native philosophical concepts and the influence of indigenous
American roots on contemporary American philosophy. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.)
Upon successful completion of this course, the student will be able to:
Give examples of current issues impacting American Indian society.
Identify the historical and cultural conditions in and through which the Native American pragmatism emerges and describe the interplay between the native and nonnative philosophical concepts Compare and contrast the distinct agendas and methodologies of non-native and native pragmatism. Extract, evaluate, and assess significant concepts and argumentation from primary texts
Identify practical issues in Native American pragmatism.
AIS 321. American Indian Spirituality (5). Introduction to American Indian spirituality with emphasis on myths, rituals, and beliefs; including
historical, economic, political and legal issues that influence the ways of American Indian spiritual practice; Ghost Dance, Native American Church, etc. Upon successful completion of this course, the student will be able to:
Explain the importance of spirituality in the everyday lives and communities of among the diverse cultural traditions of contemporary American Indians Identify tribal arts, music, dance, poetry, literature and architecture within the social, cultural and spiritual context of American Indian communities. Delineate the economic, political and legal restrictions that have been and continue to be placed upon the practice of American Indian culture. Demonstrate how the oral tradition can provide guidance and leadership within the spiritual context of the American Indian community. Explain the role of folklore and mythology in Indian society. Illustrate the differences between cyclical and linear concepts of time and its significance in Indian Culture. Analyze the relationship between nature, identity and power in Indian Culture. Explain and instantiate the American Indian emphasis upon ritual and the, social dimensions of spirituality.
AIS 396. Individual Study (16). May be repeated if subject is different.
AIS 397. Honors (1-12).
Prerequisite: admission to department honors program.
AIS 398. Special Topics (1-5).
AIS 399. Seminar (1-5). May
be repeated if subject is different.
AIS 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty
coordination. By permission. May be repeated for credit. Grade will either be S or U AIS 491. Workshop (1-6). Occasional workshops will be offered to provide a context for American Indian artists/scholars to teach. May be repeated for credit. Grade will either be S or U .
AIS 496. Individual Study (16).

AIS 497. Honors (1-12).
Prerequisite: admission to department honors program.
AIS 498. Special Topics (1-5).
AIS 499. Seminar (1-5). May
be repeated if subject is different.
ANTH 107. Being Human: Past and Present (5).
Exploration of being human throughout the world from the earliest human ancestors to today using archaeological, biological, cultural and linguistic anthropology methods and perspectives. SBFoundations of Human Adaptations and Behavior. Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Identify basic principles and institutions that underlie human cultures (e.g., language, race, marriage, social inequality)
Describe theories about social and cultural processes (e.g., social control, functionalism) Explain and apply methods to investigate and analyze cultures across space and time (e.g., participant observation, archaeology)
Analyze human behavior using theory and research (e.g., fossil record and archaeology discoveries) Articulate ways that cultural diversity affects attitudes and values through concepts such as social identity, cultural relativism, race, and ethnocentrism.
Analyze issues related to public health, wellbeing, and sustainability over human history (e.g., paleopathology,
dietary change, cultural collapse) from interdisciplinary approaches (e.g., evolution, archaeology)
Explore anthropological, archaeological, and evolutionary approaches that address our understanding of long-term humanenvironmental balance and societal health
ANTH 110. Bones, Apes, and
Genes: Exploring Biological
Anthropology (5). Exploration
of the field of biological anthropology, including humankind's evolutionary relationships to other primate forms, the human fossil record, and on-going evolutionary processes impacting on the human species. NS-Patterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Consider and discuss how discoveries in and research on human evolution contribute to our lives and our roles as citizens.
Generate and test hypotheses regarding the evolutionary relationships among various fossil hominins (humans), using fossil ages, geographic and ecological locations, and anatomy.
Compare various primate species to explore what is unique to humans and what humans share with other primate species and mammals more broadly.
Describe and analyze the diverse body of evidence that contributes to and informs modern evolutionary theory (e.g., the systems of genetics, behavior, paleoanthropology). Apply quantitative information to critique evolutionary explanations for characteristics of past and modern hominin (human) populations (e.g., maintenance of balanced hemoglobin polymorphisms in malarial regions-aspects of ecology select for evolution of
specific characteristics, evolution of bipedalism). Discuss human evolution now, considering where our species came from, our species' features, how we populated earth, and our recent evolutionary challenges.
ANTH 120. Archaeology: Science of the Past (5). Introduction to the concepts, methods, and development of archaeology, as well as key discoveries from the ancient world. Illustrations of how fields of science are combined to uncover past human achievements and diverse cultures. SB-Foundations of Human Adaptations and Behavior (W). Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Describe how archaeology contributes to our lives by providing a deep historical background to humanity and exposure to different cultures and ways of living. Recognize social, political, and ethical implications of archaeological research, particularly considering heritage management, ownership of the past, and ethical responsibilities to descendants.
Formulate questions that can be addressed by archaeological inquiry, and ways of evaluating validity of archaeological knowledge (i.e. epistemology). Apply quantitative reasoning to solve archaeological problems. Explore archaeological methods and approaches (e.g., studies of paleodiet or paleoenvironment) as they address our understanding of long-term humanenvironmental balance and societal health or cultural collapse (e.g., implications of origins of agriculture) Analyze issues related to longterm past public health, wellbeing, and sustainability (e.g., paleopathology, dietary change, cultural collapse) from
interdisciplinary approaches (e.g., environmental archaeology)

## ANTH 130. Cultural Worlds

(5). The cross-cultural and holistic study of humans worldwide, including the analysis of race, gender, power, kinship, globalization, and the role of symbols in social life. Students will also examine their own world through anthropological lenses. SB-Perspectives on World Cultures.
Upon successful completion of this course, the student will be able to:
Define, differentiate, and identify interconnections between notions of culture, society and nature. Define key theories, quantitative and qualitative methods, and ethical considerations of cultural anthropology.
Employ theories and methods of cultural anthropology to formulate new perspectives on current issues and global problems.
Employ theories and methods of cultural anthropology to formulate new perspectives on current issues and global problems.
Understand human diversity by comparing cultural practices and beliefs, social organization, and adaptations across cultures, based on knowledge about specific cultures.
Discuss the construction of race, class, gender, sexuality, and ethnicity; and evaluate their intersectionality. Analyze processes underlying the production of social inequality in local, national, and global contexts. Identify and critically discuss processes of globalization, and connections between local and global issues, with attention to social and environmental impacts of the global economic system.
Critically examine and challenge boundaries of own ethnocentrism and positionality

Justify the value of cultural diversity as it relates to issues in everyday life, as well as at local, national, and global scales.

## ANTH 137. Race, Power and

 the American Dream (5).This class constitutes an anthropological exploration of race in the United States by examining structural inequality in relation to the ideas and experiences reflected in what is popularly called The American Dream. Course will be offered every year (Fall, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Explain race as a social construct.
Describe an historical overview of racism in the United States
Identify the different components of "the American Dream".
Examine racial stereotypes as social indexes.
Deconstruct the notion of white privilege.
Articulate the relation between class and race.
Describe social power.
Discuss how social inequality is produced.
Reflect about individual racial position.
Recognize the significance of differing racial experiences.
Evaluate the impact of race in today's world.
Generate common-ground with respect to differing social experiences.
Advocate for a critical approach to race and racism in the United States.
ANTH 180. Language and Culture (5). This course is an introduction to the scientific and anthropological study of language, concerning its structure and function as an omnipresent system in communication, cognition, and socialization, and its relationship with culture, society, and power. Course will be offered every year (Winter, Spring, Summer).

Upon successful completion of this course, the student will be able to:
Describe how critical language is to cultural adaptation and intellectual development, and how unique language is to human socialization. Examine your own beliefs in and attitude toward languages, dialects, and accents used in a community and elsewhere.
Apply linguistic tools and techniques to language description: phonetically transcribe words, delineate and justify the internal structure of words, group linguistic elements into classes, and explain differences of meaning. Explain the linguistic concepts and realize that all human languages are creative, have a grammar, change over time, and culturally transmitted. Analyze human speech acts, norms, or discourses using linguistic theories and methods.

## ANTH 201. Grade 1 Animal

Technician (1). Course covers
skills of Grade 1 Animal
Technician with a focus on primates. Standards follow those of the International Primatological Society and include maintenance of primates' physical environment and USDA standards for management. Grade will be S or U.
Upon successful completion of this course, the student will be able to:
Define USDA nutritional requirements for captive nonhuman primates. Define OSHA standards for animal caregivers.
List reasons for maintaining daily logs of animal behaviors and notable events. Describe hygiene standards and health and safety considerations for human and nonhuman primates, including potential for cross-species disease transmission.
Recall USDA standards for enclosure design for primates.

Review the use of speciestypical behaviors in animal management.
Discuss how social housing impacts on captive primates' health and well-being. Create enrichment activity for captive primate.
Evaluate professional standards for maintaining captive primates.
ANTH 296. Individual Study
(1-6). By permission. May be repeated for credit.
ANTH 298. Special Topics (1-6).
ANTH 299. Seminar (1-5).
May be repeated if subject is different.
ANTH 301. Anthropology: Principles and Assessment
(2). Principles and assessment course for majors: current topics and careers, research, funding; development of assessment portfolios and individual program plans. Required for all BA and BS anthropology majors at admission.
Upon successful completion of this course, the student will be able to:
Have both a broad understanding and set of specific knowledge that will facilitate a successful undergraduate career in anthropology and prepare them for post-Baccalaureate efforts in anthropology.
Be familiar with the requirements and opportunities that face undergraduates in the CWU department of anthropology.
Know their areas of strength and weakness and areas of special interest within the field of anthropology by taking the departmental assessment exam.

## ANTH 310.

Research/Laboratory in Biological Anthropology (1-
2). Laboratory research
analysis of biological anthropology materials. May be taken concurrently with and as a supplement to other 300level courses in biological anthropology. The course may
be repeated for a cumulative
maximum of 8 credits. No more than 10 credits of ANTH 310 and ANTH 485 are allowed to fulfill BA or BS requirements. Meets anthropology subfield Biological Anthropology (B). Prerequisite: previous college work in biological anthropology or other natural sciences, and permission of instructor.
ANTH 311. Advanced Biological Anthropology: Principles of Human Evolution (4). Analysis and interpretation of major principles of modern biological anthropology from an evolutionary perspective: genetics, population genetics, ecology, comparative anatomy and human paleontology. Meets anthropology subfield Biological Anthropology (B). Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
List, describe, and discuss genetics and evolutionary theory as these are used in biological anthropology. Apply their knowledge of evolutionary dynamics to problems and scenarios taken from fossil and living human populations.
Apply evolutionary principles to a specific problem related to human evolution using either modern populations or extinct fossil forms.

## ANTH 312. Human Origins:

The Fossil Evidence (4). The
fossil record of hominins.
Basic data and interpretation.
Meets anthropology subfield
Biological Anthropology (B).
Course will be offered on even numbered years (Fall).
Upon successful completion of this course, the student will be able to:
List, describe, and discuss the major hominin fossil sites, fossil specimens, and extinct and living hominins from the late Miocene through the Holocene epochs.

Discuss the principal methods of data collection and analysis used in paleoanthropology. Practice methods of laboratory data collection to interpret fossil hominins.
Apply knowledge of phylogeny and taxonomy to compare and contrast fossil hominins.
ANTH 313. Primate Social
Behavior (4). Survey of field studies of nonhuman primates relevant to the study of human social systems and adaptation. Meets anthropology subfield Biological Anthropology (B). Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Locate career information posted on Primate Info Net, Identify major primate researchers, their findings, and how these findings have shaped primatology.
Identify primary literature and authoritative websites in primatology.
Interpret primary literature and incorporate this information into poster text.
Classify primates to order, family, genus, and species levels.
Construct the social organization and natural history of the best-known primate species.
Summarize the theoretical and methodological approaches of primatologists trained as anthropologists, psychologists, or biologists.
ANTH 314. Human Variation (4). Survey of genetic, physiological, and morphological diversity of modern human populations, with a focus on how humans' biological variation interacts with culture to enable adaptation to various ecological settings. NSApplications Natural Science. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: sophomore standing or above.

Upon successful completion of this course, the student will be able to:
Demonstrate how genetic research has shaped modern medical science.
Recognize how biological anthropology developed as a discipline, and how humans are studied as part of the natural world.
Identify various human body shapes and physiological adaptations and match them to diverse environments. Critique the interrelationships among morphological, physiological, and genetic variation in human populations and traditional race concepts. Calculate a population's observed and expected allele frequencies.
Find and evaluate information
on human genetic conditions (e.g., cancer).

Analyze the contributions of genes, life choices, and culture on health outcomes (e.g., cancer risk, obesity). Critique the biological bases for race and gender as they are applied to human classifications.
Apply biological concepts learned in this class regarding human variation to understandings of race and gender.
Problematize the social dynamics of group inclusion and exclusion based on biology, race, gender, and ethnicity.
Challenge the effects of race and gender as cultural constructs historically and in the present.
ANTH 315. Forensic Skeletal
Analysis (4). A survey of the human skeleton and techniques of human skeletal analysis. Identification of age, sex, and other traits in modern and extinct populations. Meets anthropology subfield
Biological Anthropology (B).
ANTH 316. History and Theory of Molecular Anthropology (4). This seminar will include readings from important studies that
have influenced the field of biological anthropology including the areas of human origins, phylogeny and dispersal. Prerequisite: ANTH
311 or by permission of the instructor.
Upon successful completion of this course, the student will be able to:
Critically read a peer- reviewed article, summarize the content and lead a class discussion. Identify the various types of molecular data used in studies that have contributed to our understanding of human evolution.
Trace the history of the application of molecular techniques to the study of human evolution.
ANTH 318. Introduction to
Forensics (4). This course explores the subject matter and methods forensic investigators use when searching and recovering evidence from crime scenes.We examine approaches to forensics across multiple disciples including anthropology, biological sciences, chemistry, law and justice, geological sciences, physics, psychology, and sociology. The goal is to provide a broad overview for students interested in exploring forensic careers. ANTH 318 and LAJ 318 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify major developments in the history of forensic science Identify specialized fields which contribute to the forensic investigation Describe the ethical issues facing the forensic scientist Employ forensic examination and comparison techniques on evidence
Demonstrate procedures associated with crime scene processing
Demonstrate proficiency in writing
Summarize court decisions concerning scientific evidence

Appraise current literature, materials and developments regarding scientific evidence
ANTH 320.
Research/Laboratory in Archaeology (Put on reserve
9/16/17) (2). Analysis of archaeological materials. Minimum of 4 hours laboratory per week. No more than 10 credits of ANTH 320 and ANTH 486 allowed to fulfill
BA or BS requirements. Meets
anthropology subfield
Archaeology (A). (Put on
reserve $9 / 16 / 17$. Will go
inactive $8 / 24 / 2020$.)
Prerequisite: ANTH 120.
ANTH 321. Archaeological
Methods (4). Introduction to methods used by
archaeologists, with an emphasis on laboratory methods for analysis of chipped stone, ceramics, faunal remains, and other archaeological materials. Meets anthropology subfield Archaeology (A).
Upon successful completion of this course, the student will be able to:
Define archaeological data and describe the appropriate means of statistical description and inference
Describe the fundamental components of archaeological research design
Describe the diversity of methodological approaches and techniques to archaeological investigations
Engage in and report on independent archaeological research
ANTH 322. World Prehistory
(4). Old and New World prehistory from late Pliocene to the early historic period, including the ecology and development of huntinggathering, agriculture and state-level societies. ANTH 322 and HIST 322 are crosslisted courses; students may not receive credit for both. Meets anthropology subfield Archaeology (A).
ANTH 323. Field
Archaeology (3-6).
Identification, mapping and
recording of archaeological sites; techniques of excavation. Grade will be either S or U .
Meets anthropology subfield
Archaeology (A). Prerequisite:
ANTH 120.
ANTH 324. North American
Archaeology (4). Prehistoric cultures of North America, with emphasis on adaptation to changing environments. Meets anthropology subfield Archaeology (A).
Upon successful completion of this course, the student will be able to:
Identify the diversity of regional cultural developments in North America
Identify broad pan-regional trends in North American culture history.
Compare and contrast ecological settings at the end of the Pleistocene and throughout the Holocene across North America.
Use deductive analytical skills to investigate a mystery artifact from North America.
ANTH 325. Prehistory of the Pacific Northwest (4).
Prehistoric cultures of Washington State and adjoining regions. Meets anthropology subfield Archaeology (A).
Upon successful completion of this course, the student will be able to:
Identify the diversity of regional cultural developments in the Pacific Northwest. Identify broad pan-regional trends in the Pacific Northwest culture history.
Compare and contrast ecological settings at the end of the Pleistocene and throughout the Holocene across the Pacific Northwest.
Use deductive analytical skills to investigate an archaeological site in the Pacific Northwest.
ANTH 333. Culture and Marriage (4). The reciprocal relationships between the biophysical and cultural components in mating, nurturing and sexual access. Cross-cultural patterns in marriage. ANTH 333 and FCL

333 are cross-listed courses; students may not receive credit for both. Meets anthropology subfield Cultural Anthropology (C).

ANTH 340. Ethnography of China (Put on reserve $9 / 16 / 17$ ) (4). This course is designed to explore China from the perspectives of general cultural patterns and ethnicity. ANTH 340 and AST 340 are cross-listed courses; students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.) Upon successful completion of this course, the student will be able to:
Tell what ethnic identifications are in China and to state the key ethnic and political problems concerning Tibet, Xinjiang and Inner Mongolia. Describe the steady, multiethnic formation of China throughout history by a complex process of cultural diffusion, population move, and violent action.
Provide an underlying geopolitical explanation of the policy of the Chinese government towards the minority peoples in its frontier regions and towards its national security. Procure concepts and tools for presenting the forms of interethnic relations through what happened and what is going on in multiethnic China. Specify how the Chinese 'autonomous' solutions to the ethnic minorities work and fail. Increase experience in reading and writing about ethnic groups and cultures.
ANTH 341. Native American

## Cultures of the Pacific

 Northwest (4). Ecological settings and cultural adaptations of Pacific Northwest Native Americans in historical and contemporary contexts. Culture change and continuity, language, religion, resource management, and tribal sovereignty. Meets anthropology subfield Cultural Anthropology (C).Upon successful completion of this course, the student will be able to:
Understand the ecological settings, cultural adaptations and diversity of aboriginal peoples of the Northwest Coast and the Columbia Plateau. Demonstrate how contemporary Indian cultures have persisted and adapted within the context of the Pacific Northwest's changing social and economic setting. Recognize how the cultural values of non-natives regarding gender, race and "civilization" have influenced, often unconsciously, descriptions and knowledge of Pacific Northwest Indians. Demonstrate how American Indians have retained and reasserted their cultural traditions and tribal sovereignty.
ANTH 342. Hispanic Cultures of the Western U.S. (On reserve as of 9/16/15) (4).
This course provides an overview of Hispanic cultures in the American Southwest, California and the Pacific Northwest. Culture change and maintenance through language, religion and an economic resource base are highlighted.
Meets anthropology subfield Cultural Anthropology (C). Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
ANTH 343. Culture and
Power in Africa (4).
Anthropological study power in precolonial African societies, ideological and cultural dimensions of social inequality and social struggle, classical social anthropology and contemporary analysis of war, genocide, refugee movement, and political consciousness. Meets anthropology subfield Cultural Anthropology (C).
Upon successful completion of this course, the student will be able to:
Identity and differentiate anthropological models of African cultures

Evaluate relations between ritual, politics, kinship and social organization in African societies Demonstrate understanding of local social dynamics within the operations of global economic systems; Identify and differentiate models of ethnic relations in African societies;
ANTH 344. Cultures of Asia
(4). Setting and cultural adaptation of the peoples of Asia. Representative groups from cultural regions of East Asia and Central/Inner Asia. Meets anthropology subfield Cultural Anthropology (C).
ANTH 345. Cultures of Southeast Asia and Oceania
(4). Setting and cultural adaptation of the peoples of Southeast Asia and Oceania. Meets anthropology subfield Cultural Anthropology (C).
ANTH 346. Cultures of Latin America and the Caribbean (4). Survey of anthropological research on cultures of Latin America and the Caribbean in historical and contemporary contexts. Meets anthropology subfield Cultural Anthropology (C).

Upon successful completion of this course, the student will be able to:
Identify similarities and differences between students' own life experiences and social and cultural realities in Latin America
Explain and critique at least three different theoretical approaches to the study of Latin American societies. Evaluate research on diversity in Latin America using one or more theoretical frameworks. Synthetize specific cultural, historical and political transformation of Latin America
ANTH 347. Native American Cultures of North America
(4). Ecological settings and cultural adaptations of North American Native Americans in historical and contemporary contexts. Culture change and continuity, language, religion,
resource management and tribal sovereignty. Meets anthropology subfield Cultural Anthropology (C). Upon successful completion of this course, the student will be able to:
Understand the ecological settings, cultural adaptations and diversity of Native American societies of North America.
Demonstrate bow contemporary Native cultures have persisted and adapted within the historical context of colonization, and throughout changing social, political and economic settings in the United States and Canada. Recognize how the cultural values of non-natives regarding gender, race and "civilization" have influenced, often unconsciously, representations, descriptions, and knowledge of Native American peoples and cultures.
Demonstrate how Native Americans have retained and reasserted their cultural traditions and tribal sovereignty, and the legal bases for these efforts.

## ANTH 351. Visual

 Anthropology (4). Provides methodological, theoretical and practical background to produce and evaluate imagery in films and video; guidelines and practice of image presentation/manipulation in anthropological and social contexts. ANTH 351 and COM 351 are cross-listed courses; students may not receive credit for both. Meets anthropology subfield Cultural Anthropology (C). Prerequisites: ANTH 130 or ART 225 or COM 321 or COM 330.ANTH 352. Anthropology of Environmental Issues (4).
Anthropological approaches to environmental issues and debates, from climate change to the availability of clean water and beyond. Students use critical thinking in assessing the role of culture nationally and internationally in current environmental issues. Meets
anthropology subfield Cultural Anthropology (C).
Upon successful completion of this course, the student will be able to:
Use holistic anthropological perspectives in assessing the role of culture in current environmental issues in both the U.S. and internationally. Distinguish between cultural beliefs about the environment and the impact of economic/political factors. Identify and compare the role of diverse cultural models for environmental issues and associated solutions proposed. Students will participate in presentations comparing alternative cultural models for environmental issues and solutions.
ANTH 353. Childhood and
Culture (4). Cross-cultural comparison of children's lives in different societies.
Exploration of developmental paradigms and comparison of ideas about what childhood is and how children become competent in different societies.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of concepts that influence cultural understandings of childhood, such as culture, ethnocentrism, human universals, cultural relativism.
Identify cultural assumptions about children and childhood as evidenced in ethnographic writing and in their own culture.
Explain and critique at least
two Euro-American
developmental theories from a cross- cultural perspective. Demonstrate understanding of political and economic factors that influence the status and role of children in society. Describe characteristics of U.S. childhood in comparison to other cultures.
ANTH 354. Anthropology of
Religion (4). A cross-cultural analysis of religion, cosmology and world view. Meets
anthropology subfield Cultural Anthropology (C).
ANTH 355. Culture, Person, Self (4). A cross-cultural analysis of the relationship of individuals to cultural beliefs and practices. Meets anthropology subfield Cultural Anthropology (C).
Upon successful completion of this course, the student will be able to:
Understand historical and current perspectives on the interaction of culture, person and self.
Know the major theoretical arguments about the relationship between psychological and cultural processes in relation to culture, person and self.
Know the major issues that have informed the field of psychological anthropology, such as personality development, the influence of culture on psychological development, theories of mental health and illness in relation to cultural context. Have in-depth knowledge of a current topic in the field of psychological anthropology.
ANTH 356. Gender Roles in Cross-cultural Perspective
(4). Bio-cultural factors affecting human gender roles. Meets anthropology subfield Cultural Anthropology (C).
ANTH 357. Medical
Anthropology: Crosscultural Perspectives on Health and Healing (4).
Emphasizes cultural and biological factors influencing health maintenance in human populations and cross-cultural perspectives on illness, healing and the provision of health care. Meets anthropology subfield Cultural Anthropology (C).

ANTH 358. Culture and Politics in a Global Economy (Put on reserve 9/16/17) (4).
Comparative perspectives on cultural processes of change within the global economic system. Meets anthropology subfield Cultural Anthropology
(C). (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
ANTH 359. Survey of Music in Cross-cultural
Perspectives (2). An
introduction to ethnomusicology: the cultural context of music with emphasis on Africa, Asia, Native North and South America, Oceania. ANTH 359 and MUS 359 are cross-listed courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Discuss and examine specific issues pertaining to the nature of musical creation. Define ethnomusicological terms and concepts. Identify geographical distribution of musical phenomena and the stratification of music in society.
Aurally recognize and classify stylistic characteristics and write in a scholarly manner about various ethnic traditions and genres.
Identify the intellectual, personal, emotional, and political problems associated with intercultural musical contexts.
Recognize both the diversity and universality of the world's music.
ANTH 360. Introduction to Museum Studies (4).
Concepts relating to museums in society: history, ethics, philosophy, administration, legislation and education. Meets anthropology subfield Cultural Anthropology (C).
ANTH 361. Museum Exhibit
Design (4). Principles of design applied to visual presentation of material culture, ideas and concepts through educational exhibits.
ANTH 362. Museum Curation and Management
(4). Application of techniques of environmental security, restoration and preservation in the management of museum collections.
ANTH 363. Culture and
Economy (4). This course
considers global perspectives on production, distribution, exchange, and consumption by examining classical works in political economy and economic anthropology, as well as recent research that explores the relationships between capitalism and other economic systems. Students will examine how systems of subsistence, exchange, and distribution operate within diverse cultural, social, and environmental contexts. They will interrogate the relationships between important contemporary issuespoverty, homelessness, and food insecurity, for exampleand global capitalism. Course will be offered on odd numbered years (Winter Quarter).
Upon successful completion of this course, the student will be able to:
Recognize and describe key theories about economics and human nature
Illustrate how key theories in economic anthropology help us to understand their own consumptive practices. Connect diverse modes of production, distribution, and consumption to social and environmental relationships.
ANTH 380. Non-Verbal
Communication (4).
Fundamentals of non-verbal communication including codes, relationship to biology and culture, usage, and interrelationships. ANTH 380 and COM 380 are cross-listed courses. Meets anthropology subfield Linguistics (L). Upon successful completion of this course, the student will be able to:
Identify channels of non-verbal communication
Integrate the contribution of biology and culture to nonverbal behavior Identify the role of non-verbal communication in interactions. Identify meaning of non-verbal communication in contemporary US culture.

ANTH 381. Language in
Culture (4). Language as a culture trait. Influence of language on other human institutions. Includes psycholinguistics, sociolinguistics, ethnographic semantics, and multilingualism in its sociocultural setting. Meets anthropology subfield Linguistics (L).
ANTH 382. Descriptive
Linguistics (4). Introduction to the basic concepts and mechanics of formal linguistic analysis. Meets anthropology subfield Linguistics (L).
ANTH 384. Language and Gender (4). This course is designed to guide students to explore the active and rapidly expanding field of gender studies and language research dealing with how biological and cultural awareness of sexes are reflected in speech. ANTH 384 and WGSS 384 are crosslisted courses; students may not receive credit for both. Meets anthropology subfield Linguistics (L).
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of how language participates in gender practice and how language encodes attitudes about gender Examine issues of method and analytic practice in language and gender research Define concepts and tools for understanding of the patterns of human communication based on gender differences toward explaining dominance of a certain gender via language
Describe gender inequities and sexually- oriented expressions in language and with the adjustments being made to rectify them Identify how different genders pursue conversational strategies to establish status and authority and how different ethnic backgrounds can complicate communication between men and women

Locate sexual inequalities in language and the role of language in nurturing and identifying gender differences in society
ANTH 396. Individual Study
(1-6). May be repeated if subject is different.
ANTH 397. Honors (1-12).
Prerequisite: admission to department honors program.
ANTH 398. Special Topics
(1-6). May be repeated if subject is different.
ANTH 399. Seminar (1-5).
May be repeated if subject is different.

## ANTH 410. Biological

Anthropology: Theoretical and Research Issues (4).
Exploration of the theoretical underpinnings of biological anthropology, their expression in current research topics in the field, and the transition from earlier approaches to their current implementation. Seminar structure. May be repeated for a total of 8 credits. Meets anthropology subfield Biological Anthropology (B) and Seminar (S). Prerequisites: ANTH 110 and an additional 5 units of biological anthropology. Upon successful completion of this course, the student will be able to:
Demonstrate their exposure and command of the current and primary literature in biological anthropology. Critique methods used by biological anthropologists. Describe and apply the theories used to interpret data in biological anthropology. Develop competence in research and writing skills Develop competence in speaking skills

## ANTH 411. Primate

Conservation (4). A seminar
that focuses on conservation issues of particular relevance for non-human primates, including deforestation, bushmeat hunting, and pet trade; and on conservation strategies, including reintroduction, captive management, and ecotourism.

ANTH 411 and PRIM 511
are cross-listed courses;
students may not receive credit for both. Meets anthropology subfield Biological
Anthropology (B) and Seminar
(S). Prerequisites: ANTH 110 and ANTH 313.
Upon successful completion of this course, the student will be able to:
Identify conservation issues impacting nonhuman primates. Demonstrate knowledge of general conservation biology. Develop expertise on one conservation issue selected by the student.
Develop presentation and speaking skills.
ANTH 412. Monkeys of the Neotropics (4). An overview of Neotropical monkey evolution, ecology, and behavior in wild and captive settings. Focuses on species ranging in Mexico, Central America, and South America. Meets anthropology subfield Biological Anthropology (B). Course will be offered on even numbered years (Spring). Upon successful completion of this course, the student will be able to:
Examine the physical morphology, geographic distributions, and evolutionary histories of primates living in Mexico, Central America, and South America.
Compare/contrast the ecological and social aspects of Neotropical primate species and examine how ecology, sociality, and behavior are interrelated.
Organize and summarize the current research on Neotropical primate biology, behavior, ecology, and evolution. Evaluate the human-primate relationship in the wild and captivity, the issues that accompany field research and maintaining captive populations, and the resulting effects of both on primate conservation.
ANTH 413. Research
Methods in Primatology (5).
Review of methods used in
collection and analysis of primatological data, including hypothesis development, delineation of variables, subject sampling, data collection techniques, data analysis, and captive versus field settings for research projects. ANTH 413 and PRIM 513 are layered courses; students may not receive credit for both. Prerequisite: junior or senior standing or permission of instructor.
Upon successful completion of this course, the student will be able to:
Use the scientific process. Design a research project. Assess the advantages of disadvantages of various data collection methodologies (e.g., scan sampling, focal animal sampling).
Select an appropriate analytical framework for a research question.
Write a research report.
ANTH 414. Forensic Anthropology: Cold Case Analysis (6). The course explores the recovery and examination of skeletal remains through practical experience in the recovery of buried remains. Students will plan, manage, and conduct a forensic skeletal analysis of a cold case. Findings will be presented. May be repeated for credit. Meets anthropology subfield Biological Anthropology (B).
Prerequisites: ANTH 110, ANTH 310, ANTH 315, and permission of the instructor. Upon successful completion of this course, the student will be able to:
Critically analyze and discuss
the fate of postmortem remains in light of the manner/cause of death as well as the disposal environment
Deliver a report on forensic case analysis
Prepare a forensic case report in an appropriate style and format.
Effectively present an expert report of a forensic skeletal
case analysis under courtroom conditions.
Demonstrate how laboratory investigation is undertaken in a forensic case.
Conduct a thorough search of evidence involved in a mock burial.

## ANTH 415. Forensic Anthropology: Theoretical

 and Applied Issues (4). An indepth and critical analysis of journal articles pertaining to forensic anthropology, osteology, and archaeology. An examination of archaeological techniques that can be adapted to forensic and medico-legal investigations. Meets anthropology subfield Biological Anthropology (B). Prerequisites: ANTH 110, ANTH 310, ANTH 315, and permission of the instructor. Upon successful completion of this course, the student will be able to:Describe how bioarcheology techniques are used in the investigation of crimes Evaluate the wide range of forensic anthropology expertise applied during international human rights (genocide) investigations Critically evaluate forensic osteology casework with respect to the suitability of the methods employed Undertake literature search and submit relevant literature in relation to assigned forensic skeletal case.
Critically analyze and discuss the fate of postmortem remains in light of the manner of death as well as the disposal environment
ANTH 416. Apes (4). An overview of small- and largebodied ape evolution, ecology, and behavior in wild and captive settings. ANTH 416 and PRIM 516 are layered courses; a student may not receive credit for both. Meets anthropology subfield Biological Anthropology (B). Course will be offered on on odd numbered years (Spring). Prerequisite: ANTH 313.

Upon successful completion of this course, the student will be able to:
Examine the physical morphology, geographic distributions, and evolutionary histories of the large- and small-bodied apes. (UG/G) Compare/contrast the ecological and social aspects of large- and small-bodied ape species and examine how ecology, sociality, and behavior are interrelated. (UG/G)
Organize and summarize the current research on ape biology, behavior, ecology, and evolution. (UG/G)
Assess the current literature on ape cognition and culture relative to biology, ecology, and phylogeny. (UG/G) Evaluate the human-ape relationship in the wild and captivity, the issues that accompany field research and maintaining captive populations, and the resulting effects of both on ape conservation. (G)
ANTH 418. Monkeys of Asia and Africa (4). An overview of Old World monkeys' evolution, ecology, and behavior in wild and captive settings. Focuses on species ranging in Africa and Asia. Meets anthropology subfield Biological Anthropology (B). Course will be offered on even numbered years (Winter). Upon successful completion of this course, the student will be able to:
Examine the physical
morphology, geographic
distributions, and evolutionary
histories of African and Asian
monkeys.
Compare/contrast the
ecological and social aspects of Old World monkey species and examine how ecology, sociality, and behavior are interrelated.
Organize and summarize the current research on Old World monkey biology, behavior, ecology, and evolution.

Evaluate the conservation status of endangered Old World monkeys.
ANTH 419. Lemurs and Lorises (4). An overview of the evolution, ecology, and behavior of lemurs and lorises living in wild and captive settings. Meets anthropology subfield Biological Anthropology (B). Course will be offered on odd numbered years (Winter).
Upon successful completion of this course, the student will be able to:
Examine the physical morphology, geographic distributions, and evolutionary histories of lemurs and lorises. Compare/contrast the ecological and social aspects of lemur and loris species and examine how ecology, sociality, and behavior are interrelated
Organize and summarize the current research on the biology, behavior, ecology, and evolution of lemurs and lorises. Evaluate the conservation status of endangered lemurs and lorises.
ANTH 421. Archaeological
Theory (4). Discussion of research problems in data collection, analysis, and interpretation. Meets anthropology subfield Archaeology (A) and Seminar (S). Prerequisite: ANTH 120.

ANTH 425. Zooarchaeology
(4). Mammalian osteology and methods in the analysis of animal bones from archaeological sites. Meets anthropology subfield Archaeology (A). Prerequisites: ANTH 120 and either ANTH 110LAB or BIOL 183.
ANTH 426. Stone Tool
Analysis (4). The theory, method, and technique of stone tool analysis are presented so that students can undertake a research project analyzing a stone tool assemblage. Meets anthropology subfield
Archaeology (A).
Prerequisites: ANTH 120 or ANTH 323.

Upon successful completion of this course, the student will be able to:
Identify essential elements of stone tool analysis.
Describe stone tool research for an archaeological region. Define and list the main points of primary literature on stone tool analysis.
ANTH 427. Environmental
Archaeology (4). Analyses of sediments and plant and animal remains from archaeological sites are used to explore relationships between humans and their environments. Case studies combine natural and physical sciences to study long-term change in landscapes and ecosystems. ANTH 427/527 and GEOG 427/527 are cross-listed courses; students may not receive credit for more than one. Graduate credit requires an additional research paper to be specified in syllabus. Meets anthropology subfield
Archaeology (A).
Prerequisites: ANTH 120 or
GEOG 107.

## ANTH 432. Heritage

Preservation (4). Students will discuss the merits of preserving heritage buildings and landscapes, and question what is deemed worth of heritage designation. Techniques will be developed for investigating a building's history and experience gained in writing proposals and policies to preserve heritage resources. ANTH 432 and GEOG 432 are cross-listed courses; students may not receive credit for both. Prerequisite: GEOG 305 or enrollment in REM Program or permission of instructor.
Upon successful completion of this course, the student will be able to:
Document an individual building's history, including its owners, uses, values, remodels, and situation.
Prepare a nomination for historic designation of either a structure or a district. Identify architectural styles found in the Pacific Northwest
specifically, and North America in general. Contextualize local buildings and districts in the broader cultural, social, and economic conditions that framed their development.
ANTH 440. Ecology and
Culture (4). Investigation into interdependent environmental and human cultural systems. Traditional agroecologies and subsistence strategies; contemporary problems of resource management, social equity, political ecology, and sustainable development. ANTH 440 and GEOG 440 are cross-listed courses, students may not receive credit for both. Meets anthropology subfield Cultural Anthropology (C) and Seminar (S). Upon successful completion of this course, the student will be able to:
Identify and describe differing adaptive strategies among human populations.
Demonstrate knowledge of how environmental management is mediated through culture. Demonstrate sophisticated knowledge of one cultural ecology issue of the students choice.
Demonstrate general knowledge of contemporary issues relevant to cultural ecology (e.g. land degradation, land tenure, sustainable development).
ANTH 444. Ethnographic Field Methods (4). Methods used in ethnographic field work. Meets anthropology subfield Cultural Anthropology (C) and Seminar (S).

ANTH 446. Anthropology of
Globalization (4). Critically examines current theories of globalization in anthropology. Course includes selected ethnographic research on topics including global flows of people, material, ideas, identities, global political structures, and local accommodation and resistance. Meets anthropology subfield

Cultural Anthropology (C) and Seminar (S).
Upon successful completion of this course, the student will be able to:
Analyze ethnographic data in a global structural model Identify and describe global political structures
Apply anthropological theories of globalization to ethnographic data Evaluate several theoretical models of globalization
ANTH 449. Contemporary
Native American Cultures
and Issues (4). Analysis of contemporary Native North American cultures and issues, including tribal sovereignty, resource management, education, religion, economic, and health status, cultural continuity, and adaptation. ANTH 449 and SOC 449 are cross-listed courses; students may not receive credit for both. Meets anthropology subfield Cultural Anthropology (C) and Seminar (S).

Prerequisites: either AIS 103 or ANTH 341 or ANTH 347 or SOC 366 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify how imposed contemporary
reservation/reserve systems have impacted Native cultures in North America. Identify major US political and legal policies that define Native American "reserved rights".
Demonstrate a recognition of how non-native cultural values have influenced the various types of knowledge of contemporary American Indians
Critically assess key issues influencing at least two of the following: Indian education, Native American health; contemporary resource management and economic development; religious freedom and contemporary practices; Pan-Indianism

Research and critically assess the key issues influencing major contemporary issues facing a single Native American tribal group or confederated groups.
ANTH 451. History and Theory of Anthropology (4).
Content and developmental history of anthropological theories and methods. Meets anthropology subfield Cultural Anthropology (C) and Seminar (S). Prerequisite: 20 units of anthropology courses.

## ANTH 458. Senior

Comprehensive Survey (4).
Advanced comprehensive survey of the field of anthropology as to its content and intent. Specifically designed for majors preparing for graduate work.
Prerequisite: admission to an anthropology major plan.
ANTH 460. Meaning in a Material World (4). This course will introduce students to theoretical concepts within the anthropology of material culture that will enable them to develop critical analyses of objects. Course will be offered on odd numbered years (Spring Quarter).
Upon successful completion of this course, the student will be able to:
Recognize and describe key theoretical concepts within the anthropology of material culture that help us understand objects as imbued with social, cultural, political, and economic meanings.
Apply material culture theories to objects encountered in everyday life.
Compare and contrast social, cultural, political, and economic perspectives of material culture. Assemble a theoretical framework for understanding a category or collection of objects.
Critique an analysis of material culture.

## ANTH 463. Learning in

Museums (4). This course will provide students with the foundational theory necessary
for planning, writing, and implementing museum educational programs. Course will be offered on even numbered years (Winter). Upon successful completion of this course, the student will be able to:
Identify broad developments in museum interpretation and education in theory and practice.
Employ museum education strategies in an interpretive context.
Analyze how museum education programs can incorporate the needs of diverse audiences.
Propose a museum education program that would strengthen museum-community partnerships.
Design a museum education program that incorporates knowledge of community/ target audience. Evaluate museum education programs using knowledge learned from readings, lectures, and discussions.
ANTH 480. Survey of Linguistics (Put on reserve as of $9 / 16 / 15$.) (4). Linguistic concepts and the relation between linguistics and other fields of study. Open to seniors and graduate students only. ANTH 480 and ENG 480 are cross-listed courses; students may not receive credit for both. Meets anthropology subfield Linguistics (L). Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: senior standing.
ANTH 483. Sociolinguistics
(4). Concepts and methods of sociolinguistic analysis in first and second languages. Will examine differences among cultures in the relationship between language usage and inequality. ANTH 483 and WL 483 are cross-listed courses; students may not receive credit for both. Meets anthropology subfield Linguistics (L).
Prerequisites: either ANTH
180, ANTH 381, ENG 180, or WL 481.

ANTH 485. Method and Theory in Biological Anthropology (1-8). Methods and techniques, research problems, data collection, analysis, interpretation. Laboratory orientation. No more than 10 credits of ANTH 310 and ANTH 485 are allowed to fulfill BA or BS requirements. May be repeated up to 8 credits. Meets anthropology subfield Biological Anthropology (B). Prerequisite: introductory plus 5 upper-division credits in biological anthropology or corresponding coursework in the biological sciences. Upon successful completion of this course, the student will be able to:
Learn bow to design a research project in biological anthropology.
Find primary literature in biological anthropology. Write a research report. Publicly present the results or their research.
ANTH 486. Advanced
Methods in Archaeology (1-
8). Archaeological research design; planning and supervision of laboratory and field operation; preparation of reports for publication. May be repeated up to 8 credits. No more than 10 credits of ANTH 320 and ANTH 486 allowed to fulfill BA or BS requirements. Meets anthropology subfield Archaeology (A). Prerequisite: 5 upper-division credits in archaeology.
ANTH 487. Field Linguistics (1-8). A laboratory oriented course providing both demonstration and practicum in recording, transcription, and structure of languages. Tapes and field derived data. May be repeated up to 8 credits. Meets anthropology subfield
Linguistics (L).
ANTH 488. Advanced
Research in Cultural
Anthropology (1-8). May be
repeated up to 8 credits. Meets anthropology subfield Cultural Anthropology (C).
Prerequisites: ANTH 130 and 5
upper-division credits in cultural anthropology.
ANTH 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
ANTH 491. Workshop (1-6).
May be repeated for credit.
ANTH 492. Anthropological
Teaching Experience (1-2).
May be repeated for credit.
Grade will either be S or U .
ANTH 493. Anthropological Field Experience (1-8). Individual or group off-campus experience in the field study of anthropological phenomena. May be repeated for credit.

## ANTH 494. Applied GIS

Project (2-6). GIS projects in anthropology, biology, geography, geology, resource management. ANTH 494, GEOG 494, and GEOL 494 are cross-listed courses. ANTH 496. Individual Study (1-6). By permission. May be repeated for credit. Grade will either be S or U .
ANTH 497. Forensics
Capstone (1). A capstone course designed to assess student mastery of fundamental knowledge of forensics through submission of a portfolio of work collected throughout the program, and explore future opportunities. ANTH 497 and LAJ 497 are crosslisted; students may not receive credit for both. Prerequisite: senior standing.
ANTH 498. Special Topics (1-6).
ANTH 499. Seminar (1-5). ANTH 321LAB. Archaeological Methods Laboratory (2). Hands-on application of typical methods used in archaeological investigations, with an emphasis on laboratory techniques for studying
chipped stone, ceramics, faunal remains, and other archaeological materials. Meets anthropology subfield Archaeology (A). Co- or prerequisite: ANTH 321. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of several key archaeological survey methods
Demonstrate understanding of several key archaeological excavation methods Demonstrate understanding of several key methods of chipped stone tool laboratory analysis Demonstrate understanding of key methods for laboratory analysis of other archaeological materials ART 103. Art Appreciation (4). Art Appreciation is an introduction to artistic styles, periods of art, and artistic techniques and processes. It introduces students to the visual components of art, and considers the cultural, economic, and societal significance of art. AHAesthetic Experience. Course will be offered every year (Fall, Winter, Spring and Summer).
Upon successful completion of this course, the student will be able to:
Correctly use the terminology
of art aesthetics and art history. Clearly communicate ideas regarding art.
Identify artistic styles of major historical periods in art. Distinguish and analyze a variety of techniques and formal visual elements of works of art in different media, and across cultures, from an objective foundation.
ART 150. Introduction to
Drawing (3). Introduction to observational drawing. Students will learn to see, interpret, and accurately render objects while exploring a variety of traditional drawing media and techniques. Class meets five hours per week.

Upon successful completion of this course, the student will be able to:
Reproduce a realistic likeness of a three-dimensional object or objects on a flat surface Memorize basic drawing terminology
Use multiple drawing media Practice sight measuring Repeat techniques covered in class in order to enhance comprehension Practice problem solving strategies
ART 170. Two-Dimensional
Design (3). Fundamental exploration of two-dimensional design, with emphasis on the elements and principles of design, skill acquisition, and the development of creative problem solving in design. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Memorize the visual elements and principles of twodimensional design and other design-based terminology
Express creative design-based problem-solving skills Demonstrate competence with a variety of two-dimensional art media
Recognize and practice professional craftsmanship Identify the visual elements and principles of design in their own work and the work of others
Demonstrate technical competence and safety with design tools
ART 171. Three-Dimensional
Design (3). Fundamental
exploration of threedimensional design, with emphasis on the elements and principles of design, skill acquisition, and the development of creative problem solving in design. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Memorize the visual elements and principles of three-
dimensional design and other design-based terminology
Express creative design-based problem-solving skills
Demonstrate competence with
a variety of three-dimensional art media
Recognize and practice professional craftsmanship Identify the visual elements and principles of design in their own work and the work of others
Demonstrate technical proficiency and safety with design tools
ART 172. Computer Fundamentals in Art and
Design (3). This course introduces the use of digital media from the artist's perspective, covering basic skills in MAC OS, Windows, the Adobe Creative Suite, and Microsoft Office. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Demonstrate competence with the Macintosh Operating System
Solve basic digital image editing and retouching problems
Solve basic graphic illustration and design problems Create a document using word processing software Prepare and present artwork using presentation software Create art catalog database using database and spreadsheet software
ART 225. Beginning
Photography (4). Introduction to 35 mm black and white filmbased photography. Emphasis on technical skill development, applied printmaking techniques, and creative problem-solving. Course meets 5 hours per week.
Upon successful completion of this course, the student will be able to:
Operate a 35 mm film camera and process film Identify and apply compositional elements in image creation

Indicate knowledge of historical and contemporary technical and conceptual approaches to photography Describe their own technical and conceptual processes Demonstrate photographic printmaking skills
Practice proficiency in using appropriate photographic vocabulary to analyze work
ART 226. Beginning Photography: Digital (Put on reserve as of $9 / 16 / 15$.) (5).
This course surveys the beginning conceptual and technical tools required to navigate digital photography. Six hours of studio per week. Put on reserve as of 9/16/15. Will go inactive $8 / 24 / 18$. Upon successful completion of this course, the student will be able to:
Define camera controls and visualize image-making within the camera's frame. Create compositions that addressing line, form, emotive content, value, and texture as appropriate for a Digital SLR. Create pictures to review digital files within an image browser program, in which they evaluate contrast, density, and white balance controls. Develop an appropriate digital assessment management system, wherein they define appropriate keyword lists Identify terms appropriate to visual culture and digital photography.
Initiate artist statements that describe how conceptual ideas and techniques apply to project work.
Produce a final portfolio for the web and as a print portfolio.
ART 235. Ancient and
Medieval Art (3). A historical survey of at of the western world from ancient art through art of the Medieval era. Upon successful completion of this course, the student will be able to:
Demonstrate a comprehension
of the basic movements and developments in the history of
art of the ancient and medieval eras
Analyze various works of art; identify their formal elements; define their intrinsic character Identify how works of art express the ideals and values of their respective civilizations and historical periods Distinguish major works of art by identifying artists, periods, national origins, titles and/or subject matter, and their significance to the history of art
Use the terminology of art history

## ART 236. Renaissance <br> through Mid-19th-century

Art (3). A historical survey of art of the western world from the Renaissance to Impressionism. Class meets four hours per week. Prerequisite: ART 235. Upon successful completion of this course, the student will be able to:
Demonstrate a comprehension of the basic movements and developments in the history of art of the 14th through mid19th centuries
Analyze various works of art; identify their formal elements; define their intrinsic character Identify how works of art express the ideals and values of their respective civilizations and historical periods Distinguish major works of art by identifying artists, periods, national origins, titles and/or subject matter, and their significance to the history of art
Use the terminology of art history
Use appropriate language to clearly communicate ideas regarding art
ART 237. Impressionism through Postmodernism (3).
A historical survey of art of the western world from
Impressionism through
Postmodernism. Class meets four hours per week.
Prerequisites: ART 235 and 236.

Upon successful completion of this course, the student will be able to:
Demonstrate a comprehension of the basic movements and developments in the history of Impressionism through Postmodernism
Analyze various works of art; identify their formal elements; define their intrinsic character Identify how works of art express the ideals and values of their respective civilizations and historical periods Distinguish major works of art by identifying artists, periods, national origins, titles and/or subject matter, and their significance to the history of art
Use the terminology of art history
Use appropriate language to clearly communicate ideas regarding art
ART 241. Beginning Wood
Design (4). Introduction to wood as an artistic and design medium. Emphasis on visual communication utilizing basic shaping and finishing processes. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Indicate knowledge of the unique properties of various hardwoods
Demonstrate proficiency using hand tools and machinery Apply creative problemsolving and critical thinking skills
Design works that incorporate conceptual content
ART 246. Beginning Jewelry/
Metals (4). Design and construction of jewelry and small-scale metal objects. Emphasis on technical skill development, applied technique, conceptual problems and introduction to contemporary work. Class meets five hours per week. Upon successful completion of this course, the student will be able to:
Demonstrate familiarity and proficiency in a variety of
machine-assisted and chemical processes
Demonstrate knowledge of issues relating to studio safety Demonstrate proficiency in the process of joining metal through soldering Design and produce complex small-scale, open and closed three-dimensional forms Incorporate conceptual content, including strategies of abstraction, narrative and personal expression Practice proficiency in using the critical languages of art and design to analyze work
ART 250. Figure Drawing
(3). Further continuation of the skills, methods, and media from ART 150, with an emphasis on the study of anatomy on drawing the clothed and nude human form.
Class meets five hours per week. Prerequisite: ART 150.
Upon successful completion of this course, the student will be able to:
Reproduce a realistic likeness of the human figure on a flat surface
Demonstrate proficiency in multiple drawing media Locate and identify elements of human anatomy
Apply accurate sight
measuring in drawing the human figure
Employ techniques covered in class in order to enhance comprehension
Apply problem solving strategies

## ART 251. Beginning

Illustration (4). Introduction
to illustration using a variety of media and industry standard software. Class meets five hours per week. Formerly ART 351; students may not receive credit for both. Prerequisites:
ART 150, and ART 170, and ART 172.
Upon successful completion of this course, the student will be able to:
Create children's book illustrations Create spot illustrations that are suitable for printed or digital publications

Use basic computer software techniques to create illustrations.
Design basic contour drawing templates suitable for scanning Demonstrate proficiency in a variety of media
Create illustrations in a variety of styles
ART 260. Beginning Painting
(4). An introduction to a
variety of painting techniques. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Identify basic painting media and tools
Demonstrate knowledge of color mixing techniques and fundamentals of color theory Apply underpainting techniques and various glazing procedures
Demonstrate knowledge of building canvas stretcher frames and preparing canvases Apply techniques of blending and modeling objects to create volume and space Demonstrate knowledge of issues relating to studio and material safety

## ART 262. Beginning

Watercolor (4). An
introduction to painting, utilizing watercolor and other water-based media. Class meets five hours per week. Upon successful completion of this course, the student will be able to:
Demonstrate competence in traditional water based media and surfaces
Recognize and apply a variety of application techniques Memorize basic terminology specific to water based media Choose the correct combination of brushes and techniques in order to produce a desired visual effect Demonstrate the effects of transparency on color Apply professional craftsmanship in their studio practice
ART 265. Beginning
Ceramics (4). Beginning instruction in ceramics with a
focus on hand-building and wheel-throwing techniques, including concept development and historic, contemporary, and multi-cultural approaches to the medium. Class meets five hours per week. Upon successful completion of this course, the student will be able to:
Indicate knowledge of historical and contemporary technical and conceptual approaches to hand built and thrown ceramics Demonstrate knowledge of issues relating to studio safety Demonstrate proficiency in the process of joining slabs of clay, coil building and the manipulation of wheel thrown forms
Incorporate conceptual content, including strategies of abstraction, narrative and personal expression
ART 274. Beginning
Typography (4). History and application of typography as a tool for visual communication using industry standard software. Class meets five hours per week. Prerequisite: ART 170.
Upon successful completion of this course, the student will be able to:
Identify typographic form and its visual characteristics Recognize type styles that are appropriate to a specific client, product or message
Design single page layouts using type only
Design a book ready for print Use letter and line spacing in headlines and body text Prepare and present a graphic design portfolio
ART 280. Beginning
Sculpture (4). Introduction to the studio experience in sculpture. Emphasis is on the fundamental materials and basic methods of sculpture. Class meets five hours per week.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in the sculptural processes of
addition, subtraction, substitution and mold making Recognize the elements of design as related to the organization of threedimensional form Demonstrate knowledge of issues relating to studio safety Discuss knowledge of historical and contemporary sculpture
ART 282. Computer Art I
(5). Use of computer systems and web software as tools for creative expression.
Prerequisite: ART 170.
Upon successful completion of this course, the student will be able to:
Develop web authoring skills appropriate for web software to create page layouts, links, roll
overs, site maps, and templates Learn web authoring skills appropriate for web software to create images and animations for the web.
Fabricate web imagery to express a concept.
Create a portfolio of electronic art appropriate for viewing on the web.
ART 283. Beginning Graphic Interface Design (4). Design of graphic interfaces for web pages and applications using principles of visual organization and composition. Class meets five hours per week. Prerequisite: ART 172 and ART 274.
Upon successful completion of this course, the student will be able to:
Identify and analyze experience-based problems through a user-centered lens Explore various previsualization methods as they apply to the basic foundation of interactivity
Apply paper prototyping and user testing to gain an understanding of creating usercentered design solutions Create a complete userinterface simulation Apply design competence to user-centered design challenge Develop branding and logo designs

ART 285. Printmaking I (5).
Exploration of techniques and history of prints, with an emphasis on relief printmaking. Six hours of studio per week. Prerequisites: ART 150 and ART 170. Upon successful completion of this course, the student will be able to:
Identify printmaking materials and equipment: Press, plates (lino./wood), cutting tools. Inks and papers.
Demonstrate safe studio practices for tools and presses. Demonstrate the history of printing processes and the social impact of printmaking in art and society.
Demonstrate techniques of relief prints (lino./wood cut) monoprints, collographs as well as processes for full-color printing.
Introduce print portfolio as a resource tool for students.
ART 296. Individual Study (1-6). By permission. May be repeated for credit.
ART 298. Special Topics (16).

ART 299. Seminar (1-5).
ART 300. Papermaking (Put on reserve as of $9 / 16 / 15$.) (4).
Hand papermaking techniques, exploring historical and contemporary works/methods. Watermarking, pigmentation, moldmaking, with emphasis on sheetforming and fiber preparation. May be repeated for credit. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:
Prepare fibers for papermaking, including a variety of fiber sources (linters, raw pulp, and plant fibers) and beating techniques (by hand, and using the Hollander Beater).
Produce consistent, archival quality paper sheets.
Design and produce a personal watermark for sheet forming. Prepare color pulps, through dye and pigmentation processes.

Research and discuss historical and technical aspects of hand papermaking.
Work safely with the materials and equipment in the paper studio.

## ART 324. History of

Photography (4). An historical survey of photography from its beginnings to the present, focusing on interrelationships between photography and other visual arts, changing technologies, and contributions of major photographers and art movements. Prerequisite: junior standing.
Upon successful completion of this course, the student will be able to:
Identify the processes used to produce photographic images and discuss each in terms of its inherent aesthetics
Define and correctly use relevant terms Apply research and critical thinking skills to analyze the relationship between photography and other visual arts
Synthesize and summarize information from a variety of sources regarding style, technique and intentions that distinguish particular photographers
Identify and formulate a set of criteria to visually analyze a photographic image Appraise significance of photographic medium in relation to visual culture
ART 330. Art in the Elementary School (4). Content and methodology for teaching art in the elementary school. Prerequisite: conditional or full admission to the Teacher Certification Program.
ART 332. Art Curriculum and Field Experience (4).
Developing discipline-based art education curriculum for the elementary and middle school, as well as preparing curriculum to teach Friday children's art classes. Prerequisite: ART 330 and current WSP/FBI fingerprint clearance.

ART 333. Art, Design, and
Popular Culture (4). An exploration of artistic eras from a cultural perspective. focus is on the relationship of the fine arts, architecture and design to the historical era in which works were created. The course explores the ways in which art influences and is influenced by its cultural and social context. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Identify and distinguish artistic styles of major historical periods in art
Use appropriate language to clearly communicate ideas regarding art, design and culture
Synthesize and summarize information from a variety of sources regarding Concepts that distinguish particular movements in art and how they relate to and interact with the cultures, and cultural issues, that created them
Apply research and critical thinking skills to analyze how works of art and design form an integral cultural element within the broader framework of social, cultural, economic and/or political processes from an objective foundation Evaluate readings in order to assemble a body of relevant information regarding social and cultural realities of particular artistic eras and how they relate to local, national, and international communities
ART 341. Intermediate
Wood Design (4). Design and fabrication of furniture forms. Emphasis on creative form development utilizing sophisticated fabrication and finishing processes. Class meets five hours per week. Prerequisite: ART 241.
Upon successful completion of this course, the student will be able to:
Design and create furniture forms

Apply creative problem solving and critical thinking skills related to studio furniture design and fabrication Demonstrate proficiency in shaping, fabricating and finishing wood and woodbased materials
Design works that incorporate conceptual content Demonstrate knowledge of issues relating to studio, tools and material, safety
ART 350. Mixed-media
Drawing (4). Continued
exploration in drawing with emphasis on mixed-media processes. Class meets five hours per week. Prerequisite: ART 250.
Upon successful completion of this course, the student will be able to:
Apply traditional and mixed media processes to create work using narrative,
representational and/or abstract imagery
Demonstrate the ability to develop content and context through preliminary drawings Demonstrate knowledge of issues relating to studio and material safety
Examine contemporary artists
whose work makes use of traditional and experimental media
Students will use correct vocabulary to communicate theoretical approaches to drawings
ART 351. Intermediate
Illustration (4). Continues exploration of illustration stressing development of personal expression in variety of media and industry standard software. Class meets five hours per week. Formerly ART 451; students may not receive credit for both. Prerequisite: ART 251 and permission. Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in the use of advanced illustration software
Apply an awareness of visual elements of global cultures

Demonstrate proficiency incorporating text and image Demonstrate proficiency using a variety of illustration media
ART 362. Intermediate
Watercolor (4). Further development of the techniques and skills acquired in ART 262, with emphasis on personal expression. Class meets five hours per week. Prerequisite: ART 262.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in water based media Compare and contrast application techniques Express personal style Experiment with nontraditional surfaces Apply professional craftsmanship in their studio practice
ART 368. Ceramic Materials and Effects (Put on reserve as of $9 / 16 / 15$. ) (5). This course covers an investigation into materials and their effects in the media of ceramics. Glaze calculation and testing along with clay body tests will be the main focus of this course. Low fire, midrange and high-fire temperatures will also be addressed. May be repeated up to 10 credits. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: ART 265.

Upon successful completion of this course, the student will be able to:
Use a triple beam scale to weigh out materials. Identify a flux, refractory, and glass former.
Mix a low fire, midrange and high fire clay body.
Tabulate the quantity of materials in a glaze or lay formula and bring it into unity, (100\%).
Correctly identify a variety of standard glazes and categorize them as high or low fire.
ART 370. Beginning Layout and Design (4). Application of two and three-dimensional design principles and theoretical concepts to layout
and design using industry standard software. Class meets five hours per week.
Acceptance into the BFA graphic design major via portfolio review. Prerequisites: ART 150, and ART 171, and ART 172, and ART 274 and permission.
Upon successful completion of this course, the student will be able to:
Create thumbnail sketches with revisions for design layout
Create original photography and illustration for use within their design projects Use the modular grid system to create visual relationships between image and typography Demonstrate proficiency with industry standard design technology
Design a logo/brand for a client
Prepare and present a graphic design portfolio
ART 371. Intermediate
Layout and Design (4).
Continued work in design composition with emphasis on the application of letter, forms, color, image and concept using industry standard software. Class meets five hours per week. Prerequisite: ART 370.
Upon successful completion of this course, the student will be able to:
Create thumbnail sketches with revisions for advanced design layout
Create original images for use within their design projects Use the modular grid system to create complex visual relationships between image and typography
Prepare digital files for offset printing
Design a variety of promotional materials for a client
Prepare and present a revised graphic design portfolio
ART 372. Beginning Design and Production (4). Design composition with emphasis on production techniques, as well as the application of type, image and concept using industry standard software.

Class meets five hours per week. Prerequisite: ART 371. Upon successful completion of this course, the student will be able to:
Assess the needs of a client and create a variety of designs for the client
Create original photography and illustration for use within their design projects Demonstrate proficiency in the preparation of designs for offset printing
Select refined ideas from thumbnail sketches Assemble and present a revised graphic design portfolio
ART 374. History of Graphic
Design (4). A historical survey of the graphic arts from their beginning to the present.
ART 382. Computer Art II
(Put on reserve 9/16/16) (5).
Exploration of several software programs and computer output devices for creation of electronic art. (Put on reserve 9/16/16. Last taught in 2012.
Will go inactive $8 / 24 / 19$.)
Upon successful completion of this course, the student will be able to:
Develop advanced computer skills appropriate for creating filters, palettes, layers, animations, and other advanced visual effects.
Demonstrate diverse proficiency with output options
from print, film, web, digital camera and scanners, and/or video output.
Fabricate an installation or web site to express a conceptual concept.
Demonstrate advanced creative skills incorporating the conceptual as well as technical tools.
ART 383. Intermediate
Graphic Interface Design (4).
Further exploration of graphic
interface design for web pages and applications using principles of visual organization and composition. Class meets five hours per week. Prerequisite: ART 283 and permission.

Upon successful completion of this course, the student will be able to:
Utilize and focus on usability as a key aspect of web design Use various pre-visualization and planning methods as they apply to web design Identify and interpret design components of web pages Apply design proficiency to graphic interface design for the web
Identify and utilize professional practices of web design
Demonstrate proficiency in the use of Adobe Muse software
ART 389. Contemporary
Concepts in Art (Put on reserve as of $9 / 16 / 15$ ) (4).
Exploration of the contextual, formal, and philosophic meanings of current art movements and theories in regards to their relevance and place in contemporary art practice. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
ART 396. Individual Study (1-6). May be repeated if subject is different.
ART 397. Honors (1-12). Prerequisite: admission to department honors program.
ART 398. Special Topics (16).

ART 399. Seminar (1-5). May be repeated if subject is different.
ART 414. Recent Art (4). The visual arts of the last 25 years, including the traditional forms of painting, sculpture and architecture, and newer forms including video, computer, and performance art. Prerequisite:
ART 237.

## ART 416. International

Experience in Art,
Architecture, and Design (4).
An in-class and on-site study
of art, architecture and design which provides firsthand experience of art and culture of countries that have had an enormous impact on history. May be repeated up to 8 credits. By permission of instructor. Course will be offered every year (Winter).

Upon successful completion of this course, the student will be able to:
Identify, define and differentiate major works of art, various movements and developments that most clearly express the ideals and values of relevant artistic eras' cultural perspectives
Distinguish and analyze the variety of techniques and formal visual elements of individual works of art, architecture and design Evaluate and interpret various works of art in relation to the context and historical background in which they were created
Synthesize, summarize and assess information from a variety of sources regarding concepts that define and distinguish the movements and traditions of art, architecture and design
Summarize ways in which art has been a significant element of human society throughout history
Examine and interpret the geographical and cultural context of significant works of art, architecture and design
ART 420. American Art and Architecture (4). A study of art and architecture in America from the Colonial era to today. Contributions of Americans to world art, the role of art in American life and the work of canonical artists and architects are stressed. Recognition of major and styles is emphasized. Prerequisite: junior standing or higher. Upon successful completion of this course, the student will be able to:
Distinguish and analyze the variety of techniques and formal visual elements of individual works of art in different media. Evaluate and interpret various works of art in relation to the context and historical background in which they were created.
Identify, define and
differentiate the various styles
that most clearly express the ideals and values of American society from the colonial period to the present. Identify artists, titles of works, stylistic period and significance of major works of art and architecture.
Define and correctly use artist terms relevant to the artistic periods studied.
Synthesize, summarize and assess information from a variety of sources regarding concepts that define and distinguish the movements and traditions in American art.

## ART 425. Advanced

 Photography (4).Development of a personal portfolio with emphasis on developing conceptual ideas through research, planning, and experimentation. Class meets five hours per week. May be repeated up to 16 credits. Prerequisites: ART 325A, and ART 325B, and ART 325C. Upon successful completion of this course, the student will be able to:
Design and manage a longterm photography project Create a portfolio that demonstrates technical expertise and utilizes original conceptual content Evaluate current scholarship regarding the photograph as contemporary art
Apply advanced-level, critical analysis to photographic images
Create and prepare submissions for professional exhibition opportunities ART 430. Components of Art Education (Put on reserve 9/16/17) (4). Content and strategies for teaching aesthetics, art criticism, art history, and art production in art education; writing, implementing, and assessing quality art lessons. (Put on
reserve 9/16/17. Will go
inactive $8 / 24 / 2020$.)
Prerequisite: ART 330.
ART 432. Art in Secondary
School (Put on reserve
9/16/17) (4). Current
philosophies and curriculum in
the secondary school; objectives, planning, methods of teaching and evaluation. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Prerequisite: ART 430.
ART 441. Advanced Wood
Design (4). Advanced design and fabrication of furniture forms, with emphasis on research and development utilizing advanced or innovative fabrication and finishing processes. Class meets five hours per week. May be repeated up to 16 credits. Prerequisite: ART 341. Upon successful completion of this course, the student will be able to:
Design and create advanced unique studio furniture Apply advanced creative problem solving and critical thinking skills related to studio furniture design and fabrication Demonstrate expertise in shaping, fabricating and finishing wood and woodbased materials Design advanced works that incorporate conceptual content Demonstrate knowledge of issues relating to studio, tools and material, safety

## ART 446. Advanced

 Jewelry/Metals (4). Advanced exploration of personal expression in jewelry and/or metals. Emphasis on selfdirection, conceptual and technical mastery and professionalization of practice. Class meets five hours per week. May be repeated up to 16 credits. Prerequisites: ART 346A, and ART 346B, and ART 346C or by permission after having taken two of these three courses. Upon successful completion of this course, the student will be able to:Create works that demonstrates expertise in advanced Jewelry/Metals processes Demonstrate knowledge of issues relating to studio, tools and material, safety Formulate and present proposals for a cohesive body of self- directed work

Evaluate and modify project plans to create a body of work Write a cohesive statement about their creative work and professional record Create visual portfolio, seek and enter juried exhibition opportunities
ART 450. Advanced Drawing
(4). Further development of skills in drawing with emphasis on building a cohesive body of work. Class meets five hours per week. May be repeated up to 16 credits. Prerequisite: ART 250.
Upon successful completion of this course, the student will be able to:
Create a cohesive body of work that communicates advanced concepts Clearly articulate complex ideas regarding advanced concepts in painting
Students will use correct vocabulary to communicate theoretical concepts of drawing Create projects using monotypes, image transfers and mixed media processes Examine various contemporary artists whose work is primarily based in drawing media
ART 460. Advanced Painting
(4). Advanced exploration of painting with an emphasis on building a cohesive body work. Class meets five hours per week. May be repeated up to 16 credits. Prerequisites: ART 360A, and ART 360B, and ART 360C or permission of instructor.
Upon successful completion of this course, the student will be able to:
Create a cohesive body of work that communicates advance concepts Clearly articulate complex ideas regarding advanced concepts in painting
Students will use correct vocabulary to communicate theoretical concepts of painting Examine various contemporary artists
Demonstrate knowledge of issues relating to studio and material safety

ART 465. Advanced
Ceramics (4). Advanced instruction in ceramics with a focus on developing technical expertise and creating a visual voice in the medium through self-directed research in historical, contemporary, and multi-cultural approaches to the medium. Class meets five hours per week. May be repeated up to 16 credits. Prerequisites: ART 365A, and ART 365B, and ART 365C, or permission of instructor. Upon successful completion of this course, the student will be able to:
Create work that demonstrates expertise in a variety of techniques within hand-built, wheel thrown and/or molded work
Demonstrate knowledge of issues relating to studio, tools, and material safety
Demonstrate advanced knowledge of historical and contemporary technical and conceptual approaches to ceramics
Create works that incorporate conceptual content, including strategies of abstraction, narrative and personal expression Analyze the outcomes of specific temperatures and firing techniques on test clay and glaze materials Evaluate results from advanced firing techniques Students will complete work that incorporates a variety of techniques
ART 470. Advertising Graphic Design (4). Concept and design as applied to advertising problems with emphasis on presentation and communication skills with analysis and implementation of marketing strategies. Class meets five hours per week. Acceptance into the BFA graphic design major via portfolio review. May be repeated up to 8 credits. Prerequisite: by permission. Upon successful completion of this course, the student will be able to:

Utilize a set of methodologies
for brainstorming as an individual and creative team Formulate creative briefs for an advertising campaign Design an advertising campaign
Solve design problems as a member of a creative team Apply an integrated theme and concept to a complete advertising campaign system Write headlines and copy
ART 471. Corporate Graphic
Design (4). Concept and design as applied to corporate graphic design problems with emphasis on presentation and communication skills with analysis and implementation of marketing strategies. Class meets five hours per week. Prerequisite: ART 470.
Upon successful completion of this course, the student will be able to:
Prepare a strategic mission statement and core values worksheet
Demonstrate expertise in the use of a branding process that might include identify brand positioning, brand image, brand affiliation, and the brand vision
Formulate creative briefs as part of the branding process Generate and revise thumbnails, roughs, color studies and type studies for the full ideation process of design
Design a professional logo
ART 472. Intermediate
Design and Production (4).
Development of professional practices, creative problem solving techniques, and understanding and establishing relationships with vendors. Class meets five hours per week. Prerequisite: ART 471.
Upon successful completion of this course, the student will be able to:
Use industry standard software to design advanced multi-page projects
Demonstrate expertise in the preparation of complex, multipage designs for offset printing Demonstrate time management skills

Prepare a job proposal and cost estimate

## ART 474. Intermediate

Typography (4). Exploration of advanced type and image relationships, including conceptual, structural and visual elements with an emphasis on history and terminology. Class meets five hours per week. Prerequisites: ART 172 and ART 274. Upon successful completion of this course, the student will be able to:
Use industry standard software to design advanced typographic projects
Design a unique typeface using digital software
Design headlines and body text using advanced letter and line spacing concepts Design signage and wayfinding systems Demonstrate time management skills
Prepare, revise and present a graphic design portfolio
ART 480. Advanced Sculpture (4). Advanced studies in sculpture. Emphasis is on creative self-expression and the development of a selfdirected body of work. Class meets five hours per week. May be repeated up to 16 credits. Prerequisites: ART 380A and ART 380B or by permission.
Upon successful completion of this course, the student will be able to:
Create a cohesive body of selfdirected sculptural work Use the visual strategies of sculpture as a mode of communication and expression Demonstrate knowledge of issues relating to studio, tools, and material safety Utilize advanced vocabulary relevant to sculpture Prepare and present research on contemporary sculptural work as it relates to the student's self-directed project
ART 483. Advanced Graphic Interface Design (4).
Advanced exploration of graphic interface design for web pages and applications
using principles of visual organization and composition. Class meets five hours per week. Prerequisite: ART 383 and permission.
Upon successful completion of this course, the student will be able to:
Evaluate how historical and contemporary design theory informs "experience design" as a field of practice
Apply the processes and methodologies of "experience design" and "interaction design"
Create comprehensive and systematic team design project that addresses local issues or needs
Solve complex, "experience design" problems that address user needs
Create a system of design assets that address print and digital media needs
ART 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit. Grade will either be S or U .
ART 491. Workshop (1-6). May be repeated for credit. ART 495. Studio Project (2). Preparation of a professional portfolio and presentation of the portfolio or of a body of work for exhibition. Satisfies end-of-year assessment requirements. Must be taken during one of the last two quarters prior to graduation. Prerequisite: by permission. Upon successful completion of this course, the student will be able to:
Demonstrate advanced proficiency in at least one studio area or graphic design Prepare a body of work for exhibition and/or portfolio Write a cohesive statement about their creative work and professional record

Plan career objectives
ART 497. Honors (1-12). Prerequisite: admission to department honors program. ART 498. Special Topics (16).

ART 499. Seminar (1-5). ART 325A. Intermediate Photography: Color (4) Introduction to digital color photography with emphasis on color image capture, editing, printing, and artificial lighting as well as historical and contemporary uses of color. Class meets five hours per week. Prerequisite: ART 225. Upon successful completion of this course, the student will be able to:
Demonstrate technical proficiency using a digital camera to produce color photographs
Employ current photo-editing applications
Apply knowledge of digital visual culture, including conceptual and design elements
Analyze photographic images Demonstrate proficiency utilizing artificial lighting in the creation of photographic images
Write about creative photographic processes in relation to their own work
ART 325B. Intermediate Photography: Analog Processes (4). Continued exploration of film-based darkroom photography, with the introduction of new techniques, processes and applications. Incorporation contemporary practices and concepts. Class meets five hours per week. Prerequisite: ART 225.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in alternative analog processes Apply creative solutions to alternative, analog photographic applications Analyze photographic images
Examine the work of contemporary photographers
working with non-traditional alternative processes Demonstrate proficiency utilizing artificial lighting in the creation of photographic images
Write about creative, nontraditional photographic processes in relation to their own work
ART 325C. Intermediate Photography: Visual Narratives (4). Exploration of the creative and conceptual processes of utilizing the photographic medium to explore visual language. Class meets five hours per week. Prerequisite: ART 225.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in various methods of creating narrative
Apply knowledge of both analog and digital capture skills
Analyze photographic images as they relate to the theme of visual narratives Demonstrate proficiency utilizing artificial lighting in the creation of photographic images
Assemble a print and digital portfolio addressing technical
and conceptual concerns Write about creative photographic processes in relation to their own work
ART 346A. Intermediate Jewelry/Metals: Casting and Link Structures (4). Technical and conceptual aspects of jewelry and metalwork through model-making, casting, moldmaking, and construction of linkages and chains. Emphasis on personal exploration. Class meets five hours per week. Prerequisite: ART 246.
Upon successful completion of this course, the student will be able to:
Demonstrate continued proficiency and advanced application of processes Apply creativity to model making, casting, mold making and linkage structures

Demonstrate knowledge of issues relating to studio, tools and material, safety Plan and present proposals for creative model making, casting, mold making and linkage structures work Indicate knowledge of contemporary conceptual approaches to jewelry/metalsmithing Create works that incorporate conceptual content
ART 346B. Intermediate Jewelry/Metals: Enameling
(4). Technical and conceptual aspects of jewelry and metalwork with focus on enameling (glass on metal). Emphasis on personal exploration. Class meets five hours per week. Prerequisite: ART 246.
Upon successful completion of this course, the student will be able to:
Demonstrate continued proficiency and advanced application of processes Apply creativity to various classical enameling techniques Demonstrate knowledge of issues relating to studio, tools and material, safety Plan and present proposals for creative enameling work Indicate knowledge of contemporary conceptual approaches to jewelry/metalsmithing Create works that incorporate conceptual content
ART 346C. Intermediate Jewelry/Metals: Form and Surface (4). Technical and conceptual aspects of jewelry and metalwork with focus on form development (chasing, dieforming and electroforming) and surface embellishment techniques. Emphasis on personal exploration. Class meets five hours per week. Prerequisite: ART 246.
ART 360A. Intermediate
Painting: Narrative and
Representation (4). Continued exploration of painting techniques with a focus on narrative and representation. Class meets five hours per week. Prerequisite: ART 260.

Upon successful completion of this course, the student will be able to:
Utilize pictorial narrative, sequential narrative and/or implied narrative
Use representational imagery
and specific surfaces to create content
Demonstrate knowledge of issues relating to studio and material safety
Students will use correct vocabulary to communicate theoretical approaches to narrative painting Examine contemporary artists whose work is directly related to representational and narrative art making
ART 360B. Intermediate
Painting: Color (4). Further development of painting techniques with emphasis on color as a conceptual, formal, and organization tool. Class meets five hours per week. Prerequisite: ART 260. Upon successful completion of this course, the student will be able to:
Create a body of work with color as the major organizational design principle. Examine artists who use color as subject matter Students will apply concepts such as: expression, meaning and content to their work Create works of art using alternative painting surfaces Differentiate between color used as symbol, as expression, and as description
ART 360C. Intermediate Painting: Abstraction (4).
Further development of painting techniques with emphasis on abstraction as a conceptual, formal, and organizational tool. Class meets five hours per week. Prerequisite: ART 260.
Upon successful completion of this course, the student will be able to:
Demonstrate basic strategies of abstract painting
Create works utilizing a variety of application techniques

Students will use correct vocabulary to analyze nonobjective art
Demonstrate the ability to abstract form from the natural world
ART 365A. Intermediate Ceramics: Hand-Building
(4). Intermediate instruction in ceramics with a focus on developing hand-building techniques, including more indepth concept development and historic, contemporary, and multi-cultural approaches to the medium. Class meets five hours per week. Prerequisite: ART 265. Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in the process of production, altering and measuring wheel-thrown components
Demonstrate knowledge of issues relating to studio, tools, and material safety Demonstrate intermediate knowledge of historical and contemporary technical and conceptual approaches to complex thrown and altered ceramic forms
Create works that incorporate conceptual content, including strategies of abstraction, narrative and personal expression

## ART 365B. Intermediate

Ceramics: Wheel-Throwing
(4). Intermediate instruction in ceramics with a focus on developing wheel-throwing techniques, including more indepth concept development and historic, contemporary, and multi-cultural approaches to the medium. Class meets five hours per week. Prerequisite: ART 265. Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in the process of production of handbuilt ceramic form Demonstrate knowledge of issues relating to studio, tools, and material safety Demonstrate intermediate knowledge of historical and
contemporary technical and conceptual approaches to complex hand built forms Create works that incorporate conceptual content, including strategies of abstraction, narrative and personal expression
ART 365C. Intermediate Ceramics: Mold-Making (4).
Intermediate instruction in ceramics with a focus on moldmaking and mold materials including plaster, plywood and polystyrene molds, including more in-depth concept development and historic, contemporary, and multicultural approaches to the medium. Class meets five hours per week. Prerequisite: ART 265.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in the process of producing forms with molds
Demonstrate knowledge of issues relating to studio, tools, and material safety Demonstrate intermediate knowledge of historical and contemporary technical and conceptual approaches to complex molded forms Create works that incorporate conceptual content, including strategies of abstraction, narrative and personal expression

## ART 380A. Intermediate

 Sculpture: Object and Form(4). A continuation of the studio experience in sculpture, emphasizing the development of object and form, a higher level of technical competence, continued exploration of materials and conceptual development. Class meets five hours per week. Prerequisite: ART 280.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in sculptural processes including assemblage, fabrication and construction Develop content and context using object and form

Demonstrate knowledge of issues relating to studio, tools, and material safety Utilize correct terminology relevant to sculpture Prepare and present research on a contemporary sculptor
ART 380B. Intermediate Sculpture: Installation Art
(4). A continuation of the studio experience of sculpture, emphasizing the development of installation art within a spatial context, higher level of technical competence, continued exploration of materials and conceptual development. Class meets five hours per week. Prerequisite: ART 280
Upon successful completion of this course, the student will be able to:
Develop content and context within the format of installation
Examine how specific sites informs the content and context of installation art Demonstrate knowledge of issues relating to studio, tools, and material safety Utilize correct terminology relevant to installation art Prepare and present research on a contemporary installation artist
ART 496A. Individual Study:
Computer Art (1-6). By permission. May be repeated for credit.
ART 496C. Individual Study:
Ceramics (1-6). By
permission. May be repeated for credit.
ART 496D. Individual Study:
Drawing (1-6). By permission. May be repeated for credit.
ART 496E. Individual Study:
Art Education (1-6). By permission. May be repeated for credit.

## ART 496G. Individual

Study: Graphic Design (1-6).
By permission. May be repeated for credit.
ART 496H. Individual
Study: Art History (1-6). By permission. May be repeated for credit.
ART 496J. Individual Study: Jewelry/Metals (1-6). By
permission. May be repeated for credit.
ART 496P. Individual Study:
Painting (1-6). By permission. May be repeated for credit.
ART 496R. Individual Study:
Printmaking (1-6). By permission. May be repeated.
ART 496S. Individual Study:
Sculpture (1-6). By
permission. May be repeated for credit.
ART 496T. Individual Study:
Photography (1-6). By
permission. May be repeated for credit.
ART 496W. Individual
Study: Wood Design (1-6).
By permission. May be repeated for credit.
ASL 151. American Sign
Language (5). Conversational approach with intensive visual/manual drill. Firm foundation in basic signs and structural principles of the language. Courses must be taken in sequence.
Upon successful completion of this course, the student will be able to:
Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Low level.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Low level.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community. ASL 152. American Sign
Language (5). Conversational approach with intensive visual/manual drill. Firm foundation in basic signs and structural principles of the language. Courses must be taken in sequence. Prerequisite: ASL 151.
Upon successful completion of this course, the student will be able to:

Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Midlevel.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Midlevel.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community.
ASL 153. American Sign
Language (5). Conversational approach with intensive visual/manual drill. Firm foundation in basic signs and structural principles of the language. Courses must be taken in sequence. Prerequisite: ASL 152.
Upon successful completion of this course, the student will be able to:
Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Highlevel.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Novice Highlevel.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community.
ASL 251. Second-year
American Sign Language (5). How signers construct meaning and messages in ASL, grammatical variation, and discourse strategies is covered with special focus on increasing non-manual behavior. Courses must be taken in sequence.

Upon successful completion of this course, the student will be able to:
Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the intermediate Low level.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Intermediate Low level.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community.
ASL 252. Second-year American Sign Language (5). How signers construct meaning and messages in ASL, grammatical variation, and discourse strategies is covered with special focus on increasing non-manual behavior. Courses must be taken in sequence. Prerequisite: ASL 251. Upon successful completion of this course, the student will be able to:
Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the intermediate Low level.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign Languages (ACTFL) guidelines at the Intermediate Low level.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community. ASL 253. Second-year American Sign Language (5). How signers construct meaning and messages in ASL, grammatical variation, and discourse strategies is covered with special focus on
increasing non-manual behavior. Courses must be taken in sequence.
Prerequisite: ASL 252.
Upon successful completion of this course, the student will be able to:
Develop listening and reading skills in target language in accordance with the American Council on Teaching Foreign
Languages (ACTFL)
guidelines at the Novice Mid level.
Develop speaking and writing skills in target language in accordance with the American Council on Teaching Foreign
Languages (ACTFL)
guidelines at the Novice Mid level.
Acquire an overview of historical and cultural features and be able to identify the cultural practices of the American Deaf community.
ASL 298. Special Topics (1-
6). May be repeated if subject is different.
ASL 299. Seminar (1-5). May
be repeated if subject is
different.
ASL 301. American Sign
Language Literature (5).
Introduces aspects of ASL
literature, including poetry,
narrative, humor and folklore.
Students will develop
knowledge of the literary
history of ASL and will
acquire skills in
comprehending and producing
ASL literary texts. By
permission only. Prerequisite: ASL 253.
Upon successful completion of this course, the student will be able to:
Identify the following forms of ASL Literature: Poetry, narrative, humor and folklore. Demonstrate examples of ASL poetry, narrative, humor and folklore.
Demonstrate knowledge of and sensitivity for Deaf Culture and the Place of ASL Literature in the culture.
Identify and describe significant literary events relating to American Sign Language.

ASL 310. Deaf Culture (5).
Overview of the cultural development and linguistic history of the Deaf. Provides a comprehensive study of the deaf-world through analysis of historical events, sociolinguistic factors that affect ASL and current issues. By permission only. Prerequisite: ASL 253. Upon successful completion of this course, the student will be able to:
Identify and explain significant events in the history of Deaf people in America and abroad. Identify and describe the social beliefs, art, language, history, values and shared institutions of Deaf people in America. Demonstrate understanding of and respect for Deaf Culture and its members.
Evaluate events in the history of Deaf people and describe their impact on modern day members of Deaf Culture.
ASL 343. Deaf Education (5). Overview of current practices concerning the use of ASL in the educational setting. Topics explored will include manually coded English systems, bilingual bicultural education, and language acquisition in deaf children. Prerequisite: C+ or higher in ASL 310. By permission only.
Upon successful completion of this course, the student will be able to:
Examine and discuss a variety of common topics likely to be encountered in the target language culture. Use intermediate vocabulary and grammar appropriately, orally and in writing. Analyze and interpret simple texts.
Recognize appropriate use of vocabulary and grammar in oral and written input. Identify cultural practices. Demonstrate appropriate use of past, present and future indicative mood.
ASL 396. Individual Study (1-6). May be repeated if subject is different.

ASL 397. Honors (1-12).
Prerequisite: admission to department honors program.
ASL 398. Special Topics (1-
6). May be repeated if subject is different.
ASL 399. Seminar (1-5). May
be repeated if subject is different.
ASL 496. Individual Study (1-6). May be repeated if subject is different.
ASL 497. Honors (1-12).
Prerequisite: admission to department honors program.
ASL 498. Special Topics (1-
6). May be repeated if subject is different.
ASL 499. Seminar (1-5). May
be repeated if subject is different.
ASP 298. Special Topics (1-
6). May be repeated if subject is different.
ASP 299. Seminar (1-5). May
be repeated if subject is
different.
ASP 305. Accessibility and
User Experience (3). Quality
of life issues of accessibility in
everyday experiences and
environments. Common
conditions (disabilities)
requiring proactive
access. Changes in laws and attitudes about the need for accessibility. Current careers requiring competence in troubleshooting accessibility. Course will be offered every year (Fall, Winter, Spring and Summer).
Upon successful completion of this course, the student will be able to:
Identify assumptions of mobility, perception, cognition, and engagement regarding common life activities (i.e. ableism).
Define disability etiquette. Distinguish between theoretical models of disability, e.g. medical, social, economic, functional, identity, moral, charity, and destiny, and examine the implications of beliefs and attitudes about disability on public and personal perceptions of disability.

Differentiate categories and levels of disability and common barriers associated with them (i.e., eligibility and entitlement).
Define assistive technologies and their uses.
List prominent legal documents and landmark events related to disability and human rights. Identify accessibility competencies required by different careers.
ASP 325. Universal Design
(4). Proactive accessibility
design for high incidence
problems in commercial,
leisure, occupational, and personal living spaces. Assistive technology, adapted architecture, differentiated activity. Standards for safety and equity. ADA compliance. Risk management strategies. Prerequisite: ASP 305. Upon successful completion of this course, the student will be able to:
Analyze scenarios of interaction for their effective inclusion of people with disabilities and limitation. Define principles of universal design.
Identify technological applications useful for designing individual accommodation and universal access.
Explain ADA compliance in terms of safety and liability. Outline risk management strategies.

## ASP 365. Assistive

Technology: Tactile Graphics
(3). Use of both low and high technology methods to translate verbal information into Braille. Includes standards for developing content and designing products. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Identify what information must be conveyed from print graphic to a tactile graphic.

Recognize the features in print graphics to be omitted in tactile graphics.
Analyze finished tactile graphics for clarity and effectiveness according to standards and guidelines. Compare different production options in terms of cost and benefit.
Produce tactile graphics using a variety of materials, equipment, and software. Outline steps necessary to become certified by National Library Service for the Blind and Physically Handicapped. Compare agencies and enterprises offering services for visual impairment.
ASP 396. Individual Study
(1-6). May be repeated if subject is different.
ASP 397. Honors (1-12).
Prerequisite: admission to department honors program.
ASP 398. Special Topics (1-
6). May be repeated if subject is different.
ASP 399. Seminar (1-5). May be repeated if subject is different.
ASP 435. Accessible
Information Design (5).
Standards for barrier-free
public communication, issues of disclosure and advocacy, laws and civil rights legislation and court decisions, and social justice and social psychology aspects will be addressed for all environments, e.g. work, learning, commerce. Course will be offered every year (Fall, Winter, Spring and Summer). Co- or Prerequisite: ASP 325.
Upon successful completion of this course, the student will be able to:
Identify common barriers to inclusive information in terms of content and medium.
Analyze rhetorical implications of accessible information design.
Define and illustrate guidelines.
Identify and assess technological applications useful for making information accessible.

Interpret policy and law as applied to making advertising and other public communication accessible. Outline stakeholder responsibilities and interactions.
Explain the importance of evacuation, e.g. during a threat of fire, and predict the dangers to self and others resulting from ineffective communication. Explain the importance of communication in emergency circumstances.
ASP 485. Accessibility
Studies Capstone (3).
Experiential-based capstone course. Accessibility competence demonstrated in portfolio and capstone project. Laboratory time will include a variety of service learning, professional visits, and applied practical experience. Strategies for engaging stakeholders in trouble-shooting accommodations. Permission by department. Course will be offered every year. Course will not have an established pattern. Co- or prerequisite: ASP 435. Upon successful completion of this course, the student will be able to:
Identify common barriers to inclusive information in terms of content and medium.
Analyze rhetorical implications of accessible information design.
Define and illustrate guidelines.
Identify and assess technological applications useful for making information accessible.
Interpret policy and law as applied to making advertising and other public communication accessible. Outline stakeholder responsibilities and interactions.

## ASP 490. Accessibility

Studies Internship (1-12).
Field experience in a realworld context for observing, analyzing and investigating principles and issues crucial to developing competence in
understanding efforts to minimize barriers for all people, especially those with specific limitations in their perception or mobility.
Fingerprinting may be required. May be repeated up to 20 credits. Grade will be either S or U. Course will not have an established scheduling pattern. Co- or Prerequisite: ASP 435.
ASP 492. Advanced Practicum in Accessibility Studies (1-15). Field experience in a real-world context for preparing career applications of accessibility competencies. May be repeated to 15 credits. Fingerprinting may be required prior to enrollment. Permission of the department. Course will not ahve an established scheduling pattern. Co- or Prerequisite: ASP 435.
Upon successful completion of this course, the student will be able to:
Investigate real-world scenarios for high-incidence accessibility issues. Observe and analyze realworld scenarios for compliance with accessibility laws and policies.
Discuss solutions to improve accessibility in a realistic context for realistic people with high incidence disabilities.
Synthesize field experience and professional literature to interpret real world phenomena and personal attitudes toward accessibility. Demonstrate appropriate interactions with stakeholders in field, e.g. disability etiquette.
ASP 496. Individual Study
(1-6). May be repeated if subject is different.
ASP 497. Honors (1-12). Prerequisite: admission to department honors program.
ASP 498. Special Topics in Accessibility (1-6).
Investigate principles and issues of accessibility applied to specific practical or creative contexts. May be repeated under different topics up to 20
credits. Course will not have an established scheduling pattern.
ASP 499. Seminar (1-5). May be repeated if subject is different.
AST 102. Introduction to Asian Studies (3). An interdisciplinary introduction to the study of Asia; emphasizing geography, history, culture, and economics. SB-Perspectives on World Cultures (W). Course will be offered every year (Fall, Winter, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Articulate an understanding of the history, cultures, and societies of Asia.
Analyze important trends in Asia and explain the causes and effects of those trends. Identify contemporary issues impacting Asian society, culture, politics and international affairs. Identify and articulate the various ways in which Asia is studied within the academy.
AST 298. Special Topics (1-
6). May be repeated if subject is different.
AST 299. Seminar (1-5). May be repeated if subject is different.
AST 301. Chinese Literature
in Translation (4). A survey of Chinese literature in translation. AST 301 and CHIN 301 are equivalent courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of Chinese culture and trace the influence and representation of this culture in the literary works.
Characterize the basic features of traditional Chinese literary forms or genres (prose, poetry, and drama).
Identify recurring themes, conflicts and characters in Chinese literary works.
AST 310. Japan Today (3).
Study of culture, social
structure, human relations, and issues and problems in contemporary Japan. Upon successful completion of this course, the student will be able to:
Identify the political, economic, cultural and religious structures of contemporary Japan. Identify the ways in which Japanese society has been influenced by, and maintained distance from, western cultural institutions.
Verbally and expositorally articulate an understanding of political, economic, cultural and religious structures of contemporary and their influences on the wider social milieu.
Develop analytical, reading and writing skills. Identify the changes in and evolution of the various cultural structures in contemporary Japanese society.
AST 340. Ethnography of China (Put on reserve $9 / 16 / 17$ ) (4). This course is designed to explore China from the perspectives of general cultural patterns and ethnicity. ANTH 340 and AST 340 are cross-listed courses; students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Tell what ethnic identifications are in China and to state the key ethnic and political problems concerning Tibet, Xinjiang and Inner Mongolia. Describe the steady, multiethnic formation of China throughout history by a complex process of cultural diffusion, population move, and violent action. Provide an underlying geopolitical explanation of the policy of the Chinese government towards the minority peoples in its frontier regions and towards its national security.

Procure concepts and tools for presenting the forms of interethnic relations through what happened and what is going on in multiethnic China. Specify how the Chinese 'autonomous' solutions to the ethnic minorities work and fail. Increase experience in reading and writing about ethnic groups and cultures.
AST 396. Individual Study (1-6).
AST 397. Honors (1-12).
Prerequisite: admission to department honors program.
AST 398. Special Topics (16).

AST 399. Seminar (1-5). May
be repeated if subject is different.
AST 401. Asia/Pacific Studies
Capstone (3). Senior research project of creative expression, to be completed in conjunction with elective course under the supervision of an Asia Pacific Studies teaching faculty member or someone designated by director.
AST 496. Individual Study (1-6). May be repeated if subject is different.
AST 497. Honors (1-12).
Prerequisite: admission to department honors program.
AST 498. Special Topics 1-6.
May be repeated if subject is different.
AST 499. Seminar (1-5). May
be repeated if subject is different.
ATM 251. Style Principles:
Body to Store (3). Theory and practice of merchandise presentation from store windows and displays to merchandising on the body. Application of principles and elements of design and concept development to execution for a variety of mediums. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Define and apply the principles and elements of design Identify components of visual displays

Identify advertising components of display Complete balanced aesthetically pleasing visual display
Define components of client styling
Identify sectors within styling industry
Analyze client body shape, size and fit
Identify the creative and
strategic nature of visual merchandising of the store and body
Identify individual style personality so clothing choices are successful
Execute photoshoot using components of styling Use terminology correctly
Practice and improve communication, writing, and presentation skills in relation to working with clients
ATM 270. Digital
Presentation Techniques (4).
Introduction to industry standard software used to visually communicate information. Basic skills acquired include the development of line plan components, presentation techniques, and concept boards.
Upon successful completion of this course, the student will be able to:
Develop knowledge and skills to be skilled users of computer technology used in the industry Develop computer skills to create effective story boards, line sheets, layouts, magazine spreads, brochures, and other product related information Use computer technology to create a variety of projects Identify the creative process and explore the capabilities of computer technology as related to clothing, fashion, and textiles
Discuss elements of professional portfolio Use industry technology to execute professional quality work
ATM 280. Basic Sewing
Techniques (3). Basic clothing construction theory,
techniques, and teaching methods covering basic garment components: collars, sleeves, bodices, pleats, etc. Formerly FCSA 280, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate mastery of sewing techniques as demonstrated in class Analyze and choose appropriate fabric selection for apparel and accessories Understand commercially available patterns and be able to recognize and explain markings on patterns Use sewing machine, sergers and various apparel design tools
ATM 281. Socio-cultural Aspects of Apparel (4). Clothing in relation to individual and group behavior patterns; personal and social meanings attributed to dress; and cultural patterns of technology, aesthetics, ritual, morality, and symbolism. Formerly FCSA 351 and ATM 351, students may not receive credit for both. Course will be offered every year (Fall, Winter, Summer). Upon successful completion of this course, the student will be able to:
Examine the means in which raiment within a cultural context serves to fulfill the physical, environment, social, psychological and personal needs.
Utilize the systems theory perspective in order to understand multiple cultural factors related to dress in society including identity, technology, social organization, aesthetics, gender, religion, ritual, and age.
Analyze and interpret unique experiences of raiment from a cultural perspective.
Research raiment in real-life situations in relationship to social and cultural behavior. Identify the structure of dress communication systems and
theories and the effect on human interaction.
Value the diversity of our appearance by linking the purposes raiment serves for individuals and societies. Apply critical thinking skills and inspire discussion relative to diverse perspectives, the body and raiment.
ATM 285. Buying and Merchandising Math (4). An introduction to the financial management of fashion products; mathematical applications using percentages, mark-ups, profit formulas, pricing principles, tracking inventory, and mathematical formulas used in all levels of apparel operations. Upon successful completion of this course, the student will be able to:
Define and dissect of the basic sales elements in the buying/selling process Calculate, analyze, and measure the performance of operating income Determine and calculate the costs of goods sold when purchasing merchandise Recognize and calculate the net cost
Identify activities that retailers
can use to maximize profits Understand price lining, pricing strategy, and pricing issues
Calculate markup as dollar amounts and percentages for individual items and groups of items
Establish retail prices
Identify the types of markups
and the use of each in making merchandise decisions Calculate initial markups, cumulative markups, and maintained markups, keeping markups balanced for various situations
Recognize and understand both the dollar amounts and percentages of markup needed to evaluate
Know and understand the retail method of inventory
Identify and describe information and procedures
necessary to implement the retail method of inventory Understand and recognize the elements of a six-month merchandise plan Recognize the importance of profit calculations in merchandising decisions Identify components of a profit and loss statement
ATM 289. Northwest Field Experience in Apparel and Textiles (3). An applied study of clothing, textiles, fashion merchandising, and design through regional field visits to meet with fashion professionals within a range of careers. Formerly FCSA 289, students may not receive credit for both. By permission.
Upon successful completion of this course, the student will be able to:
Identify potential professions in the Apparel Field Develop strengths and weaknesses of professional options
Determine professional training that requires individual academic preparation
Examine site locations
ATM 298. Special Topics (16).

ATM 299. Seminar (1-5).
May be repeated if subject is
different.
ATM 301. Introduction to the Fashion Industry (4). Overview of the history, structure, and operation of the fashion industry. Provides knowledge and skills for effective development in understanding the dynamics of the fashion industry. Course
will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Evaluate the fashion cycle and its components. Analyze the developmental steps of the fashion industry Identify apparel trends, styles and sizes.
Identify many sectors of the apparel industry.

Understand the roles and responsibilities of designers, manufacturers, and retailers. Analyze sustainability/social responsibility in the apparel industry.
Use fashion terminology appropriately.
Determine the scope of jobs in the fashion industry. Practice and improve communication, writing, and presentation skills to enable students to have a competitive advantage in the fashion industry.
Use industry technology to execute professional quality work.
ATM 353. Apparel Manufacturing (5). Analysis and evaluation of apparel through manufacturing; specification development, seam/stitch classifications, apparel assembly, equipment capabilities and production processes, costing, strategic sourcing, and quality assurance. Consideration of consumer product expectations, sustainability and intended end-use will be evaluated throughout the course. Formerly FCSA 353, students may not receive credit for both. Prerequisites: ATM 280, and ATM 301, and ATM 355 are required. Upon successful completion of this course, the student will be able to:
Describe quality assurance along the supply chain including raw materials and sewn products
Identify stitch and seam classifications
Analyze garment construction details and assembly processes Understand and complete garment and technical specification packages Identify production equipment capabilities and production processes (mass and cottage)
Evaluate costing variables throughout the apparel manufacturing process Understand sourcing process and identify production centers

Identify consumer product expectations
Understand and identify how sustainability is implemented throughout apparel manufacturing
ATM 355. Consumer Textiles
(4). Study of natural and synthetic textiles: generic classification, fiber-forming substances, morphology, fabrication, finishing and dyeing processes, properties, and performances. Ten dollar material fee. Formerly FCSA 355 , students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Analyze natural and manmade
fibers and their production, properties, use, and care Evaluate how yams and fabrics are produced
Identify the general concepts of textile processing, dyeing, and finishing
Define laws and labeling
requirements pertaining to textiles
Use textile terminology such as
fiber and fabric names
appropriately
Identify fabric structures, yarn types, dyes and finishes Identify the importance of developing a professional knowledge of textiles
ATM 379. ATM Internship
Planning (1). Preparation for required ATM internship; identifying professional goals, skills, opportunities and strategies, complete resumes, the application processes, preparing for interviews, analyzing the student internship, and introductory portfolio preparation. Formerly FCSA 379, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify career opportunities within the design, product development, manufacturing, merchandising, retailing, promotion, or scholarship sectors of the fashion industry

Define the requirements for internship programs in tems of academic needs and assignments, employer expectations and evaluations, time management and organizational skills, etc Complete a professional resume, letter of application, and portfolio-in progress Identify active listening skills and interviewing techniques to include appropriate dress; wellprepared questions and answers; internet, telephone and office protocol; etc Research and identify prospective internship employers
Complete necessary internship forms and identify internship learning objectives
ATM 381. Fashion Show
Production (2). Preparation, production, and evaluation of special fashion related events. Professional learning experiences will include modeling techniques, organization and directing procedures. Formerly FCSA 381, students may not receive credit for both. May be repeated up to 4 credits. Upon successful completion of this course, the student will be able to:
Outline skills and competencies needed in producing a fashion show Formulate strategies used for total involvement and audience attendance
Examine strategies for model selection, merchandise selection, staging and music, budgeting, show preparation, and/or execution Analysis of the fashion show concept and design process Show production, coordination, and how to make successful show
Organize successful event plans, producing assigned aspects of annual spring fashion show
Plan and execute effective and timely schedules and logistics for fashion show

Create accurate fashion show budget and execute show within the proposed budget Analyze completed show with evaluations of successes and areas for improvement Demonstrate team work and communication skills through the production of the fashion show
ATM 388. Advanced Fashion
Design (3). Fundamental concepts of flat pattern and draping design theories and techniques. Design and execution of draped and flat patterned samples and garment structures will be required. Includes translation of garment ideas from conception through production and merchandising.
May be repeated up to 6 credits. Prerequisite: ATM 280 or TH 261 and admission to the apparel, textiles and merchandising major or minor or the apparel design minor or permission of the instructor. Upon successful completion of this course, the student will be able to:
Apply the elements and principles of design in producing apparel
Identify construction terminology and techniques Write garment specifications, draft a pattern, develop prototype sample, and evaluate product
Identify design options for using pattern, fabric, and construction for differing body types
Identify the relationship
between designing and merchandising
Develop critical evaluation skills

## ATM 389. Fashion Trend

Analysis (3). Fashion forecasting; reflecting the acceptance or rejection of trends; analysis of socioeconomic, demographic, media, and fashion influences. Students will have an opportunity to travel to market. Formerly FCSA 389, students may not receive credit for both. Prerequisite: ATM 301.

Upon successful completion of this course, the student will be able to:
Assemble techniques and skills needed to research, report and analyze fashion trends Analyze the economic, cultural and social changes that influence fashion forecasting Summarize fashion and its influence on past, present and future lifestyles
Design a seasonal forecast Demonstrate and expand communication, writing, and presentation skills to enable students to have a competitive advantage in the fashion industry
Perform professional quality work using industry technology
ATM 396. Individual Study (1-6). May be repeated if subject is different.
ATM 397. Honors (1-12).
Prerequisite: admission to department honors program. ATM 398. Special Topics (16).

ATM 399. Seminar (1-5).
May be repeated if subject is different.
ATM 452. History of Fashion
(4). Historical changes in fashion and costume design from Egyptian period through Eastern civilization to present. Social, political, and religious influences on fashions. ATM 452 and TH 452 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Classify historic periods of costume by garment silhouettes, sleeve design, skirt shape, hat style, accessories and other specific details Distinguish recurring themes and concepts and understand the role of dress from a diverse, global perspective Analyze social, cross-cultural, environmental, geographic, and artistic influences on clothing through time
Recognize fashion legends and their influence as well as newcomers and
nonconformists-past and present
Employ terminology of historic clothing items
Further develop and
demonstrate communication,
writing, and presentation skills
to enable students to have a
competitive advantage in the apparel industry
Apply industry technology to execute professional quality work
ATM 485. International
Retailing (4). Emphasis on international retailing and global trade. Focus on crosscultural differences, work environments, policies, and regulations. ATM 485 and RMT 485 are cross-listed courses; students may not receive credit for both. Formerly FCSA 485, students may not receive credit for both. Prerequisite: RMT 330. Upon successful completion of this course, the student will be able to:
Distinguish key international retailing concepts, terminology, and decisionmaking areas.
Analyze and identify shifts and trends in demographics, information technology, monetary systems and Social/cultural values. Examine legal, political and ethical issues in international retailing.
Evaluate trade policy, the main instruments of trade policy, and their impact on retailers, consumers, and government. Analyze tactical planning in the global retail environment. Evaluate how global retail management decisions affect resources and sustainability. Describe the importance of organizational structures for global retailers and major entry strategies used by companies.

## ATM 487. Fashion

Merchandising Exit
Assessment (1). During the last quarter of their program, students are assessed on program outcomes and portfolios are created for internship and job interviews.

Formerly FCSA 487, students may not receive credit for both. Grade will either be S or U . Upon successful completion of this course, the student will be able to:
Construct a comprehensive portfolio that demonstrates and documents industry competencies Perform exit level oral communication competencies for the fashion industry Demonstrate senior level writing competencies for the apparel industry Create exit level visual display and trend presentation competencies for the fashion industry

## ATM 488. Fashion Line

Development (3). Production of an apparel line from conceptualization to completion. Design concepts will be executed through storyboards, identification of target market, merchandising strategy, and completion of muslin samples. A final project of three original designs will be showcased at the annual fashion show. May be repeated up to 6 credits. Prerequisite: ATM 388 or TH 361 and admissions to the apparel, textiles and merchandising major or minor or the apparel design minor or permission of the instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate the required skill level for a chosen project including fabric selection, pattern, selection, fit and construction techniques Demonstrate research skills by investigating market trends in color, fabric, styling, and sources of inspiration Utilize the elements and principles of color and design to create a unified and harmonious apparel line for a target customer
Create and present a storyboard for apparel line
Create completed spec pack for apparel line

ATM 489. Merchandise Buying and Planning (4). Principles of buying and selling merchandise; analysis of consumer demand, stock inventories and open-to-buy. Formerly FCSA 489, students may not receive credit for both. Prerequisite: ATM 285 and RMT 330.
Upon successful completion of this course, the student will be able to:
Analyze merchandising
management and the duties of
a merchandising manager and
buyer
Outline merchandising
fundamentals and
merchandising strategies
Summarize the basic stock
method and model stock for fashion merchandise and staple merchandise
Outline the necessity for inventory control and inventory control methods Differentiate techniques to plan sales and generate sales forecasts
Recognize the importance and deduce the elements of open-to-buy
Assess elements in a six-month merchandise plan and generate a six-month merchandise plan
Examine the merchandise assortment concept and identify factors affecting assortment planning decisions
Compare and contrast the factors of locating and choosing resources/vendors in domestic and foreign markets Illustrate terms to be negotiated when placing an order and negotiating techniques
Summarize techniques used in placing an order and following up
Compare and contrast the difference between retail-based and cost-based pricing
Analyze and calculate markups, markup percent, retail dollars, cost dollars, mark downs, and discounts with variable factors
ATM 490. Cooperative
Education (1-12). An
individualized, contracted field
experience within the apparel
industry. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. 40 hours required per credit. May be repeated up to 20 credits. Prerequisite: ATM 379.
ATM 491. Workshop (1-6). Formerly FCSA 491, students may not receive credit for both. May be repeated for credit.
ATM 492. Apparel, Textiles and Merchandising Practicum (1-10). Supervised practicum experience for apparel, textiles and merchandising majors. May be repeated up to 15 credits. Course will be offered every year (Spring and Summer). Prerequisite: ATM 379. Upon successful completion of this course, the student will be able to:
Design an individual learning experience in apparel, textiles, and merchandising.
Report on progress toward completion of individual learner outcomes
Evaluate his or her own performance in the individualized learning experience Connect activities in his or her individual learning experience to his or her learner outcomes and demonstrate completion of those outcomes.
ATM 496. Individual Study
(1-6). May be repeated if subject is different.
ATM 497. Honors (1-12).
Prerequisite: admission to department honors program. ATM 498. Special Topics (16).

ATM 499. Seminar (1-5). AVM 296. Individual Study (1-6). By permission. May be repeated for credit.
AVM 298. Special Topics (1-
6). May be repeated for credit.

AVM 299. Seminar (1-5).
May be repeated if subject is different.
AVM 330. Aviation Law (3).
This course provides an introduction to aviation law, the legal system, and the principles of law and how they
may be applied to aspects of air transportation. Students must be junior standing or above to enroll in this class.
Upon successful completion of this course, the student will be able to:
Identify legal rights when interacting with an FAA inspector.
Explain appropriate actions to various aeromedical dilemmas Identify behaviors that generate potential tort liability. Describe the fundamentals of organizing and managing a business in order to avoid the most common legal pitfalls, and list the basic insurance needs for typical general aviation businesses
Describe the use of exculpatory contracts as a risk-management tools.
Identify legal responsibilities of airlines.
Differentiate aviation accidents from aviation incidents and describe required reports. Identify torts or acts of negligence committed be Federal employees that are covered by the Federal Tort Claims Act and government liability in the aviation system. Explain the decision-making process used for buying, selling and leasing aircraft. Identify the role of airports, pilots, and aviation employees in providing airport security. Describe how airports' needs and property owners' needs often clash, the legal protection afforded to each, and steps that airports can take to help protect them from closure.
Describe procedures for unionizing employees, negotiation contracts, and the process of taking disciplinary action against persons employed by the airlines.
AVM 332. Aviation
Legislation (4). History and evolution of aviation governmental regulatory agencies in the US and internationally, including FAA, ICAO, and homeland security. Agency organization and operation, and legislative acts
and treaties related to
enforcement of aviation
standards. Prerequisite: AVM 330.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the government's role in air transportation and early history including:
History of the National
Advisory Committee for
Aeronautics
The impact of the outbreak of
World War I and the need for air power
Funding of an innovative postal program which was to serve as the first model for commercial air operations
The Army's role in the Airmail
Act of 1925
Compare the following
including:
Government involvement assists the aviation industry growth through appointment of federal safety regulations.
The Air Commerce Act of
1926 and the Aeronautic
Branch of the government
The role of the Department of
Commerce in aeronautic
legislation
Bureau of Air Commerce and the Air Traffic Control Centers
Civil Aeronautics Act and the
Civil Aeronautics Authority
List and identify the
development of legislation post
World War II and identify
issues in responsibility
including:
The impact of World War II on aviation legislation
International Civil Aviation
Organization sets the
framework for future aviation
diplomacy
Federal government funds
airport programs to promote
airports
NASA
The National Transportation
Safety Board and the United
States Department of
Transportation's role in the
furtherance of aviation
legislation
Passage of the Federal
Aviation Act of 1958

The role of the Federal Aviation Agency
Airline Deregulation Act of 1978 and the elimination of the Civil Aeronautics Board Compare and contrast the issues and problems with the aviation legislation post 9/11/2001 including: The Transportation Security Act
Tile formation of the
Transportation Security
Administration
Government's role in passing
legislation to deter hijacking and terrorism
AVM 333. Air
Transportation (4). The air transportation system including facilities, regulations, and problems encountered in commercial transportation, airline operations, economic, ethical, and social considerations.
Prerequisite: English 101 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Describe the political, economic, and social changes brought about by the advent and evolution of air transportation. Identify the Federal Legislation which created and governs the air transportation industry. Detail the effects (pros and cons) of the Airline Deregulation Act of 1978 on the industry, its employees, and its customers.
Describe the general functions and tasks of the DOT.
Become familiar with the general functions and tasks of the FAA and NTSB.
Become familiar with post -
deregulation air carrier regulations and requirements Describe the different types of airlines, the certification necessary for those types, and the agreements entered into by carriers.
Describe airline hierarchy.
Discuss the laws pertaining to
International Air
Transportation.

Describe the functions and duties of the various International Air Transportation Organizations. Discuss current and future trends in commercial space transportation Describe the typical management and organizational structure of air carriers.
Demonstrate an understanding of Air Carrier Marketing strategies and the complexities involved in determining ticket prices, forecasting demand, and scheduling crew and equipment.
Demonstrate a basic understanding of the accounting and financial analysis practices used by the Air Transportation industry. Demonstrate a basic understanding of the accounting and financial analysis practices used by the Air Transportation industry. Demonstrate an understanding of industry forecasts and fleet planning.
Demonstrate an understanding of the processes used by the airlines to determine fleet size and type.
Determine advantages and disadvantages of various commercial class aircraft.
Define general aviation.

## AVM 334. Airport

Management (3). Airport operations and management, including analysis of the role of the airport manager in planning, finance, and administration; public relations, social, political, and environmental considerations; operational requirements and facilities maintenance.
Upon successful completion of this course, the student will be able to:
Identify, compare and evaluate various airport types, functions and roles.
Explain the organizational structures and management functions at airports. Identify and summarize the most significant Federal Aviation Regulations. (FARs)
and other guidance related to airport operation or development.
Understand the management of airport operations, including airside facilities, landside facilities, airport maintenance, security and emergency activities
Explain the financial management process involved in airport management and capital improvement programming, including administration of airport improvement grants. Understand the use of planning tools available to the airport manager, including master plans, airport layout plans, aviation system plans, environmental assessments, business plans, land use and noise compatibility planning. Understand environmental and land use issues faced by airports, including federal, state and local regulation. Recognize the role of public input into airport management decision making and policy development.
Discuss the various elements of an airport's legal liability and responsibilities.
AVM 335. Aviation
Management (3).
Management of aviation activities, manpower, facilities, regulations, and flight operations.
Upon successful completion of this course, the student will be able to:
Describe and discuss the nature of aviation business organizations, including management structures and decision- making hierarchy. Identify and describe the profit function and the basics of accounting systems utilized by aviation business organizations, including balance sheets and profit and loss statements.
Identify and describe cost systems involved in aviation business organizations including fixed costs and variable costs.

Explain compare and contrast manpower management issues. Explain compare and contrast aviation related asset-financing techniques.
Identify and explain the legal environment of aviation business organizations including civil and regulatory issues.
Identify and explain the labor relations environment of aviation related business organizations.
Describe, discuss and demonstrate competence in airline load factor, seat-mile cost, block time evaluation and average ticket pricing.

## AVM 338. Airport

Administration and Finance
(4). The role of airport and airline in the aviation industry, including time value of money, risk and return, complex nature of costs (fixed, semi-fixed, variable and marginal). Analysis of financial statements as they apply to the overall financial health and revenue stream of an aviation organization such as an airport or airline. Prerequisite: AVM 334.

Upon successful completion of this course, the student will be able to:
Demonstrate the ability to recognize and identify: The basic theory and foundations of Airport and Airline Finance including methodology and practice. Identify the following including:
The elementary and theoretical foundations that underpin the role of finance in the airline industry such as the time value of money, the notion of risk and return, and the complex nature of costs (fixed, semifixed, variable, and marginal). Compare and contrast issues in ratio analysis including: An in-depth analysis of the role of accounting in airlines which includes the study of ratio analysis is used to further analyze airline financial statements

Analyze more advanced issues in finance as it applies to the aviation industry and aircraft including:
Compare and contrast practical applications of the theoretical ideas presented earlier; these applications include hedging, the buy versus lease decision for aircraft and the question of the valuation of assets (mainly aircraft).
Compare and contrast finance in terms of measurable criteria including:
Calculate airline industry specific metrics, such as cost per available seat mile (CASM) and revenue per revenue passenger mile
(RRPM).
Evaluate and analyze the role of capital and asset management including: Real world application of the financial theories learned as they apply to a case study of an airline company.
AVM 350. Aviation Career Planning and
Professionalism (3). Career planning as applicable to students pursuing careers in the air transportation industry. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Give an integrated view of the aviation job search process.
Summarize the tasks necessary to secure employment in the aviation industry. Present the various career options available in the air transportation industry, including the role worker seniority plays. Summarize the job search process and demonstrate the practical needed experience using skills for a selected aviation career path. Students will demonstrate the role professionalism, motivation, and ethics play in an employment environment in the air transportation industry. Students will demonstrate working knowledge of the role worker union's play with
companies in the aviation industry.
Develop specific job objectives
and write an application letter for a specific aviation job. Prepare job search correspondence to include a resume, which highlights skills and individual strengths for a selected aviation career path. Practice interview skills for selected aviation career paths. Write a thank you letter for an interview.
Identify aviation specific resources available to obtain career information in the aviation industry. Develop oral and written communication skills.
Demonstrate the values and positive attitudes necessary for a successful career in the air transportation industry. Develop a sense of aviation professionalism, ethical standards from integrity, versatility, openness to change, curiosity, imagination, and creativity necessary to demonstrate to a potential employer the character traits of motivation, passion, and dedication.
Students will demonstrate working knowledge of a variety of selected aviation career paths
AVM 396. Individual Study
(1-6). May be repeated if subject is different.
AVM 397. Honors (1-12).
Prerequisite: admission to department honors program.
AVM 398. Special Topics (1-
6). May be repeated if subject is different.
AVM 399. Seminar (1-5).
May be repeated if subject is different.
AVM 417. Aviation Safety
Management (4).
Fundamentals of aviation safety program management.
Prerequisites: AVP 340 or enrolled in aviation management major/minor and junior or senior standing. Upon successful completion of this course, the student will be able to:

Distinguish between the general safety record of scheduled airlines, commuter, air taxi, and general aviation (GA), and between the geographic regions of North \& South America, Europe, Middle East, Asia and Africa. Identify the top three categories and top three causes of worldwide commercial jet fatal accidents.
Identify and explain (or define) key safety terms and concepts such as: occurrence (incident \& accident), hazard, "but for" test, proximate/root cause, blood priority, costbenefit, risk, known precedent, safety net, mulifactorial etiology, lethality index, substitution test, active failures, latent conditions, defenses-in-depth, event cascade, Heinrich's principle and just culture.
Identify and summarize historic aircraft accidents that played a significant role in the development of aviation safety, including, but not limited to, the following aircraft accidents: TWA DC-2, 1935; BOAC de Havilland Comet, 1950s; UAL DC7/TWA L-1049, 1956; EAL L1011, 1972; PSA 727/C-172, 1978; JAL B-747, 1985; DC-9/PA-28, 1986; AAL B757, 1995.

List and explain the insured and uninsured costs of an aircraft accident.
List and explain at least three major reasons for an aviation safety program.
Spell out over 65 common aviation safety-related acronyms and abbreviations used in this course.
List and explain the various methodologies and programs used to identify and control hazards in an aviation organization, including: surveys, safety audits, flight operations quality assurance (FOQA) programs, the aviation safety action program (ASAP), line operations safety audits (LOSA), threat \& error management strategies (TEM),
and, safety management systems (SMS).
Explain the significance of the various models of accident causation and describe the major features of each, including:
social pathology \& accident proneness, domino/causal chain, and ecological and systems models (pilot-aircraftenvironment, SHELL, 5M's, Reason's Swiss cheese model). Explain the major goals of an aviation safety program, including:
accident prevention and preparation, implementing safety standards, controlling hazards and safety education and promotion.
Explain and provide examples of how the "Safety Net" concept applies in an aviation setting, including: auditory \& visual warning systems,
TCAS!ACAS,
EGPWSITAWS,
EMAS\&BRS.
List and explain the major technological advances used to enhance aviation safety including a description of: TAWS/EGPWS, LLWAS, TDWR, ACASITCAS, ASDEX, ADS- B, EMAS, and FDR/CVR.
Describe the role of specific organizations and programs designed to enhance aviation safety including the role of: the FAA, the NTSB, NASA's ASRS program and the FAA'sIASA program. Describe the nature of the following hazards to flight and list best practices to mitigate them: maintenance errors, HAZMAT, wildlife strikes, FOD \& terrorism.
AVM 418. Threat and Error Management in Aviation (3).
Principles of Threat and Error Management (TEM) in aviation operations. Course will be offered every year (Winter, Spring). Co-requisite or Prerequisite: AVP 304. Prerequisite: AVP 340. Upon successful completion of this course, the student will be able to:

Define the major terms used in
the Threat \& Error
Management (TEM)
framework and recall examples of each from a major aircraft accident ( or accidents) discussed in class; to include: threat, error, violation, undesired aircraft state (UAS) and countermeasure. Summarize and explain the nature of the following major threats general aviation pilots and airline flight crew members face: aircraft malfunctions ( engine failure, engine/cabin fire), adverse weather (aircraft icing, LLWS, turbulence, VFR-into-IMC), loss of aircraft control (spatial disorientation, high altitude flight), and collisions (RE, R1, MAC, CFIT).
Distinguish between the six different approaches to explaining human error and describe the major components of James Reason's model of accident causation.
Identify the major defensive countermeasures designed to assist in identifying, avoiding and mitigating threats, errors and undesired aircraft states to include: SOP adherence; flows \& checklist discipline, callouts, \& workload management; distraction management \& sterile cockpit compliance; monitoring \& automation management; crew briefings; stabilized approaches. Identify and describe "best practice" countermeasures to reduce the effects of the following threats: aircraft malfunctions ( engine failure, engine/cabin fire), adverse weather (aircraft icing, LLWS, turbulence, VFR-into-IMC), loss of aircraft control ( spatial disorientation, high altitude flight), and collisions (RE, R1, MAC, CFIT).
AVM 420. Aviation Labor
Relations (4). Overview of aviation industries and development of US labor law and policy, including statutory, regulatory, and case laws in airline and corporate aviation. Principles, practices and
procedures in collective bargaining and dispute resolution; and the changing airline labor relations environment. Prerequisite: AVM 330.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the history of aviation between 1900 and 1930s:
The Railway Labor Act of 1926
The role and scope of the economics in with the onset of aviation.
Aviation and the role of pilots during these early years
The role of the post office and private contractors with respect to the development of safety standards for pilots and passengers
The creation of the ALPA
Demonstrate an understanding of the history of direct government regulation of the airline industry 7 between 1938 and 1978
Civil Aeronautics Act of 1938
The problems and issues with government regulation.
Labor relations in the early
years
Government policy and concerns regarding the airline industry
Compare and contrast the paradigm shift that after government deregulation
Airline Deregulation Act of 1978
Dilemmas which included bankruptcy of major airlines ALPA and the Braniff financial downfall
Delta business model
The post deregulation
corporate and the fall of
traditional labor/relations List the reasons and outcomes relating to the Continental Strike
The ALPA during the Reagan
Administration
ALPA and The Lorenzo Wars-
The Bildisco Decision
Compare the various labor relations involving labor strikes
The United strike of 1985

Government and anti-labor movement
The Election of 1986 and
Political mergers
The Eastern Airlines strike
Analyze the various modern issues in labor relations Modern day labor disputes and lawsuits.
International disputes and resolution
Airline safety issues as they relate to labor disputes Negative impacts to pilots and their careers
AVM 422. Legal Ethics in
Aviation (4). Aviation ethical issues relative to the deregulation act of 1978 . Government and industry roles in aviation employee responsibility, diversity, airport ground issues, air traffic control and security, health and the environment, and crew/passenger safety. Prerequisite: AVM 330. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to recognize and analyze, with respect to ethical theories: Dilemmas and decisions that may arise in aviation Capitalism and assessing the merits and limitations of the industry
Theories in choice making such as: consequentialism, deontology or duty based
Decision Making
Seven Step Reasoning Process
Identify the following
including:
Governance of the
international aviation
Pricing and challenges facing
airline managers and
consumers
Outsourcing under systems
integration: long run benefits for Boeing and other aircraft producers
Outsourcing maintenance: A
union perspective
Compare issues in responsibility including:
Whistleblowing in Aviation
Ethic and FAA inspectors
Danger of capture in the FAA

Competing wisely-unity of pilots
Ethics from the perspective of
a flight attendant
ValuJet 592 and corporate
responsibility
Analyze issues involving
diversity as it applies to
aviation including:
Racial discrimination against pilots
Gender and racial barriers in
flight training
Diversity recruiting in aviation
maintenance
Safety, economic favoritism
Age discrimination and the
FAA age 60 rule
Compare and contrast common problems in airports, ATC and security, such as:
Conflicts with the location and operation of airports
Case study of the Chicago
O'Hare
Politics of airport expansion
Air traffic control
TSA and risk management
Identify the ethical issues associated with the health and environment as it pertains to the aviation industry including:
Ethical issues in aviation medicine
Environmental concerns in general aviation: Avgas and Noise Pollution
Greenhouse gas emissions, persistent contrails and commercial aviation Ground-level pollution, invasive species and emergent diseases
AVM 424. Aviation Security
(4). Airport security systems, protection criteria, crime prevention, perimeter security, and access control. Policies and procedures forming security infrastructure required by Department of Homeland Security and the TSA to maintain a secure air transportation system. Prerequisite: AVM 333. Upon successful completion of this course, the student will be able to:
Students will be able to
identify and summarize the
historic terrorist incidents
discussed in class that played a
significant role in the development of security programs as they relate to the various modes of transportation to include, but not limited to: September 11, 2001 (World Trade Center); April 18, 2983 (Beirut,
Lebanon); December 21, 1988
(Lockerbie, Scotland);
February 26, 1983 (World
Trade Center); April 19, 1995
(Oklahoma City); March 11,
2004 (Madrid, Spain)
Students will be able to
identify various terrorist groups and how they played a role in history
Students will be able to summarize the strengths and weaknesses of the various modes of transportation (air, rail, waterways, road, pipeline) as they relate to terrorist activity
Students will describe the history of the formulation of the Department of Homeland Security and how it relates to present day policy and procedure
Students will be able to discuss the history of the formulation of the Transportation Security Administration and its current applications
Students will be able to summarize the security requirements for the different modes of travel described by International Civil Aviation Organizations (ICAO) Security Requirements, Transportation Security Administration (TSA), Department of Homeland Security (DHS), United States Coast Guard

## AVM 426. International

 Aviation Management (4). International aviation management and policy, including cross-cultural challenges, interpersonal relationships in a diverse domestic and foreign environment, and evolving global trends. Managing workforce diversity from a culture-based perspective, including social responsibility, ethics, and environmentalinterdependence. Prerequisite: AVM 335.
Upon successful completion of the course, the student will be able to:
Assess the challenges of aviation related international business as influenced by globalization, regional trade blocks, international organizations, privatization, Information technology, and workforce diversity. Evaluate the impact of political, economic, technological, financial and legal environments to which aviation related international business' are exposed. Evaluate the role of culture as it pertains to aviation related international business. Interpret international aviation policies as they apply to global business and organizations. Demonstrate negotiation and decision-making principles as they apply to aviation related businesses operating in an international environment. Determine the influence of international aviation policies on organizational design. Assess various ways and methods of motivating and managing multicultural workforces.
Evaluate the impact of international aviation policies on regional air transportation. Analyze global market import and export procedures as they are influenced by international aviation policies.

## AVM 430. Airport/Airline

Marketing (4). Basic
economics and marketing principles of airports, airlines, and aviation business within air transport value chain. New principles including inclusive advertising, marketing to the connected traveler online, offline advertising, and social media. Prerequisite: AVM 335. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the airport enterprise including:

The role and scope of activities in airport marketing strategies The air transport value chain The airports technical core business
Identify the new marketing strategies that modern airports are implementing which includes:
Why the traditional airport is unable $\backslash O$ compete
New business designs that better fir shifting priorities of both current and new end customers
The shift to diversification of 'non-aviation' related activities The marketing driven paradigms for airport enterprises aviation- related business
Compare and contrast the paradigm shift that modern airports must make to stay within a competitive market and includes the following: Basic economics of the airport business with the air transport value chain
Two main strategic business units (SB Us) and (SBC s) of modem airport enterprises the aviation and non-aviation related ones such as Airport Loyalty programs
Achieving sustainable growth for the commercial airport List security issues post $9 / 11$ as they relate to the financial health of the airport including: International ruling bodies who are now putting into practice security measures meant to reduce terrorist threats The September 11, 2001 attacks and how they changed the traditional marketing strategies
How to construct an airport marketing plan Compare the historical marketing trends of airline marketing including: How airlines are engaging the modern consumer as opposed to the traditional years ago New principals including: inclusive advertising, marketing to the connected traveler online and offline advertising ie social media

Crowd-sourcing and location
based campaigns
Analyze the various modern marketing techniques including:
Viral videos around brand name recognition Social loyalty and gamification The use of meme jacking and deep association with the internet culture
The focus is now on real people instead of super models and actors
More personalization of airline staff
Compare and contrast certain methods of new and modern marketing as well as the consumer:
Flash mobs and the viewing potential of millions of people world wide
Onboard events such as themed
flights ie, Angry Birds or Mile-
High Fashion Show
Surprise gifts
No more clutter advertising
WI-FI availability
The Southwest Airline
marketing model
Other airlines marketing models
AVM 434. Airport
Operations (3). Prerequisites: AVM 333 and AVM 334. Upon successful completion of this course, the student will be able to:
Identify, compare and evaluate various airport operational components.
Explain the organizational structures and management functions at airports. Describe the relationships between airport, airline and users.
Identify and summarize the most significant Federal Aviation Regulations (FARs) and other guidance related to airport operation or development. Understand the management of airport operations, including airside facilities, landside facilities, airport maintenance, security and emergency activities.
Describe environmental and land use issues faced by
airports, including federal, state and local regulation Recognize the role of public input into airport management decision making and policy development.
AVM 438. Airport Planning and Design (4).
Methodologies necessary to the planning and design of airports. Prerequisite: AVM 434.

Upon successful completion of this course, the student will be able to:
Describe basic design considerations used in airfield pavement, drainage, and associated facilities. Apply methodologies used in various types of aviation planning including: aviation system plans, airport master plans, environmental studies and land use plans. Demonstrate an understanding of the role and significance of land use planning as related to airport planning and operations.
Apply primary components of airport master plans including inventory, forecasting, facility requirements, demandcapacity, development alternatives analyses, capital improvement programming, and development of airport layout plans (ALP) to real world scenarios Describe the role and significance of federal environmental planning requirements (NEPA) as related airport planning and development.
Identify, compare and evaluate various airport facility components and the principles of airport geometry. Apply FAA design standards commonly used in airport planning. Apply FAR Part 77 - Objects Affecting Navigable Airspace for airspace planning and evaluate aircraft performance requirements in relation to airport planning.
AVM 490. Cooperative
Education (1-12). An individualized, contracted field
experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated up to 20 credits. Grade will either be S or U .
AVM 496. Individual Study (1-6). By permission. May be repeated for credit.
AVM 497. Honors (1-12). Prerequisite: admission to department honors program.
AVM 498. Special Topic (1-
6). May be repeated for credit. AVM 499. Seminar (1-5).
May be repeated for credit.
AVP 101. Private Pilot Flight Laboratory I (2). Basic flight maneuvers, solo flight in local area, and introduction of maximum performance takeoff and landing procedures. Course will be offered every year (Fall, Winter, Spring, Summer). Co-requisite: AVP 141.

Upon successful completion of this course, the student will be able to:
Safely start, taxi, take-off, land, and shut-down the aircraft. Recognize hazardous flight attitudes and safely recover Analyze systems failures and choose appropriate course of action to correct or mitigate Demonstrate satisfactory aeronautical knowledge required to conduct safe solo flights within the traffic pattern
AVP 102. Private Pilot Flight
Laboratory II (2). Plan and conduct cross-country flights and perform short-field and soft-field takeoffs and landings. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Take off and land the training airplane on short and soft fields Recognize hazards involved in operating at night and safely plan night flight operations

Using all available resources, plan and execute cross country flights in the National Airspace System
Plan and execute a diversion to an alternate airport while maintain control of the aircraft in flight
Operate the aircraft by reference to the instruments without outside visual cues
AVP 103. Private Pilot Flight Laboratory III (2). Perform private pilot operation at a standard to obtain the private pilot certificate. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Using all available resources, plan and execute cross country flights in the National Airspace System
Demonstrate the knowledge, skill, and aeronautical experience necessary to meet the requirements for a private pilot certificate with an airplane category rating and a single-engine land class rating AVP 104. Intermediate Pilot Flight Laboratory (1). Flight operations for recurrent and standardization training for professional pilot degree. May be repeated up to 3 credits. Grade will either be S or U . Upon successful completion of this course, the student will be able to:
This lower division flight lab allows student to apply for financial aid to either finish flight training for a required course of training in the major or pursue recurrent or standardization training. Whatever the type of training, the student must demonstrate flight proficiency in accordance with FAA requirements.
AVP 131. Introduction to Aviation (1). Introduction to basic concepts in aviation and career opportunities within the field of aviation. Course consists of guest speakers from across the aviation industry. Open to both aviation and non-
aviation majors and non-degree seeking students. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Describe the basic concepts of aviation.
Identify career opportunities available to aviation students
Outlines a wide variety of aviation related careers that are presented through Guest lectures delivered by aviation experts.
Summarize aviation professionalism as it pertains to their field of choice
AVP 141. Principles of Flight
I (4). Basic knowledge of airplanes and systems, aerodynamics, flight safety, airports, aeronautical charts, airspace, radio
communications, air traffic control services, and aviation regulations. Minimum Brequired to continue flight training and to earn graduation certificate. Course will be offered every year (Fall). Corequisite: AVP 221.
Upon successful completion of this course, the student will be able to:
Describe how aerodynamic principles affect basic flight performance of a typical light airplane.
Identify and describe the operation of the major components and systems of a typical light training airplane. Recognize and recall the various U.S. Federal aviation regulations applicable to Private Pilot flight operations. Correctly describe basic VFR weather minimums.
Identify procedures and recognize general airport layout, signs, markings, and visual aids, and interpret basic airport symbols on aeronautical chart excerpts.
Recognize the effects of the human physiological and decision-making limitations on flight safety and identify the strategies needed to counter them in flight.

Identify the correct radio communication procedures and ATC services for VFR airspace in the U.S. National Airspace System.
Describe the basic meteorological processes and weather hazards applicable to the flight environment.
AVP 142. Principles of Flight
II (4). Basic knowledge of airplane performance and loading, preflight planning including weather analysis, visual and radio (VOR/ADF) navigation, flight physiology, and aeronautical decision making. Preflight planning for cross-country flights. A grade of B- is required for an FAA graduation certificate.
Prerequisite: AVP 141. Corequisite: AVP 211.
Upon successful completion of this course, the student will be able to:
Determine various airplane performance parameters and loading values using charts, graphs, and tables provided by the manufacturer in the Pilot Operating Handbook of a typical light training airplane. With the aid of a checklist, plan a typical VFR crosscountry flight, which includes the analysis of aviation weather reports and forecasts provided in graphical and alphanumeric formats, and accurately complete a VFR Navigation Log and Flight Plan form. Describe the principles of pilotage, dead reckoning, and basic radio navigation (including VOR \& ADF). Discuss the basic physiological limitations applicable to private pilot flight operations and identify the appropriate actions to reduce or eliminate their effects.
Discuss and describe aeronautical decision making.
AVP 201. Instrument Pilot
Flight Laboratory I (2).
Altitude control by instrument reference only, use of full and partial panel, and radio navigation. Student must show proof of possession of a Private Pilot Airplane, Single Engine

Land certificate in order to be enrolled. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: AVP 103 or department approval. Upon successful completion of this course, the student will be able to:
Demonstrate proper instrument
flight preflight procedures Demonstrate proficiency in basic full panel attitude instrument flying
Demonstrate recoveries from unusual attitudes utilizing full and partial panel Correctly compute time for standard rate turns to a heading; and approximate compass heading to compensate for dip error Demonstrate power off and power on stalls and recoveries utilizing partial panel Demonstrate VOR and ADF orientation and tracking Compute time, speed, and distance from station
AVP 202. Instrument Pilot Flight Laboratory II (2). IFR approaches and holding patterns. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Determine proper holding entry and holding techniques for VOR and NDB holding patterns
Interpret position on DME arcs and maintain DME arc to predetermined course intercept Perform a VOR, an NDB, and an ILS approach Perform circling, straight in, and missed approach procedures
Perform a partial panel nonprecision instrument approach procedure
Perform a stage check with stage check pilot.
AVP 203. Instrument Pilot Flight Laboratory III (2).
Perform all IFR maneuvers and procedures to FAA instrument rating practical test standards. Course will be offered every
year (Fall, Winter, Spring, Summer)
Upon successful completion of this course, the student will be able to:
Demonstrate proper preflight planning for an IFR cross country flight, utilizing instrument departure procedures
Perform a VOR, an NDB, and an ILS approach Perform circling, straight in, and missed approach procedures
Respond to simulated radio, instrument, equipment, engine, and systems failures with appropriate emergency response Demonstrate appropriate aeronautical decision making and judgment appropriate for an instrument pilot

## AVP 211. Meteorology for

Pilots (4). Meteorological processes and weather hazards
applicable to the flight environment.
Upon successful completion of this course, the student will be able to:
Calculate upper level temperatures using known lapse rates and surface temperatures, and convert temperatures between Celsius and Fahrenheit using the rough approximation conversion formula.
Identify the characteristics of the "standard atmosphere" including lapse rate, temperature, pressure, and tropopause height; calculate the temperature at any altitude in the standard atmosphere. Recognize the effects of the seasons on the temperature distribution in the atmosphere and identify four major ways energy is transferred in the atmosphere.
Differentiate between the different types of pressure systems, interpret wind speed symbology for a given station plot and predict general wind flow speed and direction by interpreting isobar spacing around highs and lows as
indicated on a surface weather chart.
Calculate the amount and direction of indicated altitude error for any given incorrect altimeter setting, recognize the effects of nonstandard temperature on altimeter indications, and identify the factors that affect density altitude.
Explain what causes wind and identify factors that affect its speed and direction. Distinguish between the characteristics - both speed and direction - of surface winds and geostrophic winds above the friction layer. Determine approximate heading corrections needed to maintain a given track when flying to and from a high or low pressure system and when flying through a frontal zone. Identify the factors that determine the stability of the atmosphere and differentiate between the characteristics of stable and unstable air, to include turbulence, visibility, type of cloud and precipitation. Compare temperature/dew point scenarios to determine water vapor content, capacity and relative humidity.
Recognize the characteristics of the different kinds of fog and the characteristics of low, middle and high strato- and cumulo-type clouds, and use a formula to determine the approximate the base of convective clouds using surface temperature/dew point values.
Recognize the difference between obscurations and layers aloft in METAR observations and list the abbreviations used for the various cloud and precipitation types.
Identify the difference between runway visual range (RVR) and tower, prevailing and runway visibility. Contrast the weather phenomena that occur when a 'typical' cold front or 'typical' warm front passes a location, to include speed, frontal slope
steepness, temperature, stability, pressure and wind change, visibility and cloud type; and recognize the signs of approaching freezing precipitation associated with a frontal system.
Name the various causes of thunderstorms and identify the characteristics of the three stages of their development. Recall the different types of thermally-driven winds and recognize the signs of mountain lee waves.
Define low level wind shear (LLWS), identify the characteristics of the different sources of LLWS, and recognize the effects of decreasing and increasing performance shears on aircraft performance.
Identify the various sources of in-flight turbulence, including thermal, mechanical, frontal, thunderstorm, mountain wave, jet stream and clear air turbulence (CAT); distinguish between the different FAAturbulence intensity definitions.
Name the different types of airframe icing and recognize its effects on aircraft performance. Using materials presented in class, identify hazardous weather conditions and determine methods to avoid them.
AVP 221. Aircraft Systems I

- Reciprocating (4). Light training aircraft engines, propellers and engine systems, flight controls, fuel systems, instrumentation, tires, wheels and brakes. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: AVP 141.
Upon successful completion of this course, the student will be able to:
Develop primary principles of mathematics useful in evaluating physical properties of systems.
Develop primary principles of physics applicable to study of aircraft systems.

Demonstrate a working knowledge of aircraft engine types and construction Discuss, analyze, and synthesize reciprocating engine theory of operation. Discuss, analyze, and synthesize basic engine lubrication and cooling concepts and systems Demonstrate a working knowledge of aircraft propellers and governors, including operation and maintenance
Discuss and analyze principles of electricity, magnetism, electrical and magnetic fields, and electronics. Discuss and analyze aircraft electrical system components Demonstrate a working knowledge of aircraft electrical systems, including operation and troubleshooting Demonstrate working knowledge of aircraft fuel systems, including operations and troubleshooting. Discuss and analyze aircraft flight control systems. Discuss and analyze aircraft instrumentation. Synthesize knowledge and understanding of basic systems for the aircraft used for training.

## AVP 237. Outdoor Survival

for Pilots (1). Basic
introduction to outdoor wilderness survival for flight crew. Course will be offered every year (Fall, Summer). Prerequisite: AVP 142. Upon successful completion of this course, the student will be able to:
Explain the basic principles of aircraft crashworthiness, including the factors in the acronym CREEP.
Describe the aircraft and terrain variables that influence the conduct of an unscheduled forced landing.
Identify and/or explain the fundamental principles of outdoor wilderness survival and facilitating rescue, including: post-crash survival factors, physiological and first aid priorities, shelter from
environment, food and water procurement and facilitating rescue (SAR).
AVP 241. Instrument Flight I
(4). Aircraft instruments, basic attitude instrument flying, navigation, regulations, procedures, and ADM for the instrument pilot. Private Pilot
ASEL required to enroll.
Department permission.
Minimum B- required to continue flight training and to earn graduation certificate. Course will be offered every year (Fall and Summer). Upon successful completion of this course, the student will be able to:
Describe Human Factors associated with instrument
flight, recognize hazards associated with instrument flight, and apply appropriate SRM, ADM, and risk management
Describe aircraft flight instruments and their systems and identify systems failures Analyze and interpret instrument presentations to indicate flight attitude and condition
Interpret navigation instrument readings to determine aircraft position.
Describe the National Airspace
system and determine
instrument services available
from published aviation
sources.
Demonstrate an understanding of the Air Traffic Control
system as it pertains to instrument pilots
Copy and interpret ATC
Clearances
Interpret and apply appropriate
sections of the Federal
Aviation Regulations,
Airport/Facility Directory and
Aeronautical Information
Manual
Exhibit behavior appropriate for an aviation professional.
Comply with minimum FAA
standards for course
completion
AVP 242. Instrument Flight
II (3). Procedures for IFR
departure, enroute and arrival
operations. Preparation for

FAA aeronautical knowledge exam. A minimum grade of $B$ is required for an FAA graduation certificate. Prerequisite: AVP 241. Corequisite: AVP 312.
Upon successful completion of this course, the student will be able to:
Determine the proper holding entry and interpret navigation instruments to determine aircraft position in relation to a holding fix.
Interpret En Route and STAR arrival charts and be able to correctly identify transitions from the en route phase to the approach phase of flight. Interpret arrival procedures Identify the various approach segments of precision and nonprecision approaches; interpret information from the heading section, plan view, and profile view; identify stepdown fixes and visual descent points, and determine take off procedures and minimums, approach category and minimum descent altitudes, and visibility requirements on both NOS and Jeppesen approach charts. Interpret Instrument approach charts including straight in and circling approaches, radar vectors course reversals, timed approaches from a holding fix, side step maneuvers, visual and contact approaches, and missed approach procedures. Interpret textual and graphic information from VOR, NDB, GPS, and RNAV instrument approach charts.
Interpret weather reports and forecasts and determine suitability for planned flight Recognize factors in the IFR Decision Making Process and describe the procedures to be followed in the event of an emergency.
Plan an IFR cross country
flight with approaches at several airports.
Note: SQ homework is mostly scenario based.
AVP 296. Individual Study (1-6). By permission. May be repeated for credit.

AVP 298. Special Topics (1-
6). Course content identified by title in the university class schedule. May be repeated for credit under different titles
AVP 299. Seminar (1-5). May be repeated if subject is different.

## AVP 304. Commercial Pilot

 Flight Laboratory I (2). Plan and conduct VFR crosscountry flights using pilotage, dead reckoning, and radio navigation. Night flight operations. Course will be offered every year (Fall, Winter, Spring, Summer). Coor Prerequisite: AVP 354. Upon successful completion of this course, the student will be able to:Interpret weather briefings to make a safe go/no-go decision Plot and execute VFR cross country flights using all three forms of navigation
Develop awareness of hazards associated with night flying and best practices to reduce risk.
AVP 305. Commercial Pilot Flight Laboratory II (2).
Operation of complex aircraft and basic knowledge of advanced commercial maneuvers. Course will be offered every year (Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Take off and land the training airplane on short and soft fields Power Off and On stall recoveries, demonstrate chandells, lazy eights, eights on pylons, and steep spiral maneuvers
Demonstrate the proper use of complex systems including retractable landing gear, flaps, and a constant speed propeller
AVP 306. Commercial Pilot
Flight Laboratory III (2).
Review of instrument procedures ASEL. Perform flight maneuvers and procedures to FAA commercial pilot ASEL practical test standards. Course will be offered every year (Spring, Summer)

Upon successful completion of this course, the student will be able to:
Review instrument procedures and demonstrate instrument proficiency in a single engine airplane.
Demonstrate consistent
accuracy for all ASEL
commercial maneuvers
AVP 308.
Instrument/Commercial Pilot
Flight Laboratory (1). Flight
operations for recurrent and
standardization training for Instrument/Commercial Pilot transition. May be repeated up to 3 credits. Grade will be S or U. Department permission. Upon successful completion of this course, the student will be able to:
Perform maneuvers and/or tasks to FAA practical test standards or to FAA FAR61 currency standards as appropriate.
AVP 312. Aviation Weather Services (3). Comprehensive analysis of weather service for flight crews, including interpretation of applicable alpha-numeric and graphic weather reports and forecasts. Co-requisite: AVP 241.
Upon successful completion of this course, the student will be able to:
Decipher and interpret aviation weather reports provided in graphical and alphanumeric format by the Federal Aviation Administration (FAA) and the National Weather Service (NWS) at the level required for U.S. Commercial \& Airline Pilot certification.
Decipher and interpret aviation weather forecasts provided in graphical and alphanumeric format by the Federal Aviation Administration (FAA) and the National Weather Service (NWS) at the level required for U.S. Commercial \& Airline Pilot certification.
Identify the various sources from which up-to-the-minute aviation weather information can be obtained for a given flight.

Decipher, interpret and analyze aviation weather reports and forecasts and apply this information to determine the suitability of, and weather conditions for, a simulated cross- country IFR flight in a light airplane
Decipher, interpret and analyze high altitude weather data provided in graphical and alphanumeric format. Thoroughly explain one weather hazard and how it can be effectively managed by flight crew.
AVP 319. Applied
Aerodynamics (3). Theories of flight and flight factors including airfoil shape, drag, velocity, lift and thrust, stability and control. Corequisite: AVP 242.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the four forces acting on an airplane in flight. Explain the major theories used to explain lift on an airfoil. Describe the effect of angle of attack and airspeed on the lift and drag characteristics of a wing.
Demonstrate an understanding of the principles of propulsion. Explain the major factors contributing to stability and control.
Summarize the principles basic principles of high speed flight.
AVP 321. Aircraft Systems -
Turboprop (3). Introduction and familiarization of turbine engines and turboprop aircraft systems. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: AVP 221 and AVP 354.
Upon successful completion of this course, the student will be able to:
Discuss and analyze aircraft turbine engine design and construction.
Discuss and analyze turbine engine theory of operation. Discuss and analyze turbine engine lubrication and cooling

Discuss and analyze aircraft propellers and governors. Discuss and analyze common turbine electrical systems. Discuss and analyze aircraft hydraulic and pneumatic systems.
Discuss and analyze aircraft fuel systems.
Discuss and analyze aircraft
flight control systems.
Discuss and analyze aircraft instrumentation.
Discuss and analyze advanced avionics and autopilot systems.
AVP 322. Aircraft Systems II
(3). Complex aircraft systems. Prerequisite: AVP 221.
Upon successful completion of this course, the student will be able to:
Expand on their knowledge of principles of mathematics useful in evaluating physical properties of systems. Expand on their knowledge of principles of physics applicable to study of aircraft systems. Demonstrate a working knowledge of various aircraft powerplants, including theory, components and operation Discuss, analyze, and describe complex propeller systems and operation
Discuss, analyze, and describe fuel and fuel injection systems Compare and Contrast differences between normally aspirated, supercharging, and turbo charging
Discuss, analyze, and describe pressurization and high altitude operations
Demonstrate a working knowledge of aircraft electrical systems, including operation and troubleshooting Discuss, analyze, and describe Hydraulic and Pneumatic Systems (deicing/anti-icing) Discuss, analyze, and describe the various types of aircraft structures and flight controls Discuss and have a general knowledge of turbine engine design and operation
AVP 323. Advanced
Navigation (3). Advanced navigation systems, their function, operation and
application. Prerequisite: AVP 354.

Upon successful completion of this course, the student will be able to:
Discuss and analyze GPS and WAAS theory.
Discuss and analyze G1000
system components.
Discuss and analyze G1000
PFD function and operation.
Discuss and analyze G1000
MFD function and operation.
Discuss and analyze
communication radios and
audio panel function and operation.
Discuss and analyze engine indication system.
Discuss and analyze flight planning using the G1000. Discuss and analyze autopilot and flight director function and operation.
Discuss and analyze system failures.
AVP 331. National Airspace
System (3). The national air traffic control system, control procedures, the integration of centers, approach
communications, navigation procedures, radar operations, and facilities.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the history and evolution of the national airspace system (NAS)
Be able to describe and graphically depict physical dimensions and aeronautical chart depiction of each class of airspace in the ICAO airspace classification system.
Be able to explain
communications, navigation equipment, weather, and flight
rule requirements pertinent to each class of airspace in the ICAO system.
Be able to describe and understand the Air Traffic Control structure, communications, procedures, and the theory and fundamentals of ATC radar. Explain how an operating Control Tower functions, the various duties assigned to

Control Tower personnel, and how they coordinate their duties to control aircraft. Describe and understand radar separation, oceanic and international Air Traffic Control, the future of ATC, and FAA involvement in ATC functions
AVP 332. Aviation History
(3). Major developments in the history of powered flight. Includes perspectives from civilian, military, international, and air carrier operations. Prerequisite: ENG 101 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Become familiar with the
aircraft, persons, and events in aviation history.
Demonstrate an understanding of significant events, persons, and aircraft in aviation history, which led to the development of aviation as we know it today.
Describe a historical aviation
event, person, or aircraft. Note: no papers allowed on the Wright Brothers, Amelia Earhart, or Charles Lindberg. Display recognition of the contributions of minorities to the development of aviation.

## AVP 337. Aviation

Physiology and Survival (4).
Physiological aspects of flight crew performance, including effects of high altitude, accelerations, disorientation, and fatigue. Basic introduction to wilderness survival. Prerequisites: AVP 141 and AVP 142.
Upon successful completion of this course, the student will be able to:
Describe the physiological effects of high altitude on pilot performance and identify strategies necessary to avoid or effectively manage them, including:
Hypoxia, trapped \& dissolved gas(DCS)
Cabin environmental factors (vibration, humidity, radiation, ozone)

Summarize the major visual perceptual limitations that affect pilot performance and identify strategies necessary to effectively manage them, including:
Visual identification of aircraft (see\& avoid concepts), visual illusions, visual flight in impoverished conditions (night , reduced visibility, flat light) Explain the non-visual sensory systems which are responsible for giving humans their sense of spatial orientation, identify the various illusions that may manifest themselves when outside visual references are diminished, and identify the strategies necessary to effectively overcome these illusions, including; Vestibular and somatosensory systems, somatogyral illusions, somatogravic illusions Describe how individual health choices may affect pilot performance in flight, including: medication, alcohol \& drugs, diet, exercise and physical fitness Summarize the effects of fatigue on pilot performance and identify alertness management strategies necessary to reduce its effects, including: circadian dysrhythmia, time awake, sleep debt, insomnia, sleep disorders, scheduling, a nd commuting practices.
Provide examples of how physiological limitations have contributed to aircraft accidents and/or incidents, including: hypoxia, visual illusions \& visual flight at night, spatial disorientation, and fatigue . Describe the physiological effects of increased accelerations (+Gz \& - Gz) on pilot performance, including: greyout, blackout, redout, Ginduced loss of consciousness (GLOC).
Identify and explain the fundamental principles of surviving an aircraft accident
and facilitating rescue, including: aircraft crashworthiness \& crash
survival factors, physiological \&first aid priorities, shelter from environment, food \& water procurement and facilitating rescue (SAR)
AVP 340. Human Factors in
Flight (5). Physiological and psychological aspects of flight crew performance. Course will be offered every year (Fall, Spring). Prerequisite: AVP 241.

Upon successful completion of this course, the student will be able to:
Describe the physiological effects of hypoxia, trapped gas and dissolved gas (DCS) on pilot performance and list or identify strategies necessary to avoid or effectively manage them.
Identify or describe the major visual and auditory perceptual limitations that affect pilot performance and the strategies necessary to effectively manage them, including: midair collision avoidance, visual illusions, impoverished visual conditions and communication difficulties. Compare and contrast the limitations of the vestibular and somatosensory systems and identify the somatogyral and somatogravic illusions they create that lead to spatial disorientation (SD). Analyze the effects of noise, poor health choices, fatigue and sleep disruption, and acceleration on pilot performance and identify strategies necessary to reduce their effects. Summarize specific examples of how physiological, perceptual, and cognitive limitations, as well as difficulties with automated systems, have contributed to aircraft accidents and/or incidents. Critique specific examples of how inadequate flight deck design has contributed to errors made by flight crew and describe principles and/or examples of controls and/or displays that are designed to reduce error.

Appraise ways to reduce the effects of distractions and forgetfulness on the flight deck.
Evaluate decision biases, while recall and explain the five hazardous attitudes and their antidotes, and discover their own personal hazardous attitude tendencies.
AVP 348. Air Carrier
Operations (4).
Familiarization and utilization
of Company Operations
Manual excerpts, Operations
Specifications, and Minimum Equipment Lists, and the Code of Federal Regulations (CFR), Hazardous Materials (HMR) part 175, CFR parts 119, 120, 121, and NTSB830 to determine safety of flight and compliance with company policies and procedures and federal regulations. Exposure to multi-crew environment and expectations of professional behavior for flight crews. Prerequisite: AVP 354. Upon successful completion of the course, the student will be able to:
Utilize FAR 119 and 121 to determine required contents of operations specifications for an FAR121 domestic operation Utilize FAR 119 and 121 to determine required management personnel Utilize a sample company manual to aid in pre- flight, inflight, and post-flight planning \& decision making Recognize acceptable and unacceptable flight and duty assignments
List required instruments, radios, and equipment required for specified operations Determine dispatch status for an aircraft with inoperative equipment.
Differentiate and describe information included in dispatch releases and flight releases, and identify personnel responsible for their content. Determine flight and duty time limitations.
Explore personal beliefs regarding FAA, air carrier, and public expectations for
professional behavior of air crews
Identify situations which require contemplation personal ethics to make the best choice
for a course of action
AVP 352. Multiengine
Principles (2). Discussion and study of multiengine aerodynamics, operating procedures, systems, performance, weight, and balance considerations, engineout procedures, single-engine aerodynamics, and instrument flight. Prerequisite: AVP 354. Upon successful completion of this course, the student will be able to:
Describe, discuss, compare, and contrast multi engine and single-engine aerodynamics applicable to a light twinengine airplane.
Describe and discuss multiengine emergency procedures including proper flight control inputs with the loss of an engine.
Describe and discuss multiengine aircraft systems, including the systems of the Seminole.
Calculate weight and balance and aircraft performance for multi engine aircraft and the Seminole.
Describe and discuss normal, abnormal, and emergency procedures appropriate to twin engine aircraft and the Seminole.
Compare and contrast instrument procedures in single engine and multi engine aircraft.
Demonstrate to the instructor that he/she meets the requirements of FAR141 for aeronautical knowledge for a Multiengine Land class rating for IFR conditions.
AVP 354. Commercial Pilot
(4). Operation of advanced systems appropriate to complex airplanes and execution of advanced flight maneuvers. Preparation for FAA written examination. A minimum grade of $\mathrm{B}-$ in CW's FAA course graduation certificate as required by

FAR141. Prerequisites: AVP 103 and AVP 242.
Upon successful completion of the course, the student will be able to:
Work cooperatively with small groups to complete assigned projects
Compute weight and balance calculations including how to adjust loading to bring aircraft into weight and balance limitations
Describe the aerodynamic principles involved in commercial maneuvers and discuss the techniques involved in mastering the maneuvers Recognize potentially hazardous situations and describe prescribed emergency procedures for systems failures, hazardous weather, and human factors Describe the decision making process pertaining to commercial operations Cumulative and Final Assessments
AVP 375. Mountain and Canyon Flying (3). Synthesis of fundamental concepts and practices including navigation in mountainous terrain, aircraft performance and density altitude, canyon flying and airport operations in constricted areas, mountain and canyon meteorology, emergencies, and flight safety. Prerequisite: AVP 103 or permission of the instructor or department.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to recognize and analyze, with respect to flight planning and in-flight decision making, basic mountain weather patterns and hazards, including: Mountain waves, thunderstorms, Orographic lift, Diurnal effects, upslope and downslope winds, Katabatic winds, venturi effects, and weather hazards.
Discuss various types of navigation in mountain and canyon terrain, including: Flight Planning, Pilotage and
position reporting, maps and Charts, Types of VFR navigation, GPS and radio, Navigation, sun angles, time of day, and hazards.
Identify components of preparing for mountain/canyon flight including preparation of aircraft and pilot, including: Aircraft preflight items, practicing for mountain flight, Turn radius vs airspeed, flying a steep stabilized mountain approach, takeoffs, landings, and go-arounds. Determine pertinent data relevant to density altitude and aircraft performance that will contribute to safety of flight operations, including: Determining Density Altitude (DA), effects of reduction in DA on aircraft power and thrust, Power loading and weight reduction, takeoff, landing, and climb performance, proper mixture leaning techniques, maneuvering and performance. Identify and discuss operations at airstrips and landings areas, including: Checking out the Airstrip, runway gradient effects, wind direction(s) and intensity, gradient vs wind, approach and departure planning.
Discuss application of mountain and canyon flying techniques to hazardous terrain and flight operations including: Enroute operations, descent, approach, and landing; taxi and ground operations, takeoff and climb, and Go-arounds. Demonstrate knowledge of skills, procedures and preparation for emergencies and forced findings in mountainous and canyon terrain, including survival equipment and tactics.
AVP 396. Individual Study (1-6). May be repeated if subject is different.
AVP 397. Honors (1-12).
Prerequisite: admission to department honors program.
AVP 398. Special Topics (1-
6). May be repeated if subject is different.

AVP 399. Seminar (1-5). May
be repeated if subject is
different.
AVP 401. Multiengine Flight Laboratory (2). Operation of multiengine aircraft systems. Perform normal and emergency procedures to FAA practical test standards for Commercial AMEL certificate. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: AVP 352.

Upon successful completion of this course, the student will be able to:
Demonstrate proper
multiengine preflight
procedures
Control multi engine aircraft in straight and level flight, constant altitude change of airspeed, constant airspeed climbs and descents, and turns to heading while in the traffic pattern
Demonstrate flight at critically slow airspeed, power on and power off stalls
Demonstrate steep turns
Demonstrate proper procedures
for emergency descent and
systems and equipment malfunctions
Explain high altitude
operations
Demonstrate proper procedures
for normal, Crosswind, and
Short field takeoffs and
landings
Demonstrate engine out procedures
Demonstrate proper recovery
from simulated loss of directional control (VMC demonstration)
Demonstrate proper holding techniques
Demonstrate proper instrument procedures while operating twin engine and single engine Demonstrate proper procedures for flight planning enroute navigation and DME arcs
AVP 402. Certified Flight Instructor Laboratory (2). Analyze and perform maneuvers from the right seat. Demonstrate proficiency and instructional knowledge to FAA practical test standards.

The student must possess a Commercial Pilot certificate ASEL to enroll. Department permission. Course will be offered every year (Fall, Winter, Spring, Summer). Formerly AVP 301, students may not receive credit for both. Prerequisite: AVP 448. Upon successful completion of this course, the student will be able to:
Analyze and perform all maneuvers required for private and commercial pilot certification, from the right seat of the training airplane Demonstrate proper single pilot resource management procedures and effective aeronautical decision making skills
Recognize and explain the elements of each of the maneuvers and procedures listed in the syllabus and prepare lesson plans in accordance with FAA guidelines Meet the requirements for aeronautical knowledge, skill and experience necessary to meet the requirements of a flight instructor certificate with an airplane category rating and a single-engine class rating
AVP 410. Crew Resource Management (3).
Fundamental concepts of crew resource management (CRM) with practical application of human factors and performance on the modern
flight deck. Course will be offered every year (Fall, Summer). Prerequisite: AVP 340.

Upon successful completion of this course, the student will be able to:
Identify the ways in which psychosocial pressures can negatively influence pilot decision making and summarize several aircraft accident examples that illustrate this.
Define crew resource management (CRM) and explain the major elements of effective CRM.

Explain the five aspects of effective communication and summarize at least two aircraft accidents that were attributed to breakdowns in
communication.
Draw and explain the components of the relationship vs. task grid and discover their own personal assertiveness tendencies.
Illustrate the adverse effects of stress on flight crew performance, list or identify sources of stress, and explain effective strategies used to manage stress.
Summarize the factors that contribute to effective leadership and team performance.
Exhibit, through interaction with other students in a simulated crewed environment, proper pilot decision making and conflict resolution skills associated with fundamental CRM problems.
Evalaute common problems on the flight deck.
AVP 421. Aircraft Systems
III-Turbojet (4). Introduction and familiarization of transport category aircraft systems. Course will be offered every year (Fall, Winter, Spring,
Summer). Prerequisite: AVP 321.

Upon successful completion of this course, the student will be able to:
Discuss and analyze the operation of each of the CRJ-
200 systems presented in class. Explain how the various redundant back- up systems act in response to main- system malfunctions.
Identify required aircraft limitations from memory. Accurately interpret the meaning of various visual/aural caution and warning system indicators.
AVP 444. Multiengine FTD, Baron G58 (2). Introduction to and familiarization of Electronic Flight Instrument Systems (EFIS), Crew Resource Management (CRM) in multi-crew environment, and use of flight director and
autopilot in a simulated flight environment. Prerequisite:
AVP352, admitted to the Flight Officer specialization or department permission. Upon successful completion of this course, the student will be able to:
Demonstrate proper interpretation of multiengine instrumentation and operational limitations. Perform standard instrument departures, enroute, holding, arrival and approach procedures.
Perform simulated emergency and abnormal procedures. Demonstrate effective Crew Resource Management (CRM) procedures.
Demonstrate appropriate ATC normal and lost communication procedures.

## AVP 445. Turboprop FTD,

King Air 200 (2). Introduction and familiarization of turbinepowered aircraft operations in a simulated flight environment, including Crew Resource Management (CRM), Electronic Flight Information Systems (EFIS), Flight Director (FD), and Autopilot (AP) operations. Department permission. Prerequisites: AVP 422 and AVP 444
Upon successful completion of this course, the student will be able to:
Demonstrate proper interpretation of turboprop instrumentation and operational limitations. Perform standard instrument departures, enroute, holding, arrival and approach procedures.
Perform simulated emergency and abnormal procedures. Demonstrate effective Crew Resource Management (CRM) procedures.
Demonstrate appropriate ATC normal and lost communication procedures.
AVP 448. Fundamentals of Flight Instruction (5). A twopart course consisting of fundamentals of instruction and flight instructor airplane subjects. Details the role of the
airplane flight instructor, including privileges and responsibilities, teaching aeronautical decision making, flight safety, and professionalism. Department permission. Prerequisites: AVP 354 and AVP 304.
Upon successful completion of this course, the student will be able to:
Demonstrate the necessary skills to teach primary and advanced students in aerodynamics, basic air work, stall/spin awareness, low altitude air work, cross country flying, night flying, systems and equipment malfunctions, complex aircraft operation and systems, and advanced maneuvers.
Demonstrate the ability to give student endorsements in all phases of flight to include private and commercial pilot, biennial review flights, written and practical FAA tests, and have a thorough knowledge of FAR's.
Demonstrate the necessary organizational and communications skills to teach student pilots in various phases of training to include private and commercial maneuvers. Objectively evaluate their peers on each of the formal presentations and to accurately demonstrate the knowledge necessary to correctly analyze the specific aeronautical subjects.
To correctly analyze a student's deficient areas in aeronautical knowledge and to promptly and effectively teach the student the proper procedure to correct the deficient area.
AVP 458. Advanced Flight Instruction, Instrument (3). Methodology used in teaching instrument flight and acquisition of the Instrument Ground Instructor certificate (IGI). Prerequisite: AVP 448, and Certified Flight Instructor Certificate course stage 1. Upon successful completion of this course, the student will be able to:

Be familiar with standard vacuum and pitot static instruments operations and failures and how to troubleshoot
Be able to teach basic attitude instrument flying techniques, including scanning and instrument interpretation. Be able to teach IFR operations, including holding patterns, approach and departures, and enroute procedures, including ATC clearances and communications. Exhibit IFR level knowledge of Federal aviation regulations, weather and decision making, and emergency planning. Be able to teach IFR charts and procedures, including various ILS, VOR, NOB, and GPS approaches
Demonstrate the necessary skills to teach aircraft flight instruments and their systems, navigation instruments, Departure, Enroute, and Arrival Charts, holding entries and procedures to interpret navigation instruments to determine aircraft position in relation to a holding fix. AVP 469. Turbojet Operations (4). Introduction and familiarization of transport category aircraft operations including; Crew Resource Management (CRM), flows and checklist procedures, aircraft limitations, normal and emergency operational procedures. Prerequisite: AVP 423.

Upon successful completion of this course, the student will be able to:
Demonstrate proper interpretation of turbojet instrumentation and operation of aircraft systems related to the Bombardier CRJ-200. Demonstrate appropriate normal operational procedures, including flows, procedures and checklists.
Identify required aircraft limitations from memory. Identify emergency and abnormal conditions and
perform the proper procedure or checklist.
Describe appropriate inputs using the Collins avionics suite, including FMS, PFD, MFD and EICAS. Demonstrate effective Crew Resource Management (CRM) procedures.

## AVP 470. Professional Pilot

Capstone (1). Drawing from coursework accomplished in flight operations, pilot certification, aviation safety, and aviation career preparation; students will prepare an academic portfolio that reflects their culminating
learning experience and accomplishments in the Professional Pilot degree program. Department permission. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: AVP 305, AVM 350, and AVM 418.
Upon successful completion of this course, the student will be able to:
Assemble the required artifacts into a specified format. Reflect on challenges and accomplishments during their program of study
Collaborate with instructor for improvements to finished product.
AVP 489. Turbo FTD, CRJ-
200 (3). Introduction and familiarization of turbojetpowered aircraft operations in simulated flight environment, including Crew Resource Management (CRM), Electronic Flight Instrument Systems (EFIS), Engine Indicating Crew Alerting Systems (EICAS), Flight Director (FD), and automation philosophy/operation. Student may be enrolled in AVP 469 with AVP 489 in the same quarter with department permission. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: AVP 421. Co- or Prerequisite: AVP 469. Upon successful completion of this course, the student will be able to:

Demonstrate proper interpretation of turbojet instrumentation and operational limitations. Perform standard instrument departures, enroute, holding, arrival and approach procedures.
Perform simulated emergency and abnormal procedures.
Demonstrate effective Crew Resource Management (CRM) procedures.
Demonstrate appropriate automation and autopilot procedures.
Demonstrate appropriate ATC normal and lost communication procedures.
AVP 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
AVP 496. Individual Study (1-6). By permission. May be repeated for credit.
AVP 497. Honors (1-12). Prerequisite: admission to department honors program.
AVP 498. Special Topics (1-
6). Course content identified by title in the university class schedule. May be repeated for credit under different subtitle.
AVP 499. Seminar (1-5). May be repeated for credit. AVP 475A. Specialty Flight Laboratory: Single Engine Seaplane (1). Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. May be repeated for a different specialty. Grade will either be $S$ or $U$. Prerequisite:
FAA pilot certificate or equivalent and permission. Upon successful completion of this course, the student will be able to:

Receive instruction and be able to demonstrate at the minimum airplane docking, water taxiing, and water take-offs and landings.
AVP 475B. Specialty Flight
Laboratory: Multiengine
Seaplane (1). Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. May be repeated for a different specialty. Grade will either be S or U . Prerequisite: FAA pilot certificate or equivalent and permission. Upon successful completion of this course, the student will be able to:
Receive instruction and be able to demonstrate at the minimum airplane docking, water taxiing, and water take-offs and landings.

## AVP 475C. Specialty Flight

Laboratory: Helicopters (1).
Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. May be repeated for a different specialty. Grade will either be $S$ or U. Prerequisite:
FAA pilot certificate or equivalent and permission. Upon successful completion of this course, the student will be able to:
Receive instruction in preflight, hovering maneuvers, and take-off and landing procedures, and other maneuvers deemed necessary by the instructor.

## AVP 475D. Specialty Flight

 Laboratory: Mountain Flying (1). Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. Prerequisite: FAA pilot certificate or equivalent and permission. May be repeatedfor a different specialty. Grade will either be S or U .
Upon successful completion of this course, the student will be able to:
Identify components of preparing for mountain/canyon flight including preparation of aircraft and pilot and will identify and discuss operations at airstrips and landings areas.
AVP 475E. Specialty Flight
Laboratory: Aerobatics (1).
Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. May be repeated for a different specialty. Grade will either be S or U . Prerequisite: FAA pilot certificate or equivalent and permission. Upon successful completion of this course, the student will be able to:
Receive instruction in an aerobatic airplane and will perform various aerobatic maneuvers with supervision of a qualified flight instructor.
AVP 475F. Specialty Flight
Laboratory: Other (1).
Receive ground and flight instruction in the listed specialty. Flight hours will vary with each specialty. A minimum of 10 flight hours normally required for credit except as approved by aviation faculty. Hang gliders are specifically omitted. By advisement and permission. May be repeated for a different specialty. Grade will either be S or U. Prerequisite: FAA pilot certificate or equivalent and permission.
Upon successful completion of this course, the student will be able to:
Working with the faculty advisor, the student will describe the focus of study, formulate plan of action to pursue study, document steps taken in course of study, and present findings.
BIOL 101. Fundamentals of Biology (5). Introduction to
scientific inquiry and basic principles of biology at molecular, cellular, organismal, community, and ecosystem levels as applied to humans, society, and the environment. Four hours lecture and one two-hour laboratory per week. May not be counted toward a major or minor in the department of biological sciences. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, Spring, and Summer). Upon successful completion of this course, the student will be able to:
Describe advancements in our understanding of cell biology, genetics and biotechnology and explain practical applications of these areas in medicine. Compare and contrast the scientific process with other systems of thought and explain how the process of science is used to predict natural phenomena.
Generate testable hypothesis, design experiments, collect and analyze data.
Describe the processes and components of Mendelian Inheritance. Analayze and interpret scientific data.

## BIOL 181. General Biology I

(5). Introduction to the scientific method and the principles of ecology, genetics and evolution. Four lecture hours and three laboratory hours per week. Co- or prerequisite: CHEM 181. Upon successful completion of this course, the student will be able to:
Apply the scientific method to investigate biological phenomena
Discriminate among the hierarchical levels of ecological organization and the emergent properties of each level.
Explain ways in which organisms interact with their abiotic and biotic environments.

Describe how meiosis results in genetically diverse offspring.
Illustrate how genetic information can produce different patterns of inheritance and solve basic genetics problems
Explain how evolution results in changes within populations and changes in biological diversity.
Trace the development of evolutionary ideas through time.
Explain how organisms are grouped into kingdoms and domains. Identify
characteristics that define these
groups as well as
representative organisms.
BIOL 182. General Biology
II (5). Introduction to the principles of cellular and molecular biology. Four lecture hours and three laboratory hours per week. Prerequisite: BIOL 181. Co- or prerequisite: CHEM 182.
Upon successful completion of this course, the student will be able to:
Explain and illustrate how all cells store, use, and pass genetic information to progeny cells
Apply laws of thermodynamics and principles of chemi try to explain how all cells acquire and transform energy via cellular processes (respiration, photosynthesis, etc.) Demonstrate proficiency in the use of microscopes, spectrophotometers, and perform standard cell biology measurements Describe the relationship between cell structure (i.e., cellular components and organization) and cell function. Describe cell-cell interactions during development and within mature organisms.
Apply principles of cellular functions to processes of clonal organisms, biotechnology, and cancer
BIOL 183. General Biology
III (5). Introduction to the form and function of multicellular organisms. Four
lecture hours and three laboratory hours per week. Prerequisite: BIOL 182. Co- or prerequisite: CHEM 183. Upon successful completion of this course, the student will be able to:
List, identify, describe or explain major anatomical structures of plants and animals.
Describe physiological processes of plants and animals including reproduction, metabolism, transport, and development.
Compare and contrast animal and plant strategies for regulatory responses to the environment.
Design, conduct, and present a research project in organismal biology.
Integrate biological and
chemical concepts in understanding how organisms function.
Demonstrate proficiency with laboratory techniques commonly utilized in physiology.

## BIOL 200. Plants in the

 Modern World (5). In this course, students will develop a broad knowledge base about plants, their life processes and ways in which humans are dependent on plants and their products. The course includes inquiry-driven laboratory and field observations. May not be counted toward a major or minor in the department of biological sciences. NSPatterns and Connections Natural World (W) (L). Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:Apply concepts of plant biology to current topics of personal and societal relevance.
Analyze current research and engage in critical thinking exercises to develop and defend positions on biological issues.

Collect, analyze, and interpret laboratory and field-collected data to investigate biological questions and visualize cause and effect relationships in plant biology.
Demonstrate an understanding of conceptual models of complex biological systems processes to the importance of plants for the functioning of the biosphere.
Apply mathematical and quantitative skills to solve problems in plant biology. Describe the use of plants and plant products in their daily lives.
Understand how uses of plants as staples in their diet differs in communities across the world. Connect how choices in resource use (for example, food choices, food waste, fertilizer use) can affect others in their community.
Debate issues of personal and public concern, e.g., use of nitrates and genetically modified organisms in farming and organic vs. conventional methods of agriculture. Observe the use of plants in different cultural traditions, e.g., Thanksgiving, Japanese Tea Ceremonies, and Traditional Herbal Medicines and describe the value of these traditions to people in those communities.
Determine the trophic levels of the food items that they consume and calculate the energy related to that consumption. Calculate their ecological footprint and determine how modest changes can reduce their footprint. They will also compare the footprint of the average person in the US with those from other parts of the world.
Investigate methods of production for different food items and distinguish between sustainable and non-sustainable farming practices. Compare and evaluate multiple solutions to the problem of providing food for an increasing human population
with minimum impact on the environment.
Recognize the disparate socioeconomic impact of the "War on Drugs" for various drug plants (marijuana, opium, cocaine, etc.).
The production of plants has often been associated with instances of social injustice. Students will study and discuss the importance of group membership in multiple examples, such as the Irish Potato Famine, the Atlantic Sugar-Slave Triangle, and the use of slaves in modern chocolate production. Compare the availability of fruits and vegetables in communities from different economic levels in the area to determine the level to which "food deserts" occur in local communities.
Analyze the availability of food and plant products to them personally and compare their usage to that for others in the world. Students will also discuss how social, economic and political structures determine human uses of plants for food, fuel and medicine.

## BIOL 201. Human

Physiology (5). An
introduction to the function of human cells, organs, and organ systems as it relates to health and well-being current developments, and society. Not open to students with credit in BIOL 455; may not be counted toward a major or minor in the department of biological sciences. NS-Patterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Identify and discuss
contemporary breakthroughs or issues in science and medicine and their societal relevance. Analyze and interpret realworld human subject data to evaluate the function of organ systems under both normal and
disease states to diagnose medical conditions.
Describe the function and interaction between human organ systems.
Describe common human diseases/disorders and how access to current medical approaches for treatments affects outcomes.
BIOL 204. The Science and Practice of Growing Plants
(5). An introduction to the scientific principles and realworld practices of growing plants for household, community, and horticultural uses. The course will cover topics ranging from physiology to sustainability and involves independent and communityfocused projects. Course will not have an established scheduling pattern (Spring and Summer).
Upon successful completion of this course, the student will be able to:
Define the key physiological and anatomical aspects of plants that are important for production and how the environment (water, temperature, light, nutrients) affects plant cultivation and growth.
Recognize how humans have used scientific discoveries and technological advancements to alter the environment for optimizing plant yields by matching the major scientific discoveries or technological advancements to the increases in harvests gained. Discuss the personal, social, political, ecological, and/or ethical tradeoffs associated with scientific discoveries and technological advances for growing plants. Apply their knowledge of the trade-offs of technological advancements in growing plants to prepare a set of testable hypotheses on how to improve the cost/benefit ratio. Students will be able to design an appropriate garden experiment and predict the outcomes of the experiment.

Employ the analytical methods required to present the results and calculate the success of their experiments in a written report that is understandable to a general, community-wide audience.
BIOL 205. Microbes and Mankind (5). Microbes are significant in our daily lives. The course covers disease and epidemics, prevention and control of infectious disease, the necessity of microbes in health, and the use of microbes for the benefit of mankind. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Explain how scientific method is employed to understand microbial processes Analyze and explain primary literature and peer review process
Describe different types of pathogens
Describe historical epidemics of humans and in agriculture Identify reliable outlets of scientific information retrieve information regarding current and past epidemics Calculate incidence and prevalence of diseases using morbidity and mortality data Predict the onset of an epidemic by graphing epidemiological data Describe different types of vaccines and how they induce immunity
Identify risks and advantages of vaccination
Identify fallacies and misinformation/misconceptions in science
Explain how antibiotics and antivirals control microbial growth
Describe epidemic control methods
Explain various methods of biological waste treatment Describe microbes' role in biotechnology
Identify limitations and risks of biotechnology

BIOL 213. Introductory
Biostatistics (4). An
introduction to commonly used methods for analyzing biological data. Use of statistical and graphical software will be emphasized. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisites:
(MATH 153 or MATH 154 or MATH 172) or (a score of 17 or higher on the Advanced Math Placement Test) or (a score of College Math 65+ or higher in Acuplacer) or (a score of 46 or higher on the Compass College Algebra Test).
Upon successful completion of this course, the student will be able to:
Compile raw biological data to construct graphs, tables and charts using computer software Determine appropriate statistical analyses for a vareity of different types of biological data
Analyze biological data using statistical software.
Interpret results of statistical analyses to address hypotheses Communicate statistical results visually, orally, and in written form.
BIOL 220. Introductory Cell
Biology (5). Concepts,
processes and structures involved in understanding life at the cellular level. Does not count toward biology majors for students who complete BIOL 181, 182, and 183. Prerequisites: CHEM 113 or 183.

Upon successful completion of this course, the student will be able to:
Integrate chemistry principles that determine the structure and organization of biological molecules within a cell.
Apply principles of chemistry and physics to explain how all cells acquire and transform energy via cellular processes. Demonstrate proficiency in microscopic and cell biology techniques.

Describe how cells regulate genetic information to control cell type and behavior. Explain and illustrate examples of cell-cell interactions and the intracellular responses to those interactions.
BIOL 262. Natural History of the Pacific Northwest (5). Classroom, lab and flied exploration of the biological diversity of the Pacific Northwest. Emphasis will be on the natural history of local flora and fauna and their ecological and evolutionary relationships. Mat not be counted toward a major in the department of biological sciences.
Upon successful completion of this course, the student will be able to:
Recognize native species and apply biological concepts to current topics of personal and societal relevance
Recognize major biotic communities of the Pacific NW, and interpret patterns therein to deduce the level of human disturbance to native ecosystems. Make observations and collect data in a field notebook, and then analyze those data to address hypotheses through the scientific method. Use dichotomous keys, field guides, and other methods to identify organisms in nature and to infer patterns of biological diversity and evaluate ecosystem health. Identify common organisms in native ecosystems of our region and infer ecosystem health from the presence or absence of those organisms.
BIOL 295. Research (1-6).
Laboratory research experience. May be repeated up to 15 credits.
Upon successful completion of this course, the student will be able to:
Design research project in biological sciences Perform experiments Collect and analyze data for research projects

Present research is written or oral form
BIOL 298. Special Topics (16).

BIOL 299. Seminar (1-5).
May be repeated if subject is different.
BIOL 300. Introduction to
Evolution (5). An introduction to the Darwinian theory of evolution. Exploration of the mechanisms of evolutionary change, speciation, and macroevolutionary patterns of the evolution of life on Earth including humans. May not be counted toward a major or minor in the department of biological sciences. NSPatterns and Connections Natural World. Course will not have an established scheduling pattern. Prerequisite: sophomore standing or above. May not be counted toward a major in the department of biological sciences.
Upon successful completion of this course, the student will be able to:
Apply the principals of evolutionary theory to examples from current research with community and societal implications.
Utilize real-world
observational or experimental
data to evaluate, analyze, and
interpret evolutionary theory.
Use evolutionary models to
formulate and test questions
about real-world data in evolutionary biology.
Identify the consequences of evolutionary forces (e.g. natural selection, genetic drift, non-random mating, migration, and mutation) on populations.
Analyze how evolutionary forces, speciation processes, and geologic and environmental events influence macroevolutionary patterns.
Explore the controversy concerning evolutionary thought in the context of your personal community and worldview.
BIOL 302. Sustainability and Environmental Change (5).
Basic concepts of ecology with emphasis on ecosystems and
populations and how human activities and attitudes relate to these basic concepts. May not be counted toward a major or a minor in the department of biological sciences. NSApplications Natural Science. Upon successful completion of this course, the student will be able to:
Apply ecological concepts to current topics of personal and societal relevance Analyze current research to develop and defend positions on environmental issues Collect, analyze, and interpret data to investigate ecological and environmental questions.
BIOL 305. Human Anatomy and Physiology for Health-
Related Majors I (5). The first quarter of a two-quarter study of the structure and function of the human body. Four hours of lecture and two hours
laboratory per week. Cannot be used within a Biology major. Prerequisites: EXSC 351 and EXSC 351LAB; or BIOL 220. Upon successful completion of this course, the student will be able to:
NOTE: This course is one of a two quarter sequence. Each course covers a different set of human organ systems, with similar learner outcomes. Identify and analyze detailed anatomical structures associated with the major human organ systems. Describe the detailed functioning (physiology) of all major organ system of the body.
Integrate the study of anatomy and physiology to gain a fuller understanding of human form and function.
Relate physical structure to biological function across all levels of organization. Frame the current science of form and function in the context of its history and its relationship to human development and health.
Demonstrate the dissection and laboratory skills necessary for the examination and study of
the major human organ systems.
Contribute productively to peer teams.
BIOL 306. Human Anatomy and Physiology for HealthRelated Majors II (5). The second quarter of a two-quarter study of the structure and function of the human body. Fours hours lecture and two hours laboratory per week. Cannot be used within a Biology major. Co- or prerequisite: BIOL 305. Upon successful completion of this course, the student will be able to:
NOTE: This course is one of a two quarter sequence. Each course covers a different set of human organ systems, with similar learner outcomes. Identify and analyze detailed anatomical structures associated with the major human organ systems. Describe the detailed functioning (physiology) of all major organ system of the body.
Integrate the study of anatomy and physiology to gain a fuller understanding of human form and function.
Relate physical structure to biological function across all levels of organization.
Frame the current science of form and function in the context of its history and its relationship to human development and health. Demonstrate the dissection and laboratory skills necessary for the examination and study of the major human organ systems. Contribute productively to peer teams.
BIOL 321. Genetics (5). A lecture and laboratory course in the basic principles of heredity
of plants and animals. Four hours lecture and two hours laboratory per week. Prerequisites: BIOL 183 or BIOL 220 and either BIOL 213 or CHEM 332 and CHEM 332LAB.

Upon successful completion of this course, the student will be able to:
Develop problem solving skills and ability to identify and clarify a problem, gather and evaluate information, consider alternatives, and improve problem solving effectiveness. Think critically about the scientific, ethical, and economic ramifications of genetic information and the role of genetics in modern society
Compare and contrast structure and function of DNA, genes, and chromosomes.
Analyze and evaluate data for Mendelian patterns of inheritance, heredity, and genetic extensions. Apply knowledge of cellular processes including cell cycle, mitosis, and meiosis to genetics.
Infer relationships between genotype and phenotype based on conceptual and mechanistic details of DNA replication, gene regulation, and gene expression
Use concepts of DNA
technology and analyze and evaluate its scientific and ethical application to science and society.
Determine how DNA mutation and repair and associated mechanisms are involved in loss of genetic control and disease.
Construct a scientific argument and defend an advocacy position.
Reflect on problem solving effectiveness and revise thinking process.
BIOL 322. Introductory
Microbiology (5). Introductory biology of microorganisms and viruses with applications to medicine, food science, industry, and agriculture. Intended for nutrition and allied health students. Three hours lecture and four hours laboratory per week. Biology majors are encouraged to take BIOL 323. May be counted toward a degree in the biology department in lieu of BIOL

323 , but cannot be counted toward a degree in the biology department if BIOL 323 is successfully completed. Prerequisites: BIOL 182 or BIOL 220.
Upon successful completion of this course, the student will be able to:
Microbial cell biology
Microbial cellular structure and function
Microbial growth and reproduction
Cellular energy production and metabolism
Structure and reproduction of infectious particles (viruses and prions)
Interactions and impact of microorganisms and humans
Microbial-human relationships Microbial pathogenicity mechanisms
Infectious agent transmission Antibiotics, antivirals, antibiotic resistance
Vaccines
Food Microbiology-production and control
Laboratory Skills
Use a bright field light
microscope to view and interpret slides, including
Correctly setting up and
focusing the microscope
Proper handling, cleaning, and
storage of the microscope
Correct use of all lenses
Recording microscopic observations
Properly prepare slides for microbiological examination, including
Preparing smears from solid
and liquid cultures
Performing Gram stains
Use appropriate
microbiological media and test systems, including
Isolating colonies and/or plaques
Maintaining pure cultures
Estimate the number of microbes in a sample using serial dilution techniques, including
Correctly choosing and using pipettes and pipetting devices Correctly spreading diluted samples for counting

Estimating appropriate dilutions
Extrapolating plate counts to
obtain the correct CFU or PFU
in the starting sample
Interpersonal and citizenry skills, including Working effectively in teams or groups so that the task, results and analysis are shared Effectively managing time and tasks allowing concurrent and/or overlapping tasks to be done simultaneously, by individuals and within a group
Integrating knowledge and making informed judgments about microbiology in everyday life
Employ proper microbiological lab safety protocols and aseptic technique
BIOL 323. Microbiology (5). Principles of microbiological practice, including isolation, cultivation, identification, physiology, evolution, and ecology. Two hours lecture and six hours laboratory per week.
Does not count toward any biology major if student has successfully completed BIOL 322. Prerequisites: BIOL 213 and either BIOL 183 or BIOL 220.

Upon successful completion of this course, the student will be able to: Microbiological
Knowledge
Microbial cell biology
Microbial cellular structure and function
Microbial growth and reproduction
Cellular energy production and metabolism
Structure and reproduction of infectious particles (viruses and prions)
Microbial genetics, evolution
and diversity
Inheritance of genetic
information
Information flow within a cell Exchange and acquisition of genetic information
Causes, consequences and uses of mutations
Evolution of microbial genetic and physiological diversity Microbial ecology

Interactions and impact of microorganisms and humans Microbial-human relationships Microbial pathogenicity mechanisms
Disease transmission
Antibiotics and chemotherapy
Genetic engineering
Biotechnology
Laboratory Skills
Use a bright field light
microscope to view and
interpret slides, including
Correctly setting up and
focusing the microscope
Proper handling, cleaning, and
storage of the microscope
Correct use of all lenses
Recording microscopic observations
Properly prepare slides for microbiological examination, including
Cleaning and disposing of slides
Preparing smears from solid and liquid cultures
Performing wet mount and/or
hanging drop preparations
Performing Gram stains
Properly use aseptic techniques
for the transfer and handling of
microorganisms and
instruments, including
Sterilizing and maintaining
sterility of transfer instruments
Performing aseptic transfer
Obtaining microbial samples
Use appropriate
microbiological media and test
systems, including
Isolating colonies and/or
plaques
Maintaining pure cultures
Using biochemical test media
Accurately recording
macroscopic observations
Estimate the number of
microbes in a sample using
serial dilution techniques, including
Correctly choosing and using
pipettes and pipetting devices
Correctly spreading diluted
samples for counting
Estimating appropriate
dilutions
Extrapolating plate counts to
obtain the correct CFU or PFU
in the starting sample

Use standard microbiology laboratory equipment correctly, including
Using the standard metric system for weights, lengths, diameters, and volumes
Lighting and adjusting a
laboratory burner
Using an incubator
Interpersonal and citizenry
skills, including
Working effectively in teams or groups so that the task, results and analysis are shared Effectively managing time and tasks allowing concurrent and/or overlapping tasks to be done simultaneously, by individuals and within a group
Integrating knowledge and making informed judgments
about microbiology in everyday life
Employ proper microbiological
lab safety protocols and aseptic technique
BIOL 341. Plant Taxonomy
(5). Classification of vascular plants, using local flora. Two hours lecture and six hours laboratory per week; the course includes field trips and individual field work.
Prerequisites: BIOL 182, BIOL
183 or BIOL 200.

## BIOL 343. Plant Anatomy

(5). A treatment of the fundamental facts and aspects of vascular plant anatomy. Plant tissues with special reference to their development, organization, and biological significance. Three hours lecture and four hours laboratory per week. Prerequisites: BIOL 182 or BIOL 183.
Upon successful completion of this course, the student will be able to:
Identify major cell and tissue types from vascular plants as visible using light microscopy. Describe functions of major cell and tissue types for vascular plants
Describe meristematic growth in plants
Differentiate between patterns of meristematic growth that occur in plants and growth patterns animals.

Identify plant meristmatic tissues in plants and describe tissues that develop from cells in those meristems. Characterize plant cell and tissue types and growth patterns in a vascular plant body
Use basic cell sectioning and
staining techniques to observe plant anatomical structures
BIOL 344. Dendrology (4). A
study of trees, their habits of growth, the characteristic forest areas of North America. Two hours lecture and four hours laboratory per week. A field course. Prerequisite: BIOL 183.

Upon successful completion of this course, the student will be able to:
Describe and quantify specific morphological features of woody plants.
Identify woody plant species by using taxonomic keys. Apply knowledge of tree anatomy and development to compare species' responses to the environment.
Measure species distribution and abundance in forests of the Pacific Northwest.
Evaluate and discuss scientific investigations of climate change and effects on local forest ecosystems.

## BIOL 351. General

Entomology (5). Insect biology, taxonomy, structure, and relationships to man. Two hours lecture and six hours laboratory or field work per week. Prerequisite: BIOL 183 or permission.
Upon successful completion of this course, the student will be able to:
Describe the anatomy, physiology, and ecology of insects.
Identify major families (and higher-level taxa) within the insects, either by sight or using a key.
Prepare a collection of properly mounted and identified insects. Present a short lecture on one particular group of insects, sharing this taxon's identifying
features and characteristics with the class.
BIOL 352. Parasitology (5).
Biological relations of animal parasite and host; structure, classification, and methods of diagnosis of parasitic protozoa, worms, and arthropods. Two hours lecture and six hours laboratory per week. Prerequisite: BIOL 183. Upon successful completion of this course, the student will be able to:
Demonstrate a broad understanding of the central facts and the experimental basis of Parasitology Demonstrate practical skills in parasitological techniques and identification.
Present information clearly in both written and oral form.
Use a computer to carry out data analysis and to prepare documents, including graphs, diagrams and presentations.
BIOL 353. Integrative
Anatomy (6). Vertebrate and human anatomy and embryology in an evolutionary context. Three hours lecture and six hours laboratory per week. Prerequisite: BIOL 183 or EXSC 350 and EXSC 350LAB.
Upon successful completion of this course, the student will be able to:
Integrate the study of anatomy, embryology, and evolution to gain a fuller understanding of vertebrate form and function. Identify and analyze detailed anatomical structures associated with the major vertebrate organ systems. Relate physical structure to biological function across all levels of organization.
Frame the current science of biology in the context of its history and its relationship to other disciplines.
Demonstrate the dissection skills necessary for the examination and study of the major vertebrate organ systems.
Contribute productively to peer teams.

BIOL 354. Developmental Biology (5). Embryonic development with an emphasis on the molecular mechanisms involved in fertilization, pattern formation, and cell differentiation. Three hours lecture and four hours laboratory per week. Prerequisites: CHEM 361 and BIOL 183.
Upon successful completion of this course, the student will be able to:
Describe the basic concepts of developmental biology including fertilization, pattern formation, cell differentiation and organogenesis
Compare and contrast stages of development in vertebrate and non-vertebrate organisms including the molecular signaling events involved. Design and perform experiments to examine the effect of environmental contaminants on early embryo development including data collection and analysis. Apply basic developmental concepts and interpret data presented in primary literature articles.
BIOL 355. Human Anatomy and Physiology I (5). The first quarter of a two-quarter study of the structure and function of the human body. Students should not take BIOL 355 unless they intend to take BIOL 356. Three hours lecture and four hours laboratory per week. A student cannot use BIOL 355/356 and BIOL 455 in the major. A student cannot receive credit for both BIOL 355 and BIOL 305. Prerequisites: BIOL 183. Upon successful completion of this course, the student will be able to:
NOTE: This course is one of a two quarter sequence. Each course covers a different set of human organ systems, with similar learner outcomes. Identify and analyze detailed anatomical structures associated with the major human organ systems (or a suitable mammalian surrogate
such as cats, etc. will be used to dissect /identify these structures.
Describe the detailed
functioning (physiology) of all
major organ system of the body.
Integrate the study of anatomy
and physiology to gain a fuller understanding of human form and function.
Demonstrate the dissection and laboratory skills necessary for the examination and study of the major human organ systems.
Relate physical structure to biological function across all levels of organization (from cellular to organismal levels).
BIOL 356. Human Anatomy and Physiology II (5). The second quarter of the two quarter study of the structure and function of the human body. Three hours lecture and four hours laboratory per week. A student cannot use BIOL 355/356 and BIOL 455 in the major. A student cannot receive credit for both BIOL 356 and BIOL 306. Co- or prerequisite: BIOL 355 .
Upon successful completion of this course, the student will be able to:
NOTE: This course is one of a two quarter sequence. Each course covers a different set of human organ systems, with similar learner outcomes. Identify and analyze detailed anatomical structures associated with the major human organ systems (or a suitable mammalian surrogate such as cats, etc. will be used to dissect /identify these structures.
Describe the detailed functioning (physiology) of all major organ system of the body.
Integrate the study of anatomy and physiology to gain a fuller understanding of human form and function.
Demonstrate the dissection and laboratory skills necessary for the examination and study of the major human organ systems.

Relate physical structure to biological function across all levels of organization (from cellular to organismal levels).
BIOL 360. General Ecology
(5). Interrelationships of organisms with their environment. Three hours lecture and four hours laboratory/field work/discussion per week. A weekend field trip may be required. Prerequisites: BIOL 183, and BIOL 213, and MATH 153 or a higher math course.
Upon successful completion of this course, the student will be able to:
Explain basic ecological connections between organisms, populations, communities and ecosystems Explain how physical environmental factors affect organisms and how organisms can affect the environment Describe the ecological relationships among of all life on earth and hypothesize on how human activities can affect these relationships Demonstrate knowledge on the basic structure and function of various ecosystems
Design an ecological study employing basic field data collection techniques Demonstrate proper use of instruments and equipment commonly used in ecological studies
Collect, analyze, and interpret ecological data

## BIOL 362. Biomes of the

Pacific Northwest (4). One-
week field trip to explore the
various biomes of Washington.
Emphasis on writing field
notes, observing and
identifying organisms and communities. Prerequisite: BIOL 181.
Upon successful completion of this course, the student will be able to:
Describe and compare the various biomes of the Pacific Northwest
Identify which biomes occur in Washington

Take field notes in correct format and with appropriate information
Use field guides or dichotomous keys to identify organisms
Identify connections among organisms inhabiting the
biomes visited
Describe physical and biological factors that result in the specific character of each biome visited
BIOL 371. Paleobiology (4).
Using fossils in the geologic record to explore evolution and extinction, ancient ecology and environments, and the geographical distribution of plants and animals. BIOL 371 and GEOL 371 are cross-listed courses; students may not receive credit for both. Prerequisite: BIOL 181 or GEOL 101 or GEOL 103 or GEOL 106 or GEOL 107 or GEOL 108.
Upon successful completion of this course, the student will be able to:
Identify, measure and describe common fossils and their morphology from examples Identify and differentiate methods of preservation of organisms in the rock record and distinguish biases of preservation.
Demonstrate how evolutionary processes, adaptation, and extinction relate to the history of life, diversity, and changing environments on Earth over geologic time.
Identify fossil content and rock type to interpret depositional environments and ecosystems. Interpret and construct paleogeographic maps and use them to hypothesize and assess the distribution of fossil and modern organisms
Relate paleobiological data to
(1) major events and trends in the evolutionary history of plants and animals and (2) major global events and trends (tectonic, paleogeographic, paleoclimate)
Evaluate the adequacy of the fossil record for tackling a particular question, and assess
the quality of hypotheses based on (limited) fossil data
Demonstrate an understanding of the relationship between processes and the timescales over which they operate Accurately apply and differentiate concepts of correlation and causality when interpreting data Use mathematical concepts and tools to analyze, evaluate, and present numerical data Practice effective oral, written, and graphic communication techniques
BIOL 377. Regional Natural History (2). Classroom study of the natural history of a selected region as preparation for a one- to two-week field trip. Emphasis will be on developing background skills to undertake a field exploration over the quarter (winter, spring, summer) break. Subtitles will identify the selected geological region (e.g. Baja California Natural History). BIOL 377 and GEOL 377 are cross-listed courses, students may not receive credit for both. By permission. May be repeated for credit under a different subtitle (region).
BIOL 396. Individual Study (1-6). May be repeated if subject is different.
BIOL 397. Honors (1-12). Prerequisite: admission to department honors program.
BIOL 398. Special Topics (16).

BIOL 399. Seminar (1-5).
May be repeated if subject is different.
BIOL 405. Current Topics in
Biology (2-5). An in-depth analysis of a specific topic within the field of biological science. Current literature and research will be reviewed, analyzed, and discussed. May be repeated up to 10 credits. Prerequisite: BIOL 213. Upon successful completion of this course, the student will be able to:
Read and comprehend scientific literature on a variety of topics in contemporary biological research.

Demonstrate an ability to synthesize ideas on a variety of topics in contemporary biological research. Identify and explain current research methods on a variety of topics in contemporary biological research.
BIOL 413. Advanced
Biostatistics (5). Visualization and analysis of complex biological data-sets. Computer laboratory exercises will utilize $R$, a free and powerful software environment for statistical computing and graphics. BIOL 413 and BIOL 513 are layered courses; students may not receive credit for both. Three hours lecture and two hours laboratory per week. Prerequisites: BIOL 213 or permission of instructor. Upon successful completion of this course, the student will be able to:
Design valid, efficient, and statistically powerful experiments (413/513) Visualize complex data sets and identify patterns of biological importance (413/513)
Explain the underlying assumptions of common statistical tests and evaluate the potential consequences of violating these assumptions (413/513)
Select and validate appropriate methods for the analysis of complex biological data sets (413/513)
Analyze complex biological data sets, interpret the output, draw valid conclusions, and communicate findings
(413/513)
BIOL 420. Environmental
Microbiology (5). Ecology of microorganisms in marine, fresh-water and soil environments. Three hours
lecture and four hours laboratory per week. Prerequisites: BIOL 323 and CHEM 362.
BIOL 421. General Virology
(5). Interrelationship between animal, plant, and bacterial viruses and their hosts, with emphasis on the animal
viruses. Five hours lecture per week. Prerequisites: BIOL 430 or BIOL 321 or CHEM 432.
Upon successful completion of this course, the student will be able to:
Critically analyze primary
literature pertaining to viruses and their interaction with host organisms and individual host cells
Diagram replication strategies for the major classes of viruses Discuss various methods for culturing viruses
Explain different strategies for viral gene expression, infection patterns and pathogenesis Explain the differences between different classes of viruses, and identify viruses associated with biocontrol and other beneficial technologies Discuss various methods used to study viral gene expression, infection patterns and pathogenesis
Identify reliable sources of information about epidemics, emerging viruses, and vaccination programs Describe prevention and treatment strategies associated with various viral infections
BIOL 422. Immunology (5). Nature of the immune response, disease preventing and producing mechanisms and laboratory applications. Five hours lecture per week. Prerequisites: BIOL 183 or BIOL 220 and CHEM 361.
BIOL 423. Techniques in Immunology and Virology
(5). A practical course in dealing with the routine techniques used in diagnostic and experimental immunology and virology. Three hours lecture and four hours laboratory per week.
Prerequisite: BIOL 421 or BIOL 422.
Upon successful completion of this course, the student will be able to:
Develop problem solving skills and ability to identify and clarify a problem, gather and evaluate information, consider alternatives, and improve problem solving effectiveness.

Demonstrate the ability to properly keep a laboratory notebook.
Analyze and evaluate data from immunological or virology assays. Apply knowledge of immunological processes including in setting up research projects.
Develop scientific ideas and
support it using available data.
Reflect on problem solving
effectiveness and revise
thinking process.

## BIOL 425. Molecular

Biotechnology (5). The
practice and theory of techniques used in molecular biology. Two hours lecture and six hours laboratory per week.
Prerequisite: BIOL 321.
BIOL 426. Medical
Microbiology (3). An
introduction to medical microbiology emphasizing the biology of pathogenic bacteria, their relation to infectious diseases and the isolation and identification of specific disease agents. Three lectures per week. Prerequisite: BIOL 323.
BIOL 427. Biotechnology for
Teachers (5). This course will help pre-service teachers develop the necessary skills to construct and perform biological experiments using contemporary biotechnology in the context of educational theory and application. May be repeated for credit.
Prerequisite: BIOL 321.
Upon successful completion of this course, the student will be able to:
Contemplate modern molecular biotechnology theory
Differentiate the importance of
different macromolecules to cellular life and development and how this knowledge can be used in biotechnology
Relate molecular
biotechnology to everyday life
Discuss moral, ethical, and
economic aspects of controversial biotechnology issues
Perform basic biotechnology laboratory exercises

BIOL 428. Nutrigenomics
(5). The interrelationships of genetic variation, nutrition, and diet-related diseases. Topics to be covered include techniques used in the field, disease susceptibility alleles, diet and gene expression, personalized diets, and case studies. BIOL 428 and BIOL 528 is a layered course; students may not receive credit for both. Course will not have an established scheduling pattern.
Prerequisite: BIOL 321 or CHEM 432 or instructor permission.
Upon successful completion of this course, the student will be able to:
Recommend a diet given genomic data
Identify SNPs that respond to diet
Calculate a risk profile for an individual given data
Critique scientific literature in nutrigenomics
Give and explain examples of variation in alleles, gene regulation, and epigenetic tags that relate to diet.
BIOL 430. Cell Biology (5). Analysis of cell organization and the processes governing cell function and behavior. Four hours lecture and three hours laboratory per week. Prerequisites: CHEM 361, CHEM 361LAB, and BIOL 182.
Upon successful completion of this course, the student will be able to:
Integrate principles of chemistry to explain the structure and organization of biochemicals/macromolecules within a cell
Apply principles of chemistry and physics to explain how energy transfer and utilization maintain life and vital cellular processes.
Demonstrate proficiency in microscopic and cell biology techniques.
Describe how cells regulate genetic information to control cell type and behavior

Explain and illustrate how cells respond and communicate with their environment
BIOL 431. The Cell Biology
of Cancer (3). The study of the biology of cancer with an emphasis on dysregulation of cellular pathways responsible for cancer development and the effectiveness of current therapuetic drugs on treatment. Three hours lecture per week. Prerequisite: BIOL 430 or CHEM 431.
Upon successful completion of this course, the student will be able to:
Identify the cellular pathways and proteins responsible for cancer development. Describe the role of genetic instability in the evolution of cancer cells.
Evaluate the biology of therapeutic drugs and their effectiveness in the treatment of cancer.
Apply cell biology concepts and interpret data presented in primary literature articles in cancer biology.
BIOL 435. Cell Analysis by Flow Cytometry (4). Acquire flow cytometry skills (fluorochrome selection, sample preparation, data acquisition, data analysis, data interpretation). Design and conduct research projects requiring in-depth analysis of physical and chemical characteristics of cells acquired by flow cytometry. Discuss flow cytometry applications in various scientific fields. BIOL 435 and BIOL 535 are layered courses; students may not receive credit for both. Prerequisites: BIOL 321 and CHEM 361.
Upon successful completion of this course, the student will be able to:
Identify the appropriate fluorochrome (s) and describe the steps involved in sample preparation and analysis by flow cytometry. Identify and apply the appropriate cell analysis methods to analyze previously acquired flow cytometry data.

Interpret basic flow cytometry data and report results of cell analysis by flow cytometry Design research projects requiring flow cytometry among research tools, acquire, discuss and report data including those acquired by flow cytometry.

## BIOL 441. Plant Physiology

(5). A critical study of the physiological processes of plants including water relations, photosynthesis, mineral assimilation, and responses to the environment. Prerequisites: BIOL 183 and BIOL 213 and CHEM 361. Upon successful completion of this course, the student will be able to:
Students will be able to describe plant water relations and transport processes and predict movement of water in a biological system Students will be able to explain how light energy is converted, stored and transported as chemical energy through photosynthetic CO 2 assimilation processes for a variety of plant species. Students will be able to describe how plants respond to environmental and internal signals and compare and contrast these responses to those of animals Students will be able to describe cellular growth and fundamental biochemical processes for plant cells Students will be able to describe how plants assimilate minerals and identify the significance of these processes to other organisms including humans
Students will be able to carry out an investigative experiment in plant physiology, compile and analyze their data and communicate their results through a scientific paper
BIOL 443. Mycology (5). The biology, morphology, and economic importance of the major groups of fungi including the slime molds. Three hours lecture and four
hours laboratory per week. Prerequisite: BIOL 183.
Upon successful completion of this course, the student will be able to:
Utilize appropriate techniques for the isolation and laboratory culture of fungi including all appropriate safety measures. Design, carry out, and analyze and evaluate data from a research project on the biology, growth, or genetics of the fungi (or fungus like protists). Utilize appropriate terminology to describe the morphology, anatomy, and ecology of major fungal and pseudofungal groups.
Identify members of the major groups of fungi and pseudofungi and describe their characteristics and ecological importance.
Contrast the traditional classification system with the modern phylogenetic outline of the fungi and pseudofungi.
Evaluate factors which influence the growth, metabolism, and ecology of the fungi and pseudofungi.
Describe the economic importance of various fungi and pseudofungi.
BIOL 444. Algae and
Bryophytes (5). Study of the occurrence, evolution, physiology, and ecology of fresh-water and marine algae and non-vascular plants with emphasis on those in the Pacific Northwest.
Prerequisite: BIOL 183.
Upon successful completion of this course, the student will be able to:
Describe evolutionary relationships among groups of algae and bryophytes Correctly identify groups of algae and bryophytes from field-collected samples Describe biochemical and metabolic processes for groups of algae and bryophytes Predict the occurrence of algal and bryophyte groups and species in the field
Predict consequences of
disturbance of algal or
bryophyte populations within a natural ecosystem
Describe characteristics for, illustrate using diagrams and sketches, and describe
ecological roles for algae and bryophytes
Describe the ecological and economic value of algae and bryophytes in our world
BIOL 445. Field Mycology
(5). Stresses taxonomy, morphology, and ecology of mushrooms and related forms with emphasis on Northwest flora. Offered fall quarter only. Prerequisite: BIOL 183. Upon successful completion of this course, the student will be able to:
Utilize appropriate techinques for the field collection, preservation, and herbarium deposition of macrofungi. Utilize taxonomic resources to identify fungi representing the major groups of macrofungi. Utilize appropriate terminology to describe the morphology, anatomy, and ecology of macrofungi.
Design, carry out, analyze and evlauate a research project on the biodiversity or ecology of the macrofungi.
Identify the major groups of macrofungi and describe their characteristics and ecological importance.
Contrast the traditional
classification system with the modern phylogenetic outline of the macrofungi.
BIOL 450. Ichthyology (4). An introduction to the biology, taxonomy, and distribution of modern fishes with special reference to the Pacific Northwest. Three hours lecture and two hours laboratory or field work per week Prerequisites: BIOL 183 and BIOL 213.
BIOL 451. Herpetology (4).
An introduction to biology, taxonomy, and distribution of modern amphibians and reptiles with special reference to the Pacific Northwest. Two hours lecture and four hours laboratory or field studies per week. Prerequisite: BIOL 183.

BIOL 452. Ornithology (4)
Study of birds with special emphasis on anatomic and behavioral adaptations. Three hours lecture and two hours laboratory or field study per week. Prerequisite: BIOL 183. Upon successful completion of this course, the student will be able to:
Students will be able to make accurate, organized observations of behavior, morphology, distribution, abundance, and habitat associations of avian fauna in the field.
Students will be able to identify local avifauna. Using museum skins, students will be able identify species and evolutionary relationships. Students will also be able to describe relationships between form and function, and articulate the role of museum collections in avian biology. Students will be able to discuss and critique peer-review papers in avian ecology, evolution and behavior.
BIOL 453. Mammalogy (5).
Evolution, taxonomy, and ecology of mammals with laboratory emphasis on Pacific Northwest mammals. Three hours lecture and four hours laboratory per week.
Prerequisite: BIOL 183.
BIOL 454. Histology (3). An introduction to the basic tissues of vertebrates, including humans. Three hours of lecture per week. Prerequisites: BIOL 353 or BIOL 356 or EXSC 351 and EXSC 351LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the four basic tissue types found in the vertebrate (including human) body.
Identify detailed histological structures associated with the major vertebrate organ systems. Relate physical structure to biological function across all levels of organization.
BIOL 455. Integrative Animal Physiology (5). The
comparative study of animal physiology, with a broad approach crossing organizational levels. Three hours lecture and four hours laboratory per week. A student cannot use BIOL 355/356 and BIOL 455 in the major. Prerequisites: BIOL 183 and BIOL 213.
Upon successful completion of this course, the student will be able to:
Propose, execute, and present a scientific experiment in the field of physiology. Perform scientific techniques in the field of physiology. Critically analyze published scientific work.
Describe physiological functioning of various systems in animals.
BIOL 457. Fundamentals of Neuroscience (5). The study of integrated neuroscience from the molecular to the systems
level. Included is examination of neural plasticity in the developing and adult brain as well as dysfunctions associated with disease states.
Prerequisites: BIOL 183 and either CHEM 431 or BIOL 430.

Upon successful completion of this course, the student will be able to:
Apply principles of cell biology to explain the structure and function, and cellular components of synaptic transmission.
Explain how sensory -information is processed and integrated into behavioral responses.
Explain normal cellular events in synaptic plasticity that lead to learning and memory. And relate how those events are altered in neurodegenerative diseases.
Relate developmental events of axon growth and synapse formation to the pattern of adult connections among various systems.
Develop skills in reading primary literature in the field of neuroscience

BIOL 459. Winter Biology
(4). A field and laboratory course exploring the ecology and physiology of organisms in winter. Activities will include laboratory work, field trips, and an overnight camping trip. Prerequisites: BIOL 183 and BIOL 213.
Upon successful completion of this course, the student will be able to:
Describe why winters are cold, and how snow forms and changes once on the ground. Build and comfortably use snow shelters.
Describe basic concepts of how cold affects plants and animals. Formulate a scientific question related to winter biology, and answer the question through creation of their own experiment.
BIOL 461. Community
Ecology (3). Principles of the structure and function of ecological communities. Three hours lecture/discussion per week. Prerequisite: BIOL 360. Upon successful completion of this course, the student will be able to:
Evaluate general patterns and processes of community structure and dynamics, including indicators of diversity, connectance, equilibrium, and succession Identify direct and indirect interactions among the species in a community
Compare and evaluate study design, methods, and data analysis techniques for community ecology research Apply principles of community ecology toward solutions to ecological problems such as declining biodiversity, establishment of exotics, biological control
BIOL 462. Wildlife and
Fisheries Ecology (5).
Ecological principles of wildlife and fish populations and communities as they relate to management theory and practice in the Pacific Northwest. Three hours lecture/discussion and four hours laboratory/field work per
week. Weekend field trips may be required. Prerequisite:
BIOL 360.
BIOL 463. Limnology (5).
Chemical, physical, and biological characteristics of inland waters. Three hours lecture and four hours laboratory per week. Prerequisite: BIOL 360. Upon successful completion of this course, the student will be able to: Describe the structure and function of freshwater aquatic systems Explain the ecological interactions among aquatic organisms Analyze and interpret physical, chemical and biological data collected from lakes and rivers Conduct a basic assessment of the physical structure and ecological status of rivers and lakes using a variety of standard sampling equipment and procedures
Collect and identify samples of aquatic organisms common to inland waters of the Pacific Northwest
Evaluate technical reports and manuscripts related to aquatic ecology
BIOL 464. Terrestrial Plant
Ecology (5). The ecological relationships of plant species and plant communities. Three hours lecture and either four hours laboratory. Weekend field trips may be required. Prerequisite: BIOL 360 . Upon successful completion of this course, the student will be able to:
Describe plant physiological ecology concepts and methods Utilize plant population growth and reproduction models. Describe community and landscape ecology concepts and methods.
Choose correct methods to measure attributes of plant communities
Apply correct statistical tests to ecological data Apply simple multivariate methods of analysis to large vegetation data sets
Be able to search for, cite, and interpret relevant primary
literature on plant ecology topics
Utilize spreadsheet software to perform complex calculations on large data sets
Be able to present research results to a group of biology student peers
BIOL 465. Biology of Animal
Behavior (4). Three lectures
and two hours of laboratory a
week. Prerequisites: BIOL 213 or PSY 362.
BIOL 466. Conservation
Biology (5). An introduction to the theory and practice of conservation biology, with emphasis on case studies. Two hours lecture, one hour discussion, and four hours lab or field study per week. Weekend field trips may be required. BIOL 466 and BIOL 566 are equivalent courses; students may not receive credit for both. Prerequisite:
BIOL 360.
BIOL 467. Biological Field
Techniques (5). Intensive, field-based experience in techniques used by field biologists to sample organisms and their environments, and analyze data collected in the field.
Upon successful completion of this course, the student will be able to:
Describe various methods for
sampling (collecting and
quantifying numbers of)
aquatic and terrestrial
organisms
Choose an appropriate
sampling technique to answer a
biological question
Perform several different
biological sampling methods in
terrestrial and aquatic
environments
Analyze and interpret data
from field sampling
Discuss sources of error and
bias in various sampling methods
Demonstrate a professional, inquiring attitude toward learning, applying, and evaluating field techniques
BIOL 470. Mechanisms of
Evolution (5). Darwinian
evolution and the modern
synthesis. Prerequisite: BIOL 321.

Upon successful completion of this course, the student will be able to:
Explain evolutionary theory in terms of the mechanisms of evolution and describe evolutionary influence across all levels of biological organization.
Quantify changes in the genetic composition of populations that result from evolution. Compare different mechanisms of speciation and various ways that biologists define species. Explain how macroevolutionary changes occur across evolutionary time. Apply evolutionary principles, hypotheses, and investigative methods to test a wide range of biological phenomena.
Analyze, interpret, and evaluate current evolutionary research.
BIOL 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit.
Grade will either be S or U ,
BIOL 491. Workshop (1-6).
May be repeated for credit.
BIOL 492. Laboratory
Experience in Teaching
Biological Sciences (2).
Experience in planning, managing, and teaching in a laboratory setting. May be repeated for credit.

## BIOL 493. Biological Field <br> Practicum (Put on reserve

9/16/16) (1-15). Individual or group off-campus experience in the field study of biological phenomena. May be repeated for credit. (Put on reserve 9/16/16. Last taught in 2012. Will go inactive $8 / 24 / 19$.)
BIOL 495. Research (1-6). Laboratory research experience. May be repeated up to 6 credits.

Upon successful completion of this course, the student will be able to:
Design research project in
biological sciences
Perform experiments Collect and analyze data for research projects
Present research is written or oral form
BIOL 496. Individual Study (1-6).
BIOL 497. Honors Thesis (1-
5). Either this course or BIOL 499S, Senior Seminar, is required in all baccalaureate programs of the biology department. Prerequisite: admission to Departmental Honors Program.
BIOL 498. Special Topics (16).

BIOL 499. Seminar (1-5). BIOL 377LAB. Regional Natural History (3). Special fees required. One- to twoweek field trip to explore biological and physical patterns and processes in selected regions of North America. Emphasis will be on recording field observations, keeping a field journal, field study techniques, and performing investigations chosen and developed by student participants. Subtitles will identify the region studied. BIOL 377LAB and GEOL 377LAB are cross-listed courses, students may not receive credit for both. May be repeated for credit.
BIOL 426LAB. Medical Microbiology Laboratory (2). Prerequisite: BIOL 323. Coprerequisite: BIOL 426.

## BIOL 431LAB. The Cell

 Biology of Cancer Lab (2). This course will allow students to perform advanced laboratory techniques in biochemistry, cell and molecular biology related to the study and diagnosing of cancer. Co- or prerequisite: BIOL 431.Upon successful completion of this course, the student will be able to:
Use quantitate reasoning to analyze and interpret data

Perform and evaluate experiments using molecular and cell techniques.
Design and perform research projects relating to cancer biology.
Analyze large data sets.
BIOL 461LAB. Community
Ecology Laboratory (2).
Laboratory and field study of the structure and function of ecological communities. Four hours of laboratory/field work per week. Weekend field trips may be required. Co- or prerequisite: BIOL 461 Upon successful completion of this course, the student will be able to:
Design and implement an experiment or observational study of community ecology, using appropriate scientific methodology.
Use a variety of data summary and analysis techniques to analyze data sets in community ecology.
Recognize and compare
different types of communities in nature, and the difficulties in defining community
boundaries
BIOL 499S. Senior Seminar
(1). Biological sciences: reading, writing, and speaking. Either this course or BIOL 497, Honors Thesis, is required in all baccalaureate programs of the biology department. Prerequisite: senior standing.
BME 146. Basic Accounting
(5). Basic introductory course to accounting concepts. May not be taken for college credit if any other college accounting course or courses have been completed. May be audited. Formerly BSED 146, students may not receive credit for both.
BME 296. Individual Study
(1-6). Formerly BSED 296 students may not receive credit for both.
BME 298. Special Topics (16). Formerly BSED 298, students may not receive credit for both.
BME 299. Seminar (1-5).
Formerly BSED 299, students
may not receive credit for both.

BME 316. Educational Technology for Business and Marketing (3). Students will explore a variety of concepts and resources related to the appropriate and effective integration of technology/media in school settings. Formerly BSED 316, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: CS 101 or IT 101 and full admission to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Utilize web and multi-media applications.
Identify and access resources for resolving technology issues in the classroom and personal workspace.
Apply programming languages.
Articulate how business functions relate to data and information, input, storage, manipulation, and presentation. Select and apply information systems across the curriculum. Analyze, design, and develop information systems using appropriate tools.
Identify the technical elements of e-commerce.
BME 346. Basic Accounting for Business and Marketing Education (5). For business and marketing education majors to become proficient in secondary level accounting course subject matter. Prerequisite: CTE 310 and conditional admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Complete the various steps of the accounting cycle and explain the purpose of each step.
Determine the value of assets, liabilities, and owner's equity according to generally accepted accounting principles explaining when and why they are used.

Prepare, interpret, and analyze financial statements using manual and computerized systems for service, merchandising, and manufacturing businesses. Demonstrate leadership and teamwork abilities within a group setting.
Demonstrate acceptable methods for teaching accounting.
Develop the ability to monitor student progress.
Demonstrate the ability to maintain accurate student records.

## BME 347. Marketing

 Curriculum for Secondary Education (4). This course prepares Business and Marketing Education majors for the curricular materials they will teach in secondary marketing education programs.Prerequisite: admission to the business and marketing education major.
Upon successful completion of this course, the student will be able to:
Construct learning materials related to secondary level marketing education courses.
Construct frameworks for secondary level marketing education courses.
Justify the inclusion of a
Career and Technical
Education Student
Organization as part of a secondary marketing education program.
Outline the sequence and content of a typical secondary level marketing education program.

## BME 396. Individual Study

(1-6). May be repeated if subject is different.
BME 397. Honors (1-12).
Prerequisite: admission to department honors program.
BME 398. Special Topics (1-
6). May be repeated if subject is different.
BME 399. Seminar (1-5).
May be repeated if subject is different.
BME 445. Technology for Business and Marketing
Education (4). Skill
development in current technologies being applied in secondary business and marketing programs. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Examine educational applications that are currently being used to administer secondary business and marketing education. (Examples may include Google Classroom, collaborative applications, communication applications, and online gradebooks.)
Identify appropriate uses of educational applications for administering secondary business and marketing education programs. Design administrative educational applications that can be used professionally. Prepare to accomplish industry certifications for administrative educational applications. (Example: Google Certified Educator Levels 1 \& 2) Examine software and online applications that are currently being taught in secondary business and marketing education curricula. (Examples may include Google Docs and Adobe Creative Cloud.) Demonstrate proficient skills in software and online applications that are currently being applied in secondary business and marketing education technology curricula. Prepare curricular materials that are appropriate for use in a secondary business and marketing education technology course.
BME 450. Curriculum Development for Business and Marketing Education
(4). Curriculum development for business and marketing education. Develop and design curricula based on business and industry standards and accepted current pedagogical and learning standards. Prerequisite: full admission to
the major and the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Develop curriculum based on business/industry standards as approved by local advisory committee
Design and implement program scope, sequence and assessment which enables students to develop marketable job skills
Demonstrate ability to write unit and lesson plans incorporating a variety of instructional strategies, and all aspects of career and technical program approval
Revise curriculum based on
occupational changes Promote development of students' self-awareness and aptitudes, confidence and character and how these relate to leadership and career pathways
Develop student initiative and teamwork skills
Encourage students to explore nontraditional career roles Identify the impact of diversity and equity issues on student learning
Design or adapt curriculum, technologies, and instructional strategies which address the diverse needs of students including special populations Collaborate with business and labor partners to infuse workplace standards and practice's into curriculum Publicize to students the program content and benefits Connect school experiences to workplace
Develop awareness of professional dispositions and employability skills outlined in SCANS
Identify and describe topics, course content, scope and sequence for business administration courses within a pathway
Demonstrate knowledge of or experience with related business and marketing organizations and industry certification

Utilize career resources to develop an information base that includes global occupational opportunities Demonstrate ability to apply knowledge gained from individual assessment to a comprehensive set of goals and an individual career plan Relate the importance of lifelong learning to career success
Design and implement program rationale, scope, sequence and assessment which enables students to develop marketable competencies Develop student initiative, teamwork skills, and projectbased learning . Identify stages of student career development including, but not limited to postsecondary opportunities and a 13th year plan
Accept and encourage students in nontraditional career roles Provide opportunities for students to productively integrate career and academic disciplines
Adjust curriculum to information received from students and employer evaluations
Access and use appropriate state agreements and contracts for work-based learning Adhere to on-site visitation training and employee evaluation criteria and requirements
BME 451. Methods and Materials for Teaching Information Technology (3).
Methods and materials for teaching Information Technology curricula. Course will not have an established scheduling pattern. Prerequisite: full admission to the major (Business and Marketing Education) and the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Align CTE student learning activities to state learning goals and the EALRS and GLES

Implement instructional strategies which focus students' achievements of benchmarks in related essential academic learning requirements (EALRs), grade level expectations (GLEs) and achievement of Goals $3 \& 4$ Align career-technical learning assessment with the state learning goals and the essential academic learning requirements (EALRs) and GLEs
Use instructional strategies and resources that incorporate current technology of business/industry Use instructional strategies that develop students' skills for making career decisions Use instructional strategies that develop student employability skills
Use instructional strategies that develop students' lifelong learning and goal setting related to entry, transition, and continuation in the educational process and in the workplace Develop effective assessment methods which may involve student, family, employer, and community
Use variety of assessment methods including portfolios and business/industry standard assessment tools to measure student learning and development Model positive business/industry-appropriate workplace practices Demonstrate business/industry appropriate technology skills
Publicize program content and benefits to family and community
Determine and implement effective and safe layout of classroom and/or lab facilities that provide learning opportunities for all Identify and apply strategies (including individualized instruction) needed to instruct special populations; special needs, disabled, gifted, ethnic, and culturally diverse learners Demonstrate ability to assess personal strengths and weaknesses as they relate to
career exploration and development
Relate work ethic, workplace relations, workplace diversity and workplace communication skills to career development and employability skills Demonstrate ability to foster teamwork and project-based learning
Recognize methods and opportunities for integrating school-based enterprise and/or simulations across the business administration curriculum Demonstrate ability to implement school-based enterprise and/or simulations Encourage teamwork and project-based learning Develop strategies to make an effective transition from school-to-work Foster student awareness of self and aptitudes, and development of confidence and character and how these relate to leadership and career pathways
Provide activities to connect
school experiences to
workplace and reinforce
school-based learning
Discuss with class and individual students results and comments on employer evaluations
Work with employers to assess and improve student workbased learning experiences Foster appropriate communication between workbased learning stakeholders Prepare students to deal with equity and diversity
Appropriately place students in work based learning according to career interest and aptitude Secure training stations for work experience Assist state approved student leadership organization members or other state approved student leadership organization members in developing and financing a yearly program of activities
BME 452. Methods and Materials for Teaching Basic Business and Marketing (3).
Methods and materials for teaching basic business
curricula. Course will not have an established scheduling pattern. Prerequisite: full admission to the major (Business and Marketing Education) and the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Align CTE student learning activities to state learning goals and the EALRS and GLES Implement instructional strategies which focus students' achievements of benchmarks in related essential academic learning requirements
(EALRs), grade level expectations (GLEs) and achievement of Goals 3 \& 4
Align career-technical learning assessment with the state learning goals and the essential academic learning requirements (EALRs) and

## GLEs

Demonstrate ability to write unit and lesson plans incorporating a variety of instructional strategies, and all aspects of career and technical program approval
Use instructional strategies and resources that incorporate current technology of business/industry
Use instructional strategies that develop students' skills for making career decisions Use instructional strategies that develop student employability skills
Use instructional strategies that develop students' lifelong
learning and goal setting related to entry, transition, and continuation in the educational process and in the workplace Develop effective assessment methods which may involve student, family, employer, and community
Use variety of assessment methods including portfolios and business/industry standard assessment tools to measure student learning and development Model positive business/industry-appropriate workplace practices

Demonstrate business/industry appropriate technology skills Identify and apply strategies (including individualized instruction) needed to instruct special populations; special needs, disabled, gifted, ethnic, and culturally diverse learners Demonstrate ability to assess personal strengths and weaknesses as they relate to career exploration and development
Relate work ethic, workplace relations, workplace diversity and workplace communication skills to career development and employability skills Demonstrate ability to foster teamwork and project-based learning
Recognize methods and opportunities for integrating school-based enterprise and/or simulations across the business administration curriculum Demonstrate ability to implement school-based enterprise and/or simulations Encourage teamwork and project-based learning
Develop strategies to make an effective transition from
school-to-work
Foster student awareness of self and aptitudes, and development of confidence and character and how these relate to leadership and career pathways
Provide activities to connect school experiences to workplace and reinforce school-based learning Discuss with class and individual students results and comments on employer evaluations
Foster appropriate communication between workbased learning stakeholders Prepare students to deal with equity and diversity
Appropriately place students in work based learning according to career interest and aptitude Secure training stations for work experience Assist state approved student leadership organization members or other state approved student leadership
organization members in developing and financing a yearly program of activities Demonstrate basic business management concepts and principles
Explain how activities such as gross domestic product, unemployment, and inflation affect business management decisions
BME 492. Practicum (5-15).
Grade will either be S or U .
Formerly BSED 492, students may not receive credit for both.
Prerequisite: permission of department chair.
BME 496. Individual Study
(1-6). May be repeated if subject is different.
BME 497. Honors (1-12).
Prerequisite: admission to department honors program.
BME 498. Special Topics (1-
6). May be repeated if subject is different.
BME 499. Seminar (1-5). May be repeated if subject is different.

## BME 493A. Undergraduate

## Research Practicum (1-3).

Conduct research under direct supervision of a professor with specific learning agreement required. Department requirements must be met. ADMG, IT, and RMT 493A are equivalent courses; students may not receive credit for more than one. May be repeated for credit. Grade will either be S or U . Formerly BSED 493A, students may not receive credit for both.
BUS 102. Business Computer
Skills (4). This course will develop practical computer skills needed to evaluate and help solve business problems. Students will learn how to use software commonly used in businesses to access, organize and analyze information and present it professionally in presentations and reports.
Basic Skills 6 - Computer Fundamentals.
Upon successful completion of this course, the student will be able to:
Use appropriate search tools to extract information and data
from commonly used online business databases. (e,g, Compustat)
Create spreadsheets to organize and analyze data to support business decisions. Use appropriate software to develop effective charts and tables to communicate business data and business processes. Develop professional looking business reports and presentations, incorporating graphics and charts.
BUS 110. Professional Development 1 (1). This course is designed to assist students with transition into College of Business and guide them through their major exploration and career planning processes. Admittance to a business major. Prerequisite: UNIV 101. Upon successful completion of this course, the student will be able to:
Research career interests, industry profiles, and explore suitable educational and career paths.
Initiate professional network and relationship building Demonstrate professional etiquette.
BUS 198. Special Topics (1-
6). May be repeated for credit. Upon successful completion of this course, the student will be able to:
Identify and understand the pre-admission requirements into the College of Business majors.
Identify and understand the graduation requirements of the College of Business through catalog and Faculty presentations.
Understand the many nonclassroom opportunities for growth and leadership present with the College of Business. Recognize the many nonclassroom opportunities and resources present with CWU.

## BUS 221. Introductory

 Business Statistics (5). Introduction to inferential business statistics. Using probability distributions and information from samples forbusiness decisions
Prerequisite: ECON 130 or MATH 130 or higher with a minimum grade of C - or higher.
BUS 241. Legal Environment of Business (5). An
introduction to legal reasoning, ethics in business, the law of contracts, torts, agency, sales, bailments, and personal property. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Identify various sources of legal rules, statutes, consitutions and common law, describing the political, social and cultural influences that affect the institutions that develop and interpret them in the legal system.
Apply a model of ethical reasoning to derive logical decision making to ethical questions in the context of hypothethical business problems.
Define the role of the three branches of government, understand the federal and state court system and develop knowledge of the US Constitution. Recognize types of property interests, acceptable and unacceptable employment practices under federal and state law, identify torts, crimes and when contracts are valid, voidable and void under both common law and the Uniform Commercial code.
BUS 298. Special Topics (16).

BUS 299. Seminar (1-5). May
be repeated if subject is different.
BUS 301. Contemporary
Approaches to Personal and
Professional Development
(3). Address lifetime career development and the tools and resources to plan and manage transitions. Includes selfassessment, company and industry research, self branding
and promotion, networking, interviewing and the hiring process. Course will be offered every year (Fall, Winter and Spring).
Upon successful completion of this course, the student will be able to:
Discuss the various competencies in a typical business ecosystem and how your future role may relate. Demonstrate capability to research and discuss current business issues and events. Create and maintain your professional portfolio and other elements of your professional presence.
Demonstrate an ability to give/receive feedback to peers in a productive and professional manner. Written and verbal.
Prepare a future facing professional development plan.
BUS 310. Professional
Development 2 (1). This course is designed to assist students with transition into the professional business environment and provide them with the skills to implement effective career search strategies. May be repeated once. Grade will be S or U . Prerequisites: UNIV 101 and BUS 110 or MGT 200 or BUS 301.

Upon successful completion of this course, the student will be able to:
Develop and implement career search (e.g., internship, first professional job) plans. Demonstrate successful networking and interviewing skills.
Acquire industry knowledge and experience.
Integrate and apply professional development knowledge and skills to personal career plan.
BUS 311. Business Epistemology (3). This course introduces the value of evidence-based research in business theory and practice in making successful choices in an uncertain and complex world. Course will be offered
every year (Fall, Winter, Spring, Summer). Prerequisites: BUS 221, ECON
201, MGT 380, AND MKT 360.

Upon successful completion of this course, the student will be able to:
Explain the benefits of evidence-based research in business
Describe the importance of theory in business research Summarize the steps in datadriven decision making Practice using data to solve common business problems Articulate an understanding of data implications in a system Using data, analyze a common problem in business

## BUS 374. Personal

Investments (5). Introduction to investment goals, strategies, and securities, including certificates of deposit, money market instruments, stocks, bonds, and mutual funds. Additional topics introduced are risk analysis, taxes, and portfolio basics. Does not count for credit in the finance specialization.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of all aspects of personal investing, including investment goals, strategies and securities, risk analysis and portfolio management. Demonstrate written communication skills. Demonstrate the ability to solve problems in personal investing using financial calculators and spreadsheets. Demonstrate awareness of ethical issues in personal investing.
BUS 389. Sustainable Business (5). This course considers the role that business plays in bringing about an environmentally, socially, and economically sustainable future. Topics include how to build sustainability into a business and whether sustainable companies can be profitable. Course will be
offered every year (Winter and Summer).
Upon successful completion of this course, the student will be able to:
Understand the concepts of sustainability and sustainable development from various perspectives, be able to identify related institutions at various levels of organization and in various sectors, and be able to relate sustainability to other concepts such as resilience and planetary boundaries.
Explain different theories and perspectives on the roles and relationships of business, government, and civil society in bringing about a more sustainable world.
Understand the basic principles of industrial ecology, and employ life cycle analysis to calculate the social and environmental impacts of business activities. Identify the ways in which businesses positively and negatively impact the communities and societies in which they operate - socially, environmentally, and economically. Taking the perspective of business leaders, develop plans for integrating sustainability into their strategies, product marketing decisions, organizational structures, and internal activity systems. Identify the key stakeholders to sustainability issues, establish and manage relationships with these stakeholders, and negotiate and mediate the often conflicting demands and perspectives of diverse stakeholders.
BUS 396. Individual Study (1-6).
BUS 397. Honors (1-12).
Prerequisite: admission to department honors program.
BUS 398. Special Topics (16).

BUS 399. Seminar (1-5). May
be repeated if subject is different.
BUS 401. Business Boot
Camp (1). Supervised field
experience seminar. Onlocation industry engagement. Education, training, and business skills application in industry setting. May be repeated up to 5 credits. Grade will either be S or U .
Prerequisite: instructor permission.
Upon successful completion of this course, the student will be able to:
Apply business skills in industry setting.
Establish a professional network within the industry. Demonstrate professionalism in a field setting.
BUS 441. Advanced Business
Law (5). The law of negotiable instruments, suretyship, business structures including partnerships and corporations, trusts and estates, bankruptcy and government regulations of business. BUS 441 and BUS 541 are layered courses; students may not receive credit for both. Prerequisite:
BUS 241 and admission to the
College of Business major
AND completion of the
College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C- grade in each
course and a minimum
collegiate GPA of 2.25 .
Formerly BUS 341, students
may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to critically analyze new reports of current legal proceedings and issues related to material covered in the course. Demonstrate the ability to analyze the meaning of selected judicial cases including the management implications of legal rules drawn from those cases. Demonstrate knowledge and understanding of contemporary legal issues relating to international business
negotiable instruments, debtorcreditor relationships and business organizations.

## BUS 489. AACSB

Assessment (2). This end of program course provides the venue for students to document their learning accomplishments and their readiness for their professional careers. Course will be offered every year (Fall, Winter, Spring). Prerequisites: Admission to a College of Business Major
AND Completion of the
College of Business Foundation Courses (ACCT 251 and ACCT 252 and BUS
221 and BUS 241 and ECON
130 or MATH 130 and ECON
201 and MATH 153 or higher)
with a grade of C - of higher AND completion of College of Business Core Courses (ECON 202 and FIN 370 and SCM 310
and MIS 386 and MKT 362
and MGT 382 and COM 301
and ENG 311) with a
minimum grade of a C - in each course and a minimum
collegiate GPA of 2.25 AND
senior standing AND
completed application for graduation; (OR admission to a College of Business Graduate
Program). Co-requisite: MGT 489.

Upon successful completion of this course, the student will be able to:
Articulate knowledge of the key functional areas of business
Analyze business data
Apply problem solving skills
to a business situation
Evaluate the undergraduate
business educational
experience
Utilize professional development skills
BUS 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.

May be repeated for credit. Grade will either be S or U . Prerequisite: 2.8 overall GPA.

## BUS 492. Applied

Leadership (2-5). Leadership practicum and mentorship expereince. Mentor, supervise and guide MGT 200 student groups through habit formation and professional skills acquisition. By permission of instructor. May be repeated up to 10 credits. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Design a developmental program for mentees that applies learning and mentorship theories. Measure mentee progress and program effectiveness Plan the mentoring of students enrolled in MGT 200 by applying leadership and mentorship theories. Formulate feedback techniques based on learning and mentorship theories Define effective performance and how it relates to task and context.
Create performance
benchmarks for MGT 200
student development.
BUS 495. Directed Research
(1-5). May be repeated for up to 15 credits. Grade will either be S or U . Prerequisite: permission of instructor.
BUS 496. Individual Study (1-6).
BUS 497. Honors (1-12).
Prerequisite: admission to department honors program.
BUS 498. Special Topics (16).

BUS 499. Seminar (1-5).
CHEM 101. Chemistry and
Planet Earth (5). Introduction to chemical principles and applications for non-scientists, with a focus on the interaction of human beings with the natural environment, 4 hours lecture and 2 hours lab weekly. NS-Applications Natural Science (L). Course will be offered every year (Fall, Spring, Summer).

Upon successful completion of this course, the student will be able to:
Recognize chemical vs physical changes, and describe matter in terms of atoms and molecules.
Predict formula and describe type of bonding for simple chemical compounds.
Identify relationships between experimental observations as expressed in tabular or graphic format and make hypotheses concerning cause and effect. Solve basic chemistry problems, using mathematical formulas, scientific notation, SI units, and balanced chemical equations.
Identify several types of chemical processes, including oxidation and reduction, dissolution of electrolytes, and acid-base reactions.
Describe the chemical make-up of earth's atmosphere; describe anthropogenic pollutants in our atmosphere, their source(s), and their effect on the natural environment, human society and individuals
Describe chemistry of energy production from fossil fuels, and discuss potential benefits and risks associated with several forms of energy production.
Discuss and analyze benefits vs risks/costs for either specific examples of recycling or use of specific fertilizers, insecticides and herbicides in food production.
Explain methods for water purification including distillation, reverse osmosis, and sedimentation-filtrationchlorination.
Make, record, and report experimental observations. Draw conclusions from data. Present and discuss data within a team of peers.
CHEM 106. Chemistry
Inquiry (5). Inquiry-based investigations into chemistry to help students develop understanding of fundamental concepts and the process of scientific investigation. This course is designed for
prospective elementary teachers but is open to all students. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Apply appropriate scientific investigative techniques to address questions about relevant chemistry concepts. Collect, analyze, and interpret quantitative and qualitative data to address questions about relevant chemistry concepts. Apply chemistry concepts and processes to personal and societal issues.
Articulate how their own ideas and understanding change and develop, and how the structure of the learning environment and curriculum facilitates these changes.
Find and utilize a variety of resources to learn and communicate about chemistry concepts and processes.

## CHEM 110. Introduction to

 Scientific Problem Solving Used in Modern Chemistry(1). Intended for students who have limited or no experience with scientific problem solving as it relates to modern chemistry. Students who have not taken high school chemistry or physics are strongly encouraged to take this course. A scientific calculator is required for this course. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Correctly arrange scientific equations in their scientific calculators and be able to obtain the correct answer to a given problem. Graphical analysis: Define the independent and dependent variable given graphical data of scientific measurements.
Identify direct and inverse relationships represented in graphical data of scientific measurements.

Interpret relations between two physical quantities based on graphical data of scientific measurements. Units of Measurement Recognize different measurement units and how to convert from one unit to another.
Identify physical quantities with combined units such as density or velocity.
Using quantities with combined units to convert from one unit to another.
Recognizing the limits of precision in scientific measurements and the use of significant figures to describe experimental precision. Students will correctly translate decimal notation to scientific notation.
Recognizing differences in the order of magnitude of numbers that are written in scientific notation.
CHEM 111. Introduction to
Chemistry (4). Chemical principles of the compositions, structure, properties, and changes of matter. Designed for students in certain health science programs. Four lectures weekly. Combined with CHEM 111LAB satisfies Physical and Natural World, Ways of Knowing pathway. NS-Fund Disc Phys and Biological Sciences. Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Apply chemistry concepts to real-world issues. Interpret quantitative and qualitative data to address questions about relevant chemistry topics.
Apply mathematical methods to the solution of common chemistry problems, including the use of scientific notation, significant figures and the quantitative use of balance chemical equations.
Read graphical data, including common x,y plots with axes properly labeled. Students will be able to extract qualitative
information about the relationship between quantities and quantitative information from the slope of $\mathrm{x}, \mathrm{y}$ plots. Understand the difference between accuracy and precision, and the difference between random and systematic error. Describe the terms in an algebraic expression and qualitatively describe the relationships between various terms. Students will be able to use an algebraic expression to solve quantitatively for various terms, given appropriate numerical information.

## CHEM 112. Introduction to

 Organic Chemistry (4). Structure, properties, nomenclature and reactions of carbon compounds. Course will be offered every year (Winter and Spring). Prerequisites: CHEM 111 or CHEM 183 with a grade of Cor higher.Upon successful completion of this course, the student will be able to:
Describe fundamental properties of carbon, its compounds, and various functional groups.
Identify alkanes, alkenes and alkynes. Write correct names and structures and identify reaction products. Identify aromatic compounds. Write correct names and structures and identify reaction products.
Identify alcohols, ethers and thiols. Write correct names and structures and identify reaction products.
Identify molecules that exist as stereoisomers. Predict the number of isomers and their properties.
Identify nitrogen-containing organic compounds. Write correct names and structures and identify reaction products. Identify aldehydes and ketones. Write correct names and structures and identify reaction products.
Identify carboxylic acids and their derivatives. Write correct
names and structures and identify reaction products.
CHEM 113. Introduction to Biochemistry (4). Structure, properties, and metabolism of biomolecules. Course will be offered every year (Spring). Prerequisite: CHEM 112 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Identify the structure, properties, and names of common carbohydrates. Identify the structure, properties, and names of common lipids.
Identify the structure, properties, and names of common amino acids and proteins.
Describe the properties, structures and functions of enzymes.
Identify the structures, properties, names, and functions of nucleotides, RNA, and DNA.
Describe the fundamental characteristics of metabolism, anabolism, and catabolism. Identify the major pathways of carbohydrate, lipid, and amino acid metabolism. Describe the regulation, cell location, and energy changes associated with these pathways.
CHEM 181. General
Chemistry I (4). This course introduces chemistry concepts such as atoms and molecules, stoichiometry, solution chemistry, thermochemistry, electronic structure of the atom and periodicity, and chemical bonding. NS-Fund Disc Phys and Biological Sciences. Course will be offered every year (Fall, Winter and Spring). Prerequisites: strongly recommend high school chemistry and recommend qualification for MATH 153. Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of chemical concepts such as atoms and molecules, stoichiometry, solution chemistry,
thermochemistry, electronic structure of the atom and periodicity, and chemical bonding.
Calculate extensive and intensive properties through basic algebra.
Display a working knowledge
of IUPAC nomenclature
Demonstrate a working
knowledge of chemical
concepts for personal health
and safety, the health and safety of others, and impacts on the local environment
Apply chemistry concepts to real-world issues. Interpret quantitative and qualitative data to address questions about relevant chemistry topics.
Apply mathematical methods to the solution of common chemistry problems, including the use of scientific notation, significant figures and the quantitative use of balance chemical equations.
Read graphical data, including common $\mathrm{x}, \mathrm{y}$ plots with axes properly labeled. Students will be able to extract qualitative information about the relationship between quantities and quantitative information from the slope of $x, y$ plots. Understand the difference between accuracy and precision, and the difference between random and systematic error. Describe the terms in an algebraic expression and qualitatively describe the relationships between various terms. Students will be able to use an algebraic expression to solve quantitatively for various terms, given appropriate numerical information.

## CHEM 182. General

Chemistry II (4). Builds upon concepts from CHEM 181.
Introduces molecular geometry and bonding theories, gas laws, solution properties and chemical kinetics. Students planning on taking CHEM 183 are advised that they must be qualified for MATH 154 before enrolling in CHEM 183. Course will be offered every
year (Winter and Spring).
Prerequisite: CHEM 181 with a
grade of C- or higher.
Upon successful completion of this course, the student will be able to:
Demonstrate a working
knowledge of chemical
concepts such as molecular geometry and bonding theories, gas laws, intermolecular
forces, solution properties, and chemical kinetics.
Calculate extensive and intensive properties through basic algebra. Display a working knowledge of IUPAC nomenclature. Follow mathematical derivations of chemical kinetics that assist in understanding complex chemical interactions.
Demonstrate a working knowledge of chemical concepts, for personal health and safety, the health and safety of others, and impacts on the local environment.
CHEM 183. General Chemistry III (4). Builds upon chemical concepts from CHEM 181 and CHEM 182. Introduces chemical equilibria, acid-base chemistry, solubility, entropy, free energy, and electrochemistry. Course will be offered every year (Fall and Spring). Prerequisite: CHEM 182 with a C- or higher, and MATH 153 with a grade of C or higher, or qualification for MATH 154 on COMPASS test.
Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of chemical concepts such as chemical equilibria, acid-base chemistry, solubility, entropy, free energy, and electrochemistry. Calculate extensive and intensive properties through basic algebra. Display a working knowledge of IUPAC nomenclature.
Follow mathematical derivations of dynamic chemical equilibrium that
assist in understanding complex chemical interactions. Demonstrate a working knowledge of chemical concepts for personal health and safety, the health and safety of others, and impacts on the local environment. CHEM 295. Research (1-6).
By permission. May be repeated for credit. Course will be offered every year (Fall, Winter, and Spring).
CHEM 296. Individual Study (1-6).
CHEM 298. Special Topics (1-6).
CHEM 299. Seminar (1-5).
May be repeated if subject is different.
CHEM 332. Quantitative
Analysis (3). Principles of quantitative analytical chemistry, including statistical treatment of data, complex equilibria, activity, and volumetric, gravimetric, and instrumental analysis. Course will be offered every year (Fall). Prerequisites: CHEM 183 and either CHEM 183LAB or CHEM 193LAB with a grade of C - or higher in each. Co-requisite: CHEM 332LAB. Upon successful completion of this course, the student will be able to:
Compute analytical figures of merit.
Choose appropriate statistical tools.
Compute equilibrium concentrations of complex mixtures of species in aqueous solutions (e.g., precipitation, polyprotic acid-base, etc.) Compute activities. Theoretically reproduce and illustrate titration curves. Choose a buffer and describe how to prepare it.
CHEM 345. Environmental
Chemistry (5). Introduction to aquatic, atmospheric, and soil chemistry. Chemical analysis of environmental samples collected on class field trips. Three lectures and six laboratory hours per week. Course will be offered on even numbered years (Spring).

Prerequisite: CHEM 183 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Apply basic chemical concepts, such as equilibrium, oxidationreduction reactions, kinetics, solubility, and acid-base chemistry to complex environmental processes Collaborate with class mates in researching a topic of interest and presenting it. Derive aqueous concentration of species in different ambient environments from a $\mathrm{pE}-\mathrm{pH}$ diagram.
Collect field samples of waters, air, and soils.
Perform various chemical analyses of liquid, solid and gaseous environmental samples.
Interpret results obtained from analyses.
Coordinate lab work with partners.
Perform modeling of speciation of metals in the environment.

## CHEM 350. Inorganic

Chemistry (3). Atomic structure, properties, and chemical bonding. Includes a discussion of molecular orbital theory, symmetry, group theory, and bonding in solids. Course will be offered every year (Winter). Prerequisites: CHEM 183 and either PHYS
113 or PHYS 123 or PHYS 183 with a grade of C- or higher in each.
Upon successful completion of this course, the student will be able to:
Describe the periodic properties of the elements using the periodic table. Describe the properties of the atomic orbitals that are derived from quantum mechanics, be able to sketch atomic orbitals. Describe the essential principals of molecular orbital theory, sketch and interpret molecular orbital diagrams for diatomic molecules, interpret molecular orbital diagrams for polyatomic molecules.

Describe the different types of solids and identify the primary bonding mechanisms of each. Identify the basic symmetry elements and the point group of molecules.
Know the expected geometries of coordination compounds and name simple coordination compounds.
CHEM 361. Organic
Chemistry I (3). An
introduction to organic chemistry for students majoring in the sciences or preparing for health related careers. Organic structures, nomenclature, spectroscopy, and chemistry of alkanes, alkenes, and alkynes. Course will be offered every year (Fall and Winter). Co- or prerequisite: CHEM 183 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Recognize applications of organic chemistry in our everyday lives
Apply the IUPAC
nomenclature system for alkanes, alkenes, alkynes, and halo alkanes.
Draw and interpret structures for organic compounds. Predict trends in physical properties for a series of related organic compounds. Predict three dimensional conformations for organic molecules.
Use infrared spectroscopy and nuclear magnetic resonance spectroscopy in the identification of organic structures.
Draw a mechanism for a typical electrophilic addition reaction to an alkene and show the structures of intermediate carbocation's.
Identify typical reagents used for basic synthetic reactions of alkenes and alkynes.

## CHEM 362. Organic

Chemistry II (3). Part two of the organic chemistry series. Stereochemistry, nucleophilic substitution and elimination, chemistry of alcohols, ethers, and an introduction to the
chemistry of the carbonyl group. Course will be offered every year (Winter and Spring). Prerequisite: CHEM 361 with a grade of Cor higher.
CHEM 363. Organic Chemistry III (3). Part three of the organic chemistry series. Carbonyl alpha-substitutions and condensations and the chemistry of carboxylic acid derivatives, benzene, amines, and carbohydrates. Course will be offered every year (Spring). Prerequisites: CHEM 362 and CHEM 361LAB with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Recognize applications of organic chemistry in our everyday lives.
Apply the IUPAC nomenclature system for carboxylic acid derivatives, aromatic compounds, and amines.
Draw and interpret structures
for organic compounds. Predict trends in physical properties for a series of related organic compounds. Predict the aromatic character of organic molecules.
Use mass spectrometry and ultraviolet spectroscopy in the identification of organic structures.
Draw a mechanism for typical nucleophilic acyl substitution and carbonyl alpha-substitution and condensation reactions showing the structures of all intermediates.
Identify typical reagents used for basic synthetic reactions of carboxylic acid derivatives, aromatic compounds, amines, and carbohydrates
CHEM 381. Physical

## Chemistry

(Thermodynamics) (5).
Thermodynamics and chemical equilibrium. Phase diagrams. Electrochemistry. Course will be offered every year (Fall). Prerequisites: (CHEM 183 and either CHEM 183LAB or CHEM 193LAB),
(MATH 272), and (either

PHYS 113 or PHYS 123 or PHYS 183) with a grade of Cor higher in each. Upon successful completion of this course, the student will be able to:
Use equations of state to solve problems in thermodynamics and deepen their insight into the physical world. Use the concepts of internal energy, entropy, the Gibbs energy and the Helmholtz energy to solve problems in thermodynamics and deepen their insight into the physical world.
Use partial derivatives as applied to thermodynamics. Interpret and use phase diagrams to solve problems in chemistry and deepen their insight into the physical world. Use concepts of phase equilibrium and chemical potential to solve problems in chemistry and deepen their insight into the physical world.
CHEM 382. Physical Chemistry (Quantum
Chemistry) (3). Introduction to quantum mechanics as applied to chemical systems. The electronic structure of atoms and molecules. Course will be offered every year (Winter). Prerequisite:
CHEM 381 with a grade of Cor higher.
Upon successful completion of this course, the student will be able to:
Use probability distribution functions to determine average values and event probabilities Solve the Schrodinger equation for a series of quantum mechanical systems including the particle-in-a-box, tunneling, the harmonic oscillator, and the rigid rotor. Use the quantum mechanical solutions for the hydrogen atom to determine physical quantities such as average distances of electrons from nuclei and orbital energies Incorporate the concepts of electron shielding, exchange symmetry, the Pauli Exclusion principle, Hund's rule, and spin-orbit coupling into their
understanding of many electron atoms.

## CHEM 383. Physical

 Chemistry (Quantum, Statistical Mechanics) III (4). Electronic structures of atoms and molecules. Introduction to statistical thermodynamics. Course will be offered every year (Spring). Prerequisite: CHEM 382 with a grade of Cor higher.Upon successful completion of this course, the student will be able to:
Use the quantum mechanical solutions for the hydrogen atom to determine physical quantities such as average distances of electrons from nuclei and orbital energies. Incorporate the concepts of electron shielding, exchange symmetry, the Pauli Exclusion principle, Hund's rule, and spin-orbit coupling into their understanding of many electron atoms. Use the variational method to determine the energies and wave functions for molecular systems.
Use the Boltzmann distribution to determine how a large ensemble of particles is distributed among the energy states available for electronic, translational, rotational, and vibrational modes of motion. Derive the expressions of thermodynamic functions including internal energy, enthalpy, Gibbs energy, Helmholtz energy, entropy, and heat capacity.
CHEM 395. Research (1-6).
By permission. May be repeated for credit.
CHEM 396. Individual Study
(1-6). May be repeated if subject is different.
CHEM 397. Honors (1-12).
Prerequisite: admission to department honors program. CHEM 398. Special Topics (1-6). May be repeated if subject is different.
CHEM 399. Seminar (1-5). May be repeated if subject is different.
CHEM 431. Biochemistry I
(3). Chemical structure,
physical properties, nomenclature and function of proteins, carbohydrates, lipids, nucleic acids, and biological membranes. Protein function includes membrane transporters and enzyme kinetics, inhibition, and regulation. Course will be offered every year (Fall). Prerequisite: CHEM 362 with a grade of C- or higher.
Upon successful completion of this course, the student will be able to:
Correctly use biochemical vocabulary
Draw structural formulae and name selected molecules within all four classes of biologically important molecules: proteins, lipids, carbohydrates and nucleic acids.
Describe in text or with structural formulae the chemical structure of macromolecules made from amino acids, nucleotides, or carbohydrates.
Describe the chemical and physical forces that collectively maintain the structure of macromolecules and the biological membrane. Describe the relationship between the physiochemical properties of molecules and their biological function. Explain the chemical basis of selected biochemical laboratory techniques and interpret data resulting from those techniques.
Calculate kinetic constants of enzymes and protein transporters using the Michaelis-Menton equation or tabulated data.

## CHEM 432. Biochemistry II

(3). Metabolism of carbohydrates, lipids, amino acids, and nucleotides, including metabolic regulation and thermodynamics. Course will be offered every year (Winter). Prerequisite: CHEM 431 with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:

Correctly use biochemical vocabulary.
Describe the free energy changes that occur in intermediary metabolism Describe reaction pathways of intermediary metabolism by naming and writing structural formulae of intermediates, naming enzymes, and naming cofactors in glycolysis, the tricarboxylic acid cycle, and beta-oxidation of fatty acids. Summarize intermediary metabolic pathways by naming select intermediates, enzymes, and cofactors in cholesterol synthesis, glycogen metabolism, amino acid metabolism, and nucleotide metabolism.
Describe the cellular structural requirements and chemical steps that form an electrochemical gradient in mitochondria and how the gradient contributes to ATP synthesis (electron transport and oxidative phosphorylation). Describe the role of allostery, covalent modification, and hormones in the regulation of select metabolic pathways. Describe the chemical components and processes involved in signal transduction. CHEM 433. Biochemistry III (3). In depth coverage of the central dogma of biochemistry, including DNA replication and repair and transcriptional and translational aspects of genetic regulation, with emphasis on common biochemical techniques and data analysis. Course will be offered every year (Spring). Prerequisite: CHEM 431 with a grade of Cor higher.
Upon successful completion of this course, the student will be able to:
Correctly use biochemical vocabulary.
Describe in text or with drawings the basis for biochemical experimental techniques
Critically analyze data from biochemical experiments.

Describe in text or with drawings mechanisms of transcriptional and translational regulation.
Analyze protein and nucleic acid sequences using common online tools.
CHEM 452. Instrumental Analysis Lecture (3). Theory and functional aspects of modern analytical instrumentation. Emphasis is on components of instruments, limitations of measurements, and applicability of techniques to specific analytical problems. Course will be offered every year (Winter). Prerequisites: CHEM 332 and CHEM 332LAB with a grade of C - or higher. Co-requisite: CHEM 452LAB.
Upon successful completion of this course, the student will be able to:
Describe the theoretical basis for each technique. Give examples of specific instruments of every analytical technique
Draw and label schematics of each instrument including components.
Demonstrate ability to select the best analytical technique to apply to a specific chemical problem.
CHEM 473. Transition Metal
Chemistry (3). A survey of the structure, spectroscopy, and characterization of transition metal compounds, and the electronic structures of transition metals and lanthanides. Course will be offered on on odd numbered years (Spring). Prerequisites: CHEM 350 and 382 with a grade of C - or higher in each. Upon successful completion of this course, the student will be able to:
Name inorganic compounds Interpret magnetic susceptibility data
Interpret UV/Vis absorption spectra
Apply ligand field and crystal field theories to predict the electronic structure of transition metal complexes

Apply ligand field and crystal field theories to predict the geometry of transition metal complexes
Interpret Tanabe-Sugano diagrams: Use molecular orbital theory to describe the electronic structure of transition metal complexes Use term symbols to identify electronic transitions in lanthanide ions.
CHEM 488. Colloquium (1).
Students prepare a poster presentation on a current topic in chemistry. May be from a research experience or from a review of the chemistry literature. Course will be offered every year (Fall, Winter and Spring). Prerequisite: senior standing. Upon successful completion of this course, the student will be able to:
Search the peer-reviewed academic literature in chemistry. Critically review journal articles on topics in chemistry. Prepare a well-organized and informative poster presentation on a current topic in chemistry. Defend and explain arguments made during the presentation. Critically review/assess the work of a peer.
CHEM 490. Cooperative Education (1-12). An individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Course will not have an established scheduling pattern. Prerequisite: prior approval.
CHEM 491. Workshop (1-6). May be repeated for credit.
CHEM 492. Laboratory
Experience in Teaching
Chemistry (2). Integrates both chemistry and education in order to guide teaching assistants into hands-on, inquiry-based approaches to learning in the laboratory
environment. May be repeated for credit. Grade will be either S or U . Additional time to be assigned. Course will be offered every year (Fall, Winter and Spring). Upon successful completion of this course, the student will be able to:
Demonstrate effective teaching methods in an authentic teaching environment. Perform safe and appropriate laboratory techniques and model this to their laboratory students.
Demonstrate an understanding of chemical safety and how to educate themselves on ordering and proper storage of chemicals.
Develop a personal teaching philosophy.
Integrate chemistry and education in a manner that is consistent with the most current and appropriate practices in both fields. Reflect upon their teaching practices and align them with accepted teaching practices in the learning laboratory.
CHEM 495. Senior Research (1-6). By permission. May be repeated for credit.
CHEM 496. Individual Study (1-6).
CHEM 497. Honors (1-12).
Prerequisite: admission to department honors program. CHEM 498. Special Topics (1-6).
CHEM 499. Seminar (1-5).
CHEM 111LAB.
Introductory Chemistry
Laboratory (1). Introduction to basic chemistry techniques. Two hours laboratory weekly. Combined with CHEM 111 lecture satisfies Physical and Natural World, Ways of Knowing. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, Spring and Summer). Co- or prerequisite: CHEM 111.
Upon successful completion of this course, the student will be able to:
Apply chemistry concepts to real-world issues.

Interpret quantitative and qualitative data to address questions about relevant chemistry topics.
Apply mathematical methods to the solution of common chemistry problems, including the use of scientific notation, significant figures and the quantitative use of balance chemical equations.
Read graphical data, including common x,y plots with axes properly labeled. Students will be able to extract qualitative information about the relationship between quantities and quantitative information from the slope of $x, y$ plots. Understand the difference between accuracy and precision, and the difference between random and systematic error.
Describe the terms in an algebraic expression and qualitatively describe the relationships between various terms. Students will be able to use an algebraic expression to solve quantitatively for various terms, given appropriate numerical information.

## CHEM 112LAB.

Introduction to Organic Chemistry Laboratory (1). Basic techniques in organic chemistry. Two hours of laboratory weekly. Course will be offered every year (Winter and Spring). Prerequisites: CHEM 111LAB or CHEM 183LAB or CHEM 193LAB with a grade of C - or higher. Pre- or Corequisite: CHEM 112.

Upon successful completion of this course, the student will be able to:
Know principles of laboratory
safety and demonstrate safe techniques
Demonstrate ability to use common organic lab techniques such as recrystallization, extraction, and determination of melting point.
Carry out laboratory synthesis and identification of the product by melting point or by chemical reactivity.

Perform separation techniques such as distillation and thinlayer chromatography. Use laboratory data to calculate actual product yield, and calculate results from titration experiments.
CHEM 113LAB.
Introduction to Biochemistry
Laboratory (1). Supports
CHEM 113 lecture. Two hours
of laboratory weekly. Course
will be offered every year (Spring). Co- or prerequisite: CHEM 113. Prerequisite: CHEM 112LAB with a grade of C- or higher. Upon successful completion of this course, the student will be able to:
Know principles of laboratory safety and demonstrate safe techniques.
Perform common chemical tests of carbohydrates, lipids, amino acids, and proteins Demonstrate ability to use common biochemical techniques such as spectrophotometry and titration Use spreadsheets to analyze data for standard curves and to calculate concentrations of unknown solutions. Perform various qualitative tests to identify common biochemical substances and their properties
CHEM 181LAB. General Chemistry Laboratory I (1). This laboratory supports hands-on, inquiry-based approaches to exploring topics presented in CHEM 181. Three hours of laboratory weekly. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter and Spring).
Co- or prerequisite:
CHEM 181.
Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of chemical concepts such as atoms and molecules, stoichiometry, solution chemistry, thermochemistry, electronic structure of the atom and
periodicity, and chemical bonding.
Collect and analyze data, such as calculating extensive and intensive properties of chemicals, in a laboratory setting.
Demonstrate Proper
Laboratory Procedure (PLP),
such as performing safe
laboratory procedures, handling of chemicals and scientific apparatus, disposing of hazardous waste, and storing chemicals appropriately.
Demonstrate a working
knowledge of chemical concepts for personal health and safety, the health and safety of others, and impacts on the local environment.
CHEM 182LAB. General Chemistry Laboratory II (1). Integrates concepts learned in CHEM 181 and supports hands-on, inquiry-based approaches to topics presented in CHEM 182. Three hours of laboratory weekly. Course will be offered every year (Winter and Spring). Co- or
prerequisite: CHEM 182.
Prerequisite: CHEM 181LAB
with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of chemical concepts, for personal health and safety, the health and safety of others, and impacts on the local environment. Collect and analyze data, such as calculating extensive and intensive properties of chemicals, in a laboratory setting.Demonstrate Proper Laboratory Procedure (PLP), such as performing safe laboratory procedures, handling of chemicals and scientific apparatus, disposing of hazardous waste, and storing chemicals appropriately. Demonstrate Proper Laboratory Procedure (PLP), such as performing safe laboratory procedures, handling of chemicals and scientific apparatus, disposing
of hazardous waste, and storing chemicals appropriately. Demonstrate a working knowledge of chemical concepts for personal health and safety, the health and safety of others, and impacts on the local environment.
CHEM 183LAB. General Chemistry Laboratory III
(1). Integrates concepts introduced in CHEM 181 and CHEM 182 and supports hands-on, inquiry-based approaches to topics in CHEM 183. Three hours of laboratory weekly. Course will be offered every year (Fall and Spring). Co- or prerequisite: CHEM
183. Prerequisite:

CHEM 182LAB with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of chemical concepts such as chemical equilibria, acid-base chemistry, solubility, entropy, free energy and electrochemistry.
Collect and analyze data, such as calculating extensive and intensive properties of chemicals, in a laboratory setting.
Demonstrate Proper Laboratory Procedure (PLP), such as performing safe laboratory procedures, handling of chemicals and scientific apparatus, disposing of hazardous waste, and storing chemicals appropriately. Demonstrate a working knowledge of chemical concepts for personal health and safety, the health and safety of others, and impacts on the local environment.
CHEM 193LAB. General Chemistry III Honors Laboratory (1). As a more advanced version of CHEM 183LAB, this course integrates concepts introduced in CHEM 181 and CHEM 182 and utilizes hands-on, inquirybased approaches to investigate topics in CHEM 183. Students will work closely with one or more faculty on research-type
projects. Course will be offered every year (Spring).
Prerequisites: CHEM 182LAB
with a grade of $B$ or higher and permission of instructor. Corequisite: CHEM 183
Upon successful completion of this course, the student will be able to:
Demonstrate expertise in using laboratory equipment and associated techniques to make accurate and precise measurements
Collaborate with other students to develop an experimental approach to solving a problem or answering a posed question. Collect, analyze, and interpret experimental data to obtain meaningful results. Maintain an accurate and usable record of laboratory work, and prepare written lab reports that satisfactorily represent the work accomplished and describe its significance in the context of specified objectives.
CHEM 332LAB. Quantitative Analysis Laboratory (2).
Accompanying laboratory to quantitative chemistry including statistical treatment of data and volumetric, gravimetric, and instrumental analysis. Six hours of laboratory weekly. Course will be offered every year (Fall). Prerequisites: CHEM 183 and either CHEM 183LAB or CHEM 193LAB with a grade of C- or higher in each. Corequisite: CHEM 332.
Upon successful completion of this course, the student will be able to:
Compute analytical figures of merit.
Evaluate significance of results obtained.
Demonstrate effective use of tools of the trade in analytical chemistry.
Follow and organize laboratory procedures meticulously.
Apply knowledge acquired in lecture part.
Report results in a meaningful and clear fashion.

CHEM 361LAB. Organic Chemistry Laboratory I (2).
An introduction to organic chemistry laboratory techniques including melting point determination, recrystallization, extraction, distillation, chromatography, and IR and NMR spectroscopy. Six hours of laboratory weekly. Course will be offered every year (Fall and Winter). Co- or prerequisite: CHEM 361.
Upon successful completion of this course, the student will be able to:
Run IR spectra of liquids and solids. Gain experience interpreting IR and NMR spectra.
Determine identity and purity of organic solids through melting point determination. Purify organic compounds through recrystallization, extraction, distillation. Practice working with a team of other scientists in a laboratory setting. Practice making hypotheses, collecting and evaluating data. Practice technical report writing.
Practice finding information in the chemical literature, and extracting specific information from the primary chemical literature.

## CHEM 363LAB. Organic

 Chemistry Laboratory II (2) Application of basic laboratory techniques learned in CHEM 361LAB to more advanced functional grouptransformations. Six hours of laboratory weekly. Course will be offered every year (Spring) Co- or prerequisite: CHEM 363. Prerequisite: CHEM 361LAB with a grade of C- or higher. Upon successful completion of this course, the student will be able to:
Use basic laboratory
techniques for isolation and purification of organic compounds, including extraction, recrystallization, distillation, and chromatography.

Select and use a variety of chemistry laboratory and computational techniques that are appropriate in achieving the desired functional group transformations.
Draw and interpret structures for organic compounds. Draw mechanisms for all the reactions studied, including the structures of all intermediates.
Use infrared spectroscopy, gas chromatography, mass spectrometry, and nuclear magnetic resonance spectroscopy in the identification of organic structures.
Formulate and test hypotheses, trouble-shoot laboratory procedures, and draw conclusions from obtained data and observations.
CHEM 382LAB. Integrated Physical/Inorganic
Laboratory I (2). Synthesis of inorganic compounds and their characterizations using physical chemistry methods, with additional experiments in thermodynamics, quantum mechanics, and kinetics. Six hours of laboratory weekly. Course will be offered every year (Winter). Co- or prerequisite: CHEM 382. Upon successful completion of this course, the student will be able to:
Name inorganic compounds Obtain and interpret data used to characterize inorganic compounds, including UV/Vis absorption spectra, infrared spectra, and nuclear magnetic resonance data.
Perform basic inorganic synthesis.
Describe the physical principles that constitute the foundations of thermodynamics. Exhibit proficiency with data collection and data manipulation techniques applied to physical phenomena. Exhibit proficiency in the presentation of experimental results in a written format.
CHEM 383LAB. Integrated
Physical/Inorganic
Laboratory II (1). Synthesis
of inorganic compounds and their characterization using physical chemistry methods, with additional experiments in thermodynamics, quantum mechanics, and kinetics. Three hours of laboratory weekly. Course will be offered every year (Spring). Co- or prerequisite: CHEM 383. Prerequisite: CHEM 382LAB with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Synthesize inorganic compounds, including air sensitive materials.
Analyze inorganic compounds using traditional characterization techniques, and be able to interpret the results of the analysis. Apply modeling techniques to describe the kinetics of complexation reactions. Apply modern computational methods to the characterization of chemical compounds and reactions.

## CHEM 431LAB.

Biochemistry Laboratory (2).
Quantitative and qualitative biochemical techniques applied to proteins and nucleic acids. Six hours of laboratory weekly. Course will be offered every year (Fall and Winter). Co- or prerequisite: CHEM 431. Prerequisite: CHEM 361LAB with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Set-up and operate biochemical instrumentation
Record data in a laboratory notebook
Calculate data and organize results in tabular or graphical format
Interpret results from UVvisible, electrophoretic, and other biochemical experiments Write laboratory reports with correct nomenclature, vocabulary, and data presentation
Design experiments to characterize kinetic parameters of an enzyme

CHEM 433LAB.
Biochemistry Lab II (2).
Molecular cloning of a gene into a plasmid vector, followed by expression and purification of the encoded protein using modern chromatography techniques. Downstream analysis and experimentation is then conducted on the purified protein. Six hours of laboratory weekly. Course will be offered every year (Spring).
Prerequisite: CHEM 431LAB. Co-or prerequisite: CHEM 433.

Upon successful completion of this course, the student will be able to:
Clone a gene either by the polymerase chain reaction or by cut and paste with restriction endonucleases. Express and purify a protein by column chromatography.
Design experiments to characterize a protein. Calculate data and organize results in tabular or graphical format.
CHEM 452LAB.
Instrumental Analysis
Laboratory (2).
Accompanying laboratory to Instrumental Analysis Lecture providing hands-on experience with a number of instrumental methods used in modern chemical research, analysis, and process control. Six hours of laboratory weekly. Course will be offered every year (Winter). Co- or prerequisite: CHEM 452 with a grade of Cor higher.
Upon successful completion of this course, the student will be able to:
Follow detailed procedures for the use of new instruments and reporting.
Interpret experimental data within the limitations of the instrumental technique used. Draw and label schematics of each instrument used, including components. Cooperate and communicate with another member of the group.
CHIN 151. First-year
Chinese (5). Courses must be
taken in sequence
Conversational approach with intensive oral-aural drill. A firm foundation in basic structural principles of the language is necessary.
CHIN 152. First-year
Chinese (5). Courses must be taken in sequence. Conversational approach with intensive oral-aural drill. A firm foundation in basic structural principles of the language is necessary. Prerequisite: CHIN 151.
CHIN 153. First-year
Chinese (5). Courses must be taken in sequence. Conversational approach with intensive oral-aural drill. A firm foundation in basic structural principles of the language is necessary. Prerequisite: CHIN 152.
CHIN 251. Second-year Chinese (5). Graduated readings in modern Chinese writings with discussion conducted in Chinese. Courses must be taken in sequence.

## CHIN 252. Second-year

Chinese (5). Graduated readings in modern Chinese writings with discussion conducted in Chinese. Courses must be taken in sequence. Prerequisite: CHIN 251.
CHIN 253. Second-year Chinese (5). Graduated readings in modern Chinese writings with discussion conducted in Chinese. Courses must be taken in sequence. Prerequisite: CHIN 252.
CHIN 298. Special Topics (16).

CHIN 299. Seminar (1-5).
May be repeated if subject is different.
CHIN 301. Chinese
Literature in Translation (4).
A survey of Chinese literature in translation. CHIN 301 and
AST 301 are equivalent courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of Chinese culture and trace the influence and
representation of this culture in the literary works.
Characterize the basic features of traditional Chinese literary forms or genres (prose, poetry, and drama).
Identify recurring themes, conflicts and characters in Chinese literary works.
CHIN 396. Individual Study
(1-6). May be repeated if subject is different.
CHIN 397. Honors (1-12).
Prerequisite: admission to department honors program.
CHIN 398. Special Topics (16).

CHIN 399. Seminar (1-6).
May be repeated if subject is different.
CHIN 461. Chinese Cinema
(4). An examination of the history, aesthetic achievements, major directors
and themes, and cultural explorations of Chinese cinema. Includes films from mainland China, Taiwan, and Hong Kong. Prerequisite: FILM 250.
CHIN 496. Individual Study (1-6).
CHIN 497. Honors (1-12).
Prerequisite: admission to
department honors program.
CHIN 498. Special Topics (16).

CHIN 499. Seminar (1-5).
May be repeated if subject is different.
CMGT 101. Construction and the Built Environment
(3). Introduction to constructon and the built environment focusing on construction history, categories, materials and parties involved. Career opportunities and professional ethics in the construction industry are also discussed. Course will be offered every year (Winter and Spring). Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the historical context of the built environment and construction categories. Apply basic construction terminology, parties and
industry structure involved in the construction discipline. Identify trends and career opportunities in the construction industry. Demonstrate an understanding of professional ethics found in the construction industry.
CMGT 201. Computer Applications in Construction
(3). Introduction to the use of innovative technologies, computer-based management and construction principles to manage construction projects. Two hours of lecture and two hours of lab per week.
Permission by instructor.
Course will be offered every year (Fall). Prerequisite: CMGT 101.
Upon successful completion of this course, the student will be able to:
Create effective electronic documents through the application of computers for the planning and management of construction projects. Use technology based equipment on a simulated construction project to plan and manage construction projects.
Use building information modeling (BIM) applications for planning and managing construction projects.
Demonstrate knowledge of Procore, HCSS, CMiC, SAGE and other cloud based construction software to effectively manage the construction process, documents in the office and jobsite.
CMGT 245. Light
Commercial Construction
(5). Construction of building foundations, commercial carpentry, and enclosing of wood frame structures. Students participate in construction of a building. Prerequisite: CMGT 265. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to lay out a simple building and get the corners square within $1 / 4$ " (measuring diagonals).

Demonstrate the ability to construct footing and foundation wall forms and place concrete.
Demonstrate the ability to frame a simple wood frame building.
Demonstrate the ability to install siding roofing, doors and windows.
Estimate the required quantities of construction materials for a simple building within 5\%

## CMGT 265. Construction

Documents (3). Introduction to construction documents used for planning and management of construction processes. Extensive work with reading, interpreting and analyzing of construction plans, technical specifications, conditions, agreements, proposal documents and other related documents. Permission by instructor. Prerequisites: CMGT 201 and ETSC 161. Course will be offered every year (Fall and Winter). Upon successful completion of this course, the student will be able to:
Introduce construction contract documents to plan and manage construction processes. Understand the nomenclature, purpose, organization, and context of contract documents and how they control construction processes. Introduce and use electronic construction documents to plan and manage construction processes.
CMGT 267. Plane Surveying
(3). General surveying theory and practice pertaining to distance, elevation, and angle measurement. Includes traverse calculations and an emphasis on construction applications. Prerequisites: MATH 154 and CMGT 265. Co-requisites: CMGT 267LAB or CMGT 267LABHC.
Upon successful completion of this course, the student will be able to:
Properly account for surveying errors and error propagation and demonstrate an
understanding of distance and angle and direction measurement and units. Explain the components of surveying instruments and demonstrate a working knowledge and ability to properly care for these instruments.
Complete a 1500 foot level loop within fourth order accuracy. Complete a five sided closed traverse and corresponding calculations to third order accuracy. Perform calculations for traverse closure and area. Perform specific applications of surveying techniques and calculations pertaining to grade staking, earthwork volume calculations and building layout.
Demonstrate the ability to perform a stadia survey and create a site map, including topography.
Demonstrate the ability to accurately and neatly record field work.
CMGT 298. Special Topics (1-6). May be repeated if subject is different.
CMGT 299. Seminar (1-5). May be repeated if subject is different.
CMGT 320. Electrical
Systems (3). Design and specification of building electrical systems including circuit principles, power distribution, and low voltage controls. Two hours of lecture and two hours of lab per week.
By permission of instructor. Course will be offered every year (Winter). Prerequisites: CMGT 265.
Upon successful completion of this course, the student will be able to:
Obtain a fundamental understanding of electricity as applied to construction. Students will understand basic circuitry, electrical design considerations and electrical construction terminology. Draw and analyze simple electrical circuits, calculate voltage, resistance and amperages across various
parallel and or series circuits through the application of Ohm's law.
Quantitatively and qualitatively be able to describe the 3-phase power, electrical equipment, protective devices and power factor as applied to residential, commercial and heavy/civil projects.
Express themselves on the technical subject related to electrical construction.
CMGT 343. Construction
Estimating I (4). Quantity surveying and bid preparation for general construction. Use of cost handbooks, specifications, and bid documents. Three hours of lecture and one hour of practice. Permission by instructor. Course will be offered every year (Fall). Prerequisite: CMGT 265. Upon successful completion of this course, the student will be able to:
Define project activities (tasks) and work breakdown structure (WBS) for a residential and commercial building by considering equipment, subcontracts, material requirements and event sequencing.
Define sequential logic on a network diagram, including start to start, finish to start, start to finish and finish to finish logic, with lag and lead times identified. Manually perform a forward and backward pass on both an activity on node and activity on arrow network, identify the critical path, early and late starts and finishes and float times for each activity. Demonstrate an understanding of network scheduling as it relates to contract provisions, delay claims and dispute resolution for a project. Demonstrate a working knowledge of resource considerations, including resource histograms, allocation resource leveling, cash flow and earned value for a project. Properly utilize a variety of specialized scheduling
techniques, including PERT, linear scheduling and short interval scheduling. Accurately and quickly perform each of the items identified above on Microsoft Project 98 scheduling software, including proper use of reports and graphics.

## CMGT 344. Construction

 Estimating II (4). An advanced course to build on estimating skills, determine resources, cost requirements and bid preparation for general construction. Three hours lecture and two hours lab. Permission by instructor. Course will be offered every year (Winter). Prerequisite: CMGT 343 and CMGT 346. Upon successful completion of this course, the student will be able to:Able to identify the resource requirements required (materials, labor, equipment, time and money) to build construction projects. Able to reference safety items, understand how safety concerns is addressed at the job site, and how it must be planned for during an estimate. Understand how to determine and develop costs associated with the required resources to build construction projects. Demonstrate the ability to work in teams and estimate an entire commercial project.
CMGT 345. Heavy Civil Estimating II (4). Advanced estimating techniques, resource selection, cost requirements and bid preparation for heavy civil and highway construction. Three hours lecture and two hours lab. Permission by instructor. Course will be offered every year (Winter). Prerequisites: CMGT 343 and CMGT 347.
Upon successful completion of this course, the student will be able to:
Understand resource requirements required (materials, labor, equipment, cost, and schedule) to build heavy civil projects.

Identify and reference safety items, understand how safety concerns are addressed at the job site, and how they must be planned for during the estimate.
Develop a basic understanding on general heavy civil and highway construction techniques, means, and methods.
Work in teams and estimate and present to a bid review panel an entire heavy civil project.
Obtain general knowledge in a version of heavy civil estimating software package.
Have general knowledge of ethical standards and issues related to heavy civil estimating.
CMGT 346. Construction Methods and Materials (4).
Materials commonly used and the various methods employed in construction. Introduction to materials testing.
Prerequisite: CMGT 265.
CMGT 347. Heavy Civil Methods and Materials (4). Materials commonly used and the various methods employed with an emphasis on heavy, civil, marine, and highway construction.
Prerequisite: CMGT 265.
Upon successful completion of this course, the student will be able to:
Apply the basics of asphalt paving materials and equipment and the basic engineering properties of soil, including moisture content, densities and compaction to a construction site.
Apply the basics of concrete materials and equipment used in heavy civil, marine and highway construction to a construction site. Identify typical building construction materials used including their properties, advantages, disadvantages and installation.
Accurately research a selected topic and write a five to seven page research paper on this topic, including a bibliography.

Efficiently research, prepare and deliver a 20 minute oral presentation on an assigned topic, including proper use of visual aids, to a group of peers.
CMGT 396. Individual Study
(1-6). May be repeated if subject is different.
CMGT 397. Honors (1-12).
Prerequisite: admission to department honors program.
CMGT 398. Special Topics
(1-6). May be repeated if subject is different.
CMGT 399. Seminar (1-5).
May be repeated if subject is different.
CMGT 440. Temporary
Structures (4). An
introduction to the materials, methods, and techniques associated with temporary construction facilities such as false work, scaffolding, formwork, and cofferdams.
Prerequisites: IET 312 and
either CMGT 346, or CMGT 347.

Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design vertical and horizontal formwork and shoring. Identify different types of scaffolding. They will be able to develop a project scaffolding layout including a safety plan. Demonstrate an ability to calculate the various forces required to construct cofferdams and earth retaining structures.
Define site dewatering methods.
Identify the various materials and techniques available to construct temporary structures.
CMGT 441. Wood and Steel
Construction (4). A
comprehensive study of the materials, design, and erection of wood and steel structures.
Prerequisites: IET 312 and
CMGT 346.
CMGT 442. Building Mechanical Systems (3). An introduction to building service systems. Study the interfaces and specifications of mechanical and plumbing systems in building
construction. Topics include plumbing, fire suppression, storm drainage, heat gain/loss, heating and cooling systems. Permission by instructor. Course will be offered every year (Winter). Prerequisite: CMGT 265.
Upon successful completion of this course, the student will be able to:
Properly identify items and terms related to building mechanical systems, including HVAC components, plumbing systems and site drainage systems. (ACCE SLO 8, 10, 20 DA)
Demonstrate an understanding of the principles of heat loss and gain in a building and properly calculate these values. Demonstrate an understanding of design criteria for modern HVAC systems and an ability to create a schematic of an HVAC and refrigeration system. (ACCE SLO 8, 10, 20 DA)
Demonstrate an understanding of a building supply system and a building drainage system. (ACCE SLO 20, DA) Demonstrate an understanding of the mechanical contracting industry and how this industry interacts with others on a construction project. (ACCE SLO 12, I) Demonstrate the ability to work on mechanical systems projects as a team player. Develop a basic understanding of the code requirements for mechanical systems.
CMGT 443. Heavy Civil
Utilities (3). An introduction to the materials, equipment, methods, and safety requirements for the construction of underground and above ground utilities including water, sewer, natural gas, and electrical systems. Prerequisites: CMGT 346 or CMGT 347.
Upon successful completion of this course, the student will be able to:
Identify the items and terminology of utility systems
and the techniques required to construct them. Identify the major materials used in constructing underground utilities. Be able to select the required equipment to install these materials.
Identify appropriate safety measures during the construction of underground utilities.
Demonstrate the basics of trenchless construction techniques.
Identify the major components of water/sewer treatment and central utility plants. Analyze a set of utility construction plans and provide a plan on type of equipment to be used, tasks and crew sizes required.
Demonstrate a basic understanding of the code requirements for underground utilities.

## CMGT 444. Codes,

Contracts, and Specifications
(4). Construction contracts and liability, bonding, arbitration, specifications, and building codes administration. Prerequisites: BUS 241, ENG 102, and CMGT 346 or CMGT 347.

CMGT 445. Heavy Civil
Contract Law (4).
Construction contracts, liability, bonding, arbitration, and heavy civil highway specifications. Prerequisites:
BUS 241, ENG 102, and CMGT 346 or CMGT 347. Upon successful completion of this course, the student will be able to:
Apply critical thinking and express a contract position based on principles of construction contract law, both orally and in writing. Distinguish between different types of contracting vehicles and payment types and understand the advantages and disadvantages of the various options.
Understand the importance of maintaining extensive
documentation.

Understand, work with and apply some of the most important construction contract clauses of, "changes", "differing site conditions", matters of time, construction safety, and environment compliance.
Understand magnitude, duties, and responsibilities associated with the changes and differing site condition clauses. Able to apply safety and environmental clauses effectively.
Distinguish what constitutes a
claim, how to quantify it in
terms of time and money by applying tools of cost accounting and cost engineering.
Distinguish between ethical and non-ethical behavior as applied to construction situations.
Determine the need for Bid, Payment, and Performance bonds. Know the reasons behind and responsibilities for liens, the Miller act and use of sureties.
Obtain a basic working knowledge of how to use the
WSDOT standard construction specifications.
CMGT 447. Construction
Planning, Scheduling, and
Control (4). Project scheduling and evaluation using network scheduling techniques, including critical path scheduling. Includes short interval scheduling and cash flow forecasting. Three hours of lecture and one hour of practice. Permission by instructor. Course will be offered every year (Spring). Prerequisite: CMGT 344 or CMGT 345.
Upon successful completion of this course, the student will be able to:
Define project activities \&
work breakdown structure
(WBS) for a commercial building or heavy civil project by considering equipment, subcontracts, material requirements and event sequencing.
Define sequential logic on a network diagram, including
finish to start, start to start, and finish to finish logic, with lag and lead times identified. Manually perform forward and backward passes on activity on node diagrams, identify critical path, early/late starts/finishes, and total \& free float for activities.
Demonstrate an understanding of network scheduling as it relates to contract provisions, delay claims and dispute resolution for a project.
Demonstrate a working knowledge of resource considerations, including resource histograms and resource leveling, cash flow and earned value for a project. Properly utilize project cost reports and predictive models including earned value management.
Accurately and quickly perform several of the items identified above on Primavera P6 scheduling software, including proper use of reports and graphics.
CMGT 450. Soils and
Foundations (4). An introduction to soil mechanics and analysis and design of both shallow and deep foundations.
Three hours lecture and two hours of lab. Permission by instructor. Course will be offered every year (Fall). Prerequisites: ETSC 312 and either CMGT 346 or CMGT 347.

Upon successful completion of this course, the student will be able to:
Identify and describe sources of soils, how these soils are deposited and their physical engineering properties as they relate to the Unified Classification System. Properly calculate engineering properties of soils, including water flow through soil using Darcy's equation, moisture content, densities and void ratio, based on information obtained from reading a soil boring log.
Demonstrate an understanding of soil compaction and the
relationship of soil density to moisture content. Properly calculate stress distribution in soils beneath both a point and distributed foundation load using influence coefficients, the Boussinesq Equation and chart and a Newmark chart. Properly calculate consolidation and settlement of a foundation over a clay stratum, as a function of time, using an "e $\log \mathrm{p}$ curve". Demonstrate an understanding of soil strength due to cohesion and internal friction, the tests used to determine this strength and how this relates to the ability of the soils to support a variety of structures.
Properly analyze and design both shallow and deep foundations, including spread footings, piling and piers. Also, properly determine at rest, active and passive lateral soil stress on earth retaining structures.

## CMGT 452. LEED in

## Sustainable Construction (4).

The process using LEED as a measurement for sustainable construction. The course covers benefits and mechanisms of green building, cost analyses, and professional problem solving. CMGT 452 and ETSC 552 are equivalent courses; students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: CMGT 265.

Upon successful completion of this course, the student will be able to:
Identify and apply LEED terminology. Identify and apply the LEED rating system criteria. Identify and discuss prerequisites, credits and points for each credit category. Evaluate a project to calculate the total LEED points possible and identify the most probable certification level for the project.
CMGT 455. Principles of Construction Management
(4). Fundamental tools of
construction management.
Topics include contract management, scheduling, cost estimating, cost control, conflict management, negotiating, team building, quality control, safety, and a capstone project. Prerequisites: CMGT 447 and either CMGT 444 or CMGT 445.
Upon successful completion of this course, the student will be able to:
Able to systematically plan, organize, manage, control, and document construction job site activities.
Able to develop the following type of documentation: RFI's, shop drawings, cost control, jobsite layout plan, meeting minutes, safety plans, quality plan, change orders, and. payment schedule.
Demonstrate an understanding of the jargon and rational behind project management. Demonstrate the ability to review an actual project and identify good and bad project management techniques.
CMGT 456. Principles of Heavy Civil Construction Management (4).
Fundamental tools of heavy civil highway construction management. Topics include contract management, scheduling, cost estimating, cost control, conflict management, negotiating, team building, quality control, safety, and a capstone project. Prerequisites: CMGT 447 and CMGT 344 or CMGT 345. Upon successful completion of this course, the student will be able to:
Systematically plan, organize, manage, control, and document heavy civil construction job site activities.
Develop the following types of documentation: RFI' s, shop drawings, cost control, jobsite layout plan, meeting minutes, traffic plans, safety plans, quality plan, change orders, and payment schedule. Use project management terminology and rationale
behind project management.

Review an actual project and identify good and bad project management techniques. Review and critic new technologies that are applicable to the construction industry.

## CMGT 460. Concrete

 Construction (4).Manufacturing and testing of concrete, field practices, and formwork. Two hours lecture and two hours laboratory per week. Prerequisites: IET 312, CMGT 346 or CMGT 347, and CMGT 440 or CMGT 441.
Upon successful completion of this course, the student will be able to:
Describe the components of portland cement concrete, including the five types of portland cement and their chemical components, their proportions and their purpose. Demonstrate an understanding of liquid and mineral admixtures, their function, advantages and disadvantages. Explain in detail how concrete is batched, mixed, transported, properly placed, consolidated and cured and the problems that can develop if proper procedures are not followed. Accurately design a concrete mix for a particular application using the volume method, including proper moisture adjustments for aggregates. Accurately calculate anticipated shrinkage crack spacing in an Un-reinforced concrete slab on grade and accurately calculate the required reinforcing steel to prevent such cracking. Accurately calculate lateral pressures of concrete priced in column and wall forms and design these forms. Demonstrate the ability to physically perform a laboratory slump test, complete a laboratory report on a slump test and properly prepare a concrete compression test cylinder. Also cap a test cylinder and properly conduct a compression test of the concrete cylinder.
CMGT 461. Pavement Design and Construction (4).

An introduction to flexible and rigid pavement design and construction including pavement types, materials, construction methods, and maintenance concerns. Prerequisites: IET 312, and either CMGT 346 or CMGT 347.

Upon successful completion of this course, the student will be able to:
Describe different pavement types and be able to explain the circumstances for which they are best suited.
Apply pavement design basics to an actual construction situation.
Identify the physical properties of pavement materials and how they impact performance and construction.
Identify pavement construction techniques for various pavement types.
Examine and analyze highway pavement maintenance and rehabilitation techniques.
CMGT 481. Construction Management Capstone (4). Students work in teams to prepare a cost estimate, schedule, site mobilization plan, and safety plan and present to an industry representative for a negotiated construction project. Three hours lecture and two hours of lab. Permission by instructor. Course will be offered every year (Spring). Prerequisites: CMGT 346 or CMGT 347 and CMGT 455 or CMGT 456. Upon successful completion of this course, the student will be able to:
Plan, schedule, and estimate an appropriately sized commercial building or heavy civil project using a complete set of construction contract documents.
Prepare and present, using a team format, a construction project proposal to a panel of industry experts. The presentation will summarize the construction estimate, planned work schedule, construction sequence, safety plan, risk management
analysis, and site mobilization plan for the project.
Develop the ability to define team responsibilities and execute a work plan in a team environment.

## CMGT 485. Construction

Accounting, Finance, and
Contemporary Topics (4).
The process using LEED as a measurement for sustainable construction. The course covers benefits and mechanisms of green building, cost analyses, and professional problem solving. CMGT 452 and ETSC 552 are equivalent courses; students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: CMGT 265.

Upon successful completion of this course, the student will be able to:
Identify and apply LEED terminology.
Identify and apply the LEED rating system criteria. Identify and discuss prerequisites, credits and points for each credit category. Evaluate a project to calculate the total LEED points possible and identify the most probable certification level for the project.
CMGT 488. Professional Certification (1). A
comprehensive review of professional construction management principles and technical skills in preparation for a national certification examination. Grade will either be $S$ or $U$. Prerequisites: CMGT 444 or CMGT 445. Upon successful completion of this course, the student will be able to:
Properly identify working drawing symbols and techniques and common construction materials and their usage.
Demonstrate how to properly set up a set of differential and profile leveling notes, how to make surveying taping corrections and how to properly make bearing calculations for a traverse.

Demonstrate a working knowledge of the principles of statics and strength of materials, including construction of free body diagrams, shear and moment diagrams and the calculation of shear and normal stresses. Complete a quantity takeoff and pricing for materials, equipment and labor for a commercial project, including evaluation of subcontractor bids.
Demonstrate an understanding
of the construction legal contract system and the relevant documents, including AIA A201 and the common on-site documents utilized to manage a construction project. Identify and describe basic electrical and mechanical systems and components. Create a network schedule and properly analyze this schedule, including the critical path and float times.

## CMGT 495. Construction

 Management Competition Preparation (1). Students work in teams to prepare for construction management competition. Teams develop cost, schedule, site layout, and safety plans for a major construction project. Students will compete in the Associated Schools of Construction competition in Reno, Nevada. May be repeated for credit. Grade will either be S or U . Prerequisite: CMGT 344. Upon successful completion of this course, the student will be able to:Identify an effective team structure. Prepare for a construction management competition.
Apply critical thinking and express a construction contract proposal based on the principles of construction estimating, scheduling, planning and project management.
CMGT 496. Individual Study
(1-6). May be repeated if subject is different.

CMGT 497. Honors (1-12).
Prerequisite: admission to department honors program.
CMGT 498. Special Topics (1-6). May be repeated if subject is different.
CMGT 499. Seminar (1-5).
CMGT 267LAB. Plane Surveying Field Session (1).
One surveying field session weekly. Co- or prerequisite: CMGT 267.
Upon successful completion of this course, the student will be able to:
Explain the components of surveying instruments and demonstrate a working knowledge and ability to properly care for these instruments.
Complete a 1500 -foot level loop within fourth order accuracy.
Complete a five sided closed traverse and corresponding calculations to third order accuracy.
Perform specific applications of surveying techniques pertaining to grade staking, earthwork volumes and building layout. Demonstrate the ability to perform a stadia survey and create a site map, including topography.
Demonstrate the ability to accurately and neatly record fieldwork.
CMGT 267LABHC. Heavy
Civil Highway Field Session
(1). One surveying field
session weekly. Co- or prerequisite: CMGT 267. Upon successful completion of this course, the student will be able to:
Complete a 1500 foot level loop within fourth order accuracy.
Complete a five sided closed traverse and corresponding calculations to third order accuracy.
Perform calculations for traverse closure and area. Perform specific application of surveying techniques and calculations pertaining to grade staking and earthwork volume calculations.

Create a horizontal curve and spiral curve including the laying out of slope and grade stakes.
Demonstrate the ability to accurately and neatly record field data.
CMGT 343LAB.
Construction Estimating I
Laboratory (1). One
estimating computer laboratory
session weekly. Prerequisite:
CMGT 343.
Upon successful completion of this course, the student will be able to:
Develop and utilize
spreadsheets for quantity
takeoff.
Develop and utilize
spreadsheets for construction
labor estimates.
Accurately develop and utilize spreadsheets to prepare a parametric estimate. Create and utilize an estimating spreadsheet to compile and summarize the estimate for a small building project.
CMGT 344LAB.
Construction Estimating II
Laboratory (1). One
estimating computer laboratory
session weekly. Prerequisite:
CMGT 344.
CMGT 345LAB. Heavy Civil
Estimating II Laboratory (1).
One weekly estimating
laboratory session. Co- or
prerequisite: CMGT 345.
Upon successful completion of this course, the student will be able to:
Identify the resource requirements required (materials, labor, equipment, time and money) to build heavy civil projects.
Identify and reference safety items, understand how safety concerns are addressed at the job site, and how it must be planned for during an estimate. Develop basic general heavy they impact the finished project.
Work in teams and estimate an entire heavy civil project. Obtain proficiency in Heavy Bid, a version of heavy civil Estimating Software.

## CMGT 495A. Construction Management Competition Preparation - Fall (2).

Students work in teams to prepare for the Associated Schools of Construction (ASC) competition. Teams develop cost, schedule, site layout, and safety plans for a major construction project. Students will compete in the ASC competition in Reno, Nevada. One hour lecture and two hours lab per week. Permission by instructor. Course will be offered every year (Fall). Prerequisite: CMGT 344 or CMGT 345.
Upon successful completion of this course, the student will be able to:
Plan, schedule and estimate a small commercial project given a set of construction drawings and contract documents. Prepare and present a group presentation to a panel of industry experts. The presentation shall summarize the construction estimate, schedule, construction sequence and costs of the project.
Define team responsibilities and work in a team environment. Summarize, record and evaluate information pertaining to a competition and present it in a format that will be useful for teams in the upcoming years.
CMGT 495B. Construction
Management Competition
Preparation - Winter (2).
Students work in teams to
prepare for the Associated
Schools of Construction (ASC) competition. Teams develop cost, schedule, site layout, and safety plans for a major construction project. Students will compete in the ASC competition in Reno, Nevada. One hour lecture and two hours lab per week. Permission by instructor. Course will be offered every year (Winter). Prerequisite: CMGT 495A. Upon successful completion of this course, the student will be able to:

Plan, schedule and estimate a small commercial project given a set of construction drawings and contract documents. Prepare and present a group presentation to a panel of industry experts. The presentation shall summarize the construction estimate, schedule, construction sequence and costs of the project.
Develop the ability to define team responsibilities and work in a team environment. Demonstrate the ability to summarize, record and evaluate information pertaining to a competition and present it in a format that will be useful for teams in the upcoming years.
COM 201. Introduction to Mass Communication (5).
This course critically reviews media from historical, societal, cultural and political viewpoints. It examines the impact of mass media on consumers as individuals and on society, and also improves media literacy.
Upon successful completion of this course, the student will be able to:
Define and Describe the history of Mass Communication. Distinguish the functions, theories, and practices of mass communication in a global society.
Compare and contrast the ways in which culture and mass communication interact and affect each other, both wit in American culture and on a global level.
Analyze the diversity of mass communication in all its forms, and practice media consumption habits that are necessary for the communication professions. Evaluate the role of the First Amendment in mass communication.
Recognize and explain the models of mass communication and their connection to the models of human communication.

COM 202. The First Amendment: Rights and Responsibilities (5). This class explores the First Amendment freedoms as the foundation of a free, tolerant and democratic society. The communicative rights and responsibilities of citizens in a democracy governed by such an amendment are also examined. SB-Perspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Identify and describe the historic arc of how the First Amendment freedoms developed in the United States, beginning in the 1600 s. Identify, describe and discuss the guarantees of the First Amendment, as well as the exceptions for what it does not cover.
Identify, describe, discuss and apply landmark First Amendment cases to current and potential controversies. Identify, explain and discuss various approaches to how the courts balance First Amendment rights against other personal rights and/or societal interests. Identify and explain how First Amendment rights are central to creating a diverse and tolerant society, and how the freedoms have been used to advance the civil rights of previously marginalized groups, creating a more diverse and tolerant society. Demonstrate an understanding of the ethical and responsible use of First Amendment freedoms and how to apply them to personal and contemporary issues. COM 204. Radio Studies (2). Fundamental survey of the Radio Broadcast industry. Emphasis on understanding cultural history, corporate hierarchy, industry standards, economic conditions and types of audiences. Course will be
offered every year (in Fall). Prerequisites: COM 201 and COM 202 and FILM 215 or instructor permission. Upon successful completion of this course, the student will be able to:
Diagram Radio industry structure and job functions. Analyze implications of historical and ongoing changes in the radio industry. Recognize key terms and important people pertinent to the Radio Industry. Critically analyze the role of radio in contemporary society.
COM 205. Radio Production
Skills (4). A combined lecture and skills development course that teaches students
comprehensive skills in radio production. Course will be offered every year (in Winter).
Prerequisites: COM 201 and COM 202 and FILM 215 or instructor permission. Corequisite: COM 304.
Upon successful completion of this course, the student will be able to:
Critically analyze various pieces of Radio production. Demonstrate ability to create a Radio Station's audio image. Utilize learned software skills to create original radio production projects. Demonstrate ability to conduct interviews for different types of radio features.
COM 207. Introduction to Human Communication (5). Introductory course designed to allow students to develop effective communication skills across a variety of human communication contexts including public speaking, interpersonal relationships, and professional settings.
Upon successful completion of this course, the student will be able to:
Define and describe the
process of human
communication.
Demonstrate skills in public speaking.
Develop knowledge and skills related to group
communication and group problem solving.
Describe and interpret communication skills in interpersonal communication contexts.
Distinguish and apply communication conflict management skills. Name and describe the multiple areas of study in the field of Human Communication and analyze the connection between Human and Mass Communication.

## COM 208. Introduction to

 Public Relations Writing (4)Integrated approach to media
writing emphasizing public relations writing styles. Upon successful completion of this course, the student will be able to:
Prioritize and organize information and develop news judgement.
Write clearly and cleanly, using appropriate professional competencies in grammar, spelling, punctuation and style. Structure a news story in three basic formats: prints, broadcast and public relations. Explain the demands of accuracy and completeness. Write quickly to meet deadlines.
COM 222. Media Literacy in the Digital Age (5). This course enables students to be discerning, perceptive, ethical and responsible consumers and creators of the mass media that pervade their lives in the digital age - whether that be news, entertainment, advertising or social media. Course will be offered every year (Fall, Winter, Spring, Summer)
Upon successful completion of this course, the student will be able to:
Explain the role that mass media play in shaping societal and cultural norms
Explain how the digital universe has upended traditional theoretical models of mass media creation, profitability, consumption and influence.

Explain the role that mass media play in impacting individual health and wellbeing by influencing our thoughts, attitudes and actions.
Explain how individuals receive and interpret mass media differently, based on their cultural background, their prior knowledge and experience, their values and beliefs.
Distinguish "fake news" based on rumor, opinion, assertion and lies from legitimate news based on objective, verifiable evidence.
Evaluate a news source's reliability and credibility, using digital tools.
Identify the techniques that advertisers and influencers whether corporations, political parties or activist groups - use to motivate people to take action (e.g. flattery, repetition, fear, humor.)
Identify the techniques that the makers of TV, films and games employ to entertain and inform their viewers and users (e.g. narrative structure, character representation.)
COM 226. Introduction to Writing and Reporting for Digital Journalism (5).
Students will receive an introduction to writing and reporting of journalistic stories for print and online media. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the variety of ways newsrooms structure their coverage and deploy their staff.
Create a blog, and demonstrate understanding of the principles of writing for blogs and how to integrate visual and interactive elements into their posts. Produce effective leads, nut graphs, story structure. Find story ideas, interview sources, use observation, collect appropriate documents. Demonstrate understanding of the qualities and values of news-what makes something "newsy" and what factors will
determine its "play" in a media outlet.

## COM 251. Small Group

Dynamics (4). Analysis and practice of communication principles affecting effectiveness of small group discussion. Includes theory and practice of leadership and problem solving in small groups. Prerequisite COM 207.
Upon successful completion of this course, the student will be able to:
Describe the primary divisions of group communication theory to include stages of group growth and development, leadership, problem solving, functional roles, and communication norms
Increase skill in the evaluation of group process. Increase ability to apply leadership theory and concepts. Increase knowledge and ability to solve problems in groups. Increase ability to develop effective working relationships with other group members. Distinguish between content and process variables in group communication.
COM 253. Interpersonal Communication (4).
Investigation of theory, research, and practice of the role of communication in effective interpersonal relationships. Prerequisite: COM 207.
Upon successful completion of this course, the student will be able to:
Explain how verbal and nonverbal processes work and intercultural and interactions. Demonstrate a practical use of interpersonal communication theories through classroom activities and assignments. Identify the impact of cultural diversity in interpersonal relationships.
Apply writing skills in the development of a written project on an interpersonal communication variable. Identify the variables in the development of relationships
related to a significant other, friendship, and work-related relationship
Analyze and evaluate their own interpersonal communication behavior and skills and selfassessment
COM 255. Emerging Leaders (Put on reserve 9/16/15.) (2).
Course is designed to develop student leaders on campus through leadership training, leadership experiences, self analysis, and familiarization with leadership opportunities at CWU. Put on reserve 9/16/15. Will go inactive $8 / 24 / 18$. Upon successful completion of this course, the student will be able to:
Identify the different styles of leadership, their strengths and weaknesses, and be able to apply them to their own leadership style.
Demonstrate the importance of group development and communication in leadership functions.
Incorporate different leadership strategies to reach and motivate diverse groups.
Develop and budget, seek funding, and monitor expenditures in conducting a project.
Conduct an assessment of a project, collect feedback and integrate feedback into future plans.
Communicate effectively with different audiences through the media and other publicity efforts.
COM 270. Introduction to Public Relations (4). The basic concepts of public relations; the tools and media used in communicating with the variety of publics.
COM 280. Advertising
Fundamentals (4). An introductory course that introduces the principles of advertising, including; ethics, social issues, professional practice, and the application of advertising principles to problems of business, nonprofit, and political issues. Prerequisite: COM 201.

Upon successful completion of this course, the student will be able to:
Identify the current forms of advertising in use in the United States and internationally. Identify the major advantages and disadvantages of each form of advertising. Critique and evaluate the processes involved developing advertising and integrated marketing campaigns. Identify and explain creative approaches to advertising Show an understanding of basic concepts of research for communication, including demographics, psychographics, surveys, focus groups and other instruments.
Demonstrate an understanding of the messages given by advertising.
Develop and apply your oral and written communication skills.
COM 290. Cooperative Field
Experience (1-6). Internship
designed to explore career opportunities in the major. Open to all students. May be repeated for credit. Grade will either S or U .
COM 296. Individual Study (1-6).
COM 298. Special Topics (16).

COM 299. Seminar (1-5).
May be repeated if subject is different.
COM 300. Media Research
(5). Development, understanding and application of media research theories, methodologies and techniques. Prerequisite: admission to either the communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Identify/explain and/or demonstrate knowledge of the theoretical and methodological skills necessary for producing rigorous research on traditional and emerging media. Identify/explain and/or demonstrate knowledge of traditional and new media
research tools and to develop a critical approach to the use and misuse of these methods and/or technologies.
Develop hands on experience and understanding of the current cultural changes in media production and consumption.
Understand and explain the difference between qualitative and quantitative research methodologies.
Develop professional audience research methodologies applicable to traditional and new media.
COM 301. Public Speaking for Business and
Organizations (2). The course develops student knowledge and basic oral communication skills with an emphasis on presentation skills focusing on organization, delivery, and forms of support as applied in different professional contexts. Upon successful completion of this course, the student will be able to:
Demonstrate the knowledge and skill necessary to effectively organize a public presentation.
Demonstrate the knowledge and skill necessary to deliver at least two different types of public presentations. Describe the typical public speaking contexts and opportunities found in most American businesses. Develop increased skill in analyzing the public speaking of others.
Develop applicable support materials for an individual or group presentation. Effectively respond to questions that follow a public presentation.
COM 302. Intercultural Communication (4). The objective of this course is to give the participants the skills and understanding necessary to improve communication with peoples of other nations and cultures. SB-Perspectives on World Cultures (W).
Prerequisite: sophomore standing or above.

COM 303. Online and Social Media Strategies (5). Students will learn how to create online websites and use social media to develop their "brand" online. They will use that "brand" to engage with appropriate audiences and create visibility for their work, skills or clients. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Create and design a functional website using a popular free and open-source platform, picking a domain name and layout appropriate to the student's chosen "brand" identity.
Populate the website with content appropriate to the site's brand identity (blog posts, examples of professional work, infographics, slideshows of photographs, audio clips, short video productions, etc.) using appropriate plugins and widgets.
Identify the strengths, weaknesses and suitability of the most popular social media sites and how to leverage those platforms to enhance their site's brand identity. Use social-media management tools.
Use web analytics applications and the analytics tools provided by their chosen social media outlets in order to assess their website and social media accounts' performance. Explain the importance of credibility and accuracy in building a brand and developing a loyal audience. Identify and describe the societal issues raised by online and social media, such as privacy, defamation, cyberbullying and online identity.

## COM 304. Radio

Programming Application
(5). A rotational laboratory
focusing on the individual methods, principals, and best practices of Radio
Broadcasting. Students will
learn and execute real-life Radio Broadcast programs of various formats on KCWUFM, taking on a rotation of responsibilities. May be repeated up to 15 credits. Course will be offered every year (Fall, Winter and Spring). Prerequisites: COM 201 and COM 202 and FILM 215 or instructor permission. Upon successful completion of this course, the student will be able to:
Prepare and produce a Radio program.
Demonstrate the operation of basic Radio studio equipment.
Practice and perfect their on-air delivery and voice skills in order to produce a deliverable. Successfully complete the certification process for the MusicMaster Radio
Programmers course.
COM 305. Advertising
Copywriting (4). Students will learn to write for the advertising industry, including a study of effective advertising copy, and the methods of creating project proposals and project assessments.
Prerequisite: COM 280.
Upon successful completion of this course, the student will be able to:
Formulate creative and practical solutions to wordbased communications problems in advertising. Demonstrate the ability to formulate and format advertising proposals, research documents in advertising, and other business correspondence. Identify and qualify the needs of a client in the advertising field.
Create advertising copy that meets the needs of a client. Show the ability to create copy that meets the needs of several different media formats, including television, print, and the Internet.
Demonstrate a facility with proper English and grammar in business writing.
COM 308. Public Affairs
Reporting and Writing (5).
Students will learn more
advanced methods of writing and reporting of journalistic stories for print and online media, with a focus on how to cover public affairs news beats. Course will be offered every year (Fall). Prerequisites: COM 226, and admission to the communication department majors.
Upon successful completion of this course, the student will be able to:
Identify key sources on their public affairs "beat" who can be regularly interviewed to reveal stories important to their news outlet's audience.
Locate and recognize where all the different important public affairs beats conduct their business and their key players and issues
Recognize the difference between records and documents available to the public and those that aren't and how to request and use them for stories.
Recognize the difference between what/when/how government councils/commissions/committ ees can legally discuss government business in private versus what and when and how they must do so with public notice and in the public eye. Write public affairs stories that include backgrounding, interviews, documents, data and observation that are relevant to their audience. Write stories about government agency meetings that are accurate and relevant to local readers
Use social media to help cover public affairs beat and to disseminate stories and engage with their audience.
COM 309. Writing Broadcast Advertising (4). Principles and techniques used in writing effective radio and television commercials, public service announcements, and promotional copy. A writing intensive course. Prerequisite: admission to either the communication studies, public
relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Understand and be able to apply the basic mechanics of good copywriting style for both radio and television commercials.
Learn how to organize a broadcast commercials and/or public service announcements targeting consumer behaviors and motivations.
Understand and be able to apply the various broadcast commercial formats in writing spot copy.
Learn how promotional broadcast copy contributes to a broadcast campaign. Students will also be introduced. to writing corporate media script writing and VNRs.
COM 310. Writing and Reporting for Broadcast Journalism (5). Writing, news gathering, and reporting for the electronic media. Includes on-the-scene coverage and interviewing. Prerequisite: admission to either the communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Identify the guidelines and rules of broadcast news copy writing.
Demonstrate guidelines for conducting broadcast interviews.
Demonstrate guidelines for conducting on the scene news stories.
Demonstrate the requirements of coverage of speeches and meetings
Identify news values used in reporting events.
Identify the beats of a typical community.

## COM 312. Introduction to

Non-Profit Leadership (4).
This course introduces key elements in nonprofit organization leadership, and makes brief reviews of various nonprofit management topics,
such as strategic missions, board development, leadership roles, fundraising, staffing, performance evaluation and accountability, nonprofit marketing and legal issues. Prerequisite: admission to the nonprofit major, minor or certificate, public relations major, comm. major or permission of instructor. Upon successful completion of this course, the student will be able to:
Identify the major aspects of non-profit leadership, including board development, strategic planning, staff management, performance and evaluation, fundraising, nod legal issues
Demonstrate an understanding of the basic principles and practices of non-profit leadership and enhance the development of the leadership competencies nece 11 sary to effectively lead in nonprofit organizations
Use analytical thinking and writing to present and communicate the ideas of nonprofit management and leadership
COM 315. Studies in
Communication (1).
Specialized topics in communication providing depth of knowledge, expand theoretical exposure, and/or practical communication skills. By permission. May be repeated for credit under a different sub-topic. Grade will either be S or U .
Upon successful completion of this course, the student will be able to:
Identify and describe special topic communication concepts and/or theories.
Demonstrate how special topic in communication relates to real-life scenarios. Incorporate special topic in communication into their own research project.
COM 321. Visual Storytelling
(5). The methods used to communicate journalistic stories effectively and ethically using still photography and
video. Course will be offered every year (Spring).
Prerequisite: admission to the digital journalism major or instructor permission.
Upon successful completion of this course, the student will be able to:
Employ basic techniques of visual composition such as rule of thirds, framing, perspective, balance and contrast. Modify the settings of a camera (or other device used to take photographs) to obtain the effects produced by shutter speed, aperture, lighting, color and lens choice in visual imagery.
Identify and differentiate between general news, spot news, feature news, portraits and sports images and apply strategies for capturing effective storytelling imagery in each category.
Write captions that identify the people, places and/or objects in the image and put them in perspective for the viewer. Plan, propose and create a photo news story.
Create news interviews and videos.
Evaluate the impact and ethical considerations of image
manipulation.
COM 322. Introduction to
Studio Production (4). A
combined lecture and skills
development course that introduces students to the production elements of a television show with emphasis on the function and operation of studio lighting, audio, and cameras. Prerequisites: film or braodcast journalism major status. Co-requisite: COM 322LAB.
Upon successful completion of this course, the student will be able to:
Describe the personnel functions in studio production. Describe equipment functions and safety features of a studio.
Construct a pre-production
plan for a studio program.
Direct a studio production.

Perform as a crew member in all other areas of studio production.
COM 328. Scriptwriting for Interactive Entertainment (Put on reserve 9/16/15) (4).
An introduction to the basic format, story and style elements for interactive entertainment (multiplot narratives, games, simulations, etc.). Students examine the relationship between interactive design, user navigation and storytelling. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisites: COM 267, and admission to the communication or film major.
Upon successful completion of this course, the student will be able to:
Identify/explain the historical and philosophical framework of interactive writing practices in the larger context of storytelling. Identify/explain and demonstrate a knowledge of the aesthetic and rhetoric of the computer, multimedia, gaming and interactivite storytelling. Identify/explain and demonstrate a basic skills-set in multidimensional interactive writing, development of design schemes for the final media experience of the intended audience, have a sound understanding of project management, game development, interactive design.
Identify/explain and demonstrate a basic skills-set in the conceptualization, visualization and production processes for interactive writing through a range of new media writing; from Web copy to procedural writing, information architecture to game and interaction design.
COM 333. Communication
Ethics (4). The study of ethical issues in communication. Prerequisite: COM 202 and admission to major.
Upon successful completion of this course, the student will be able to:

Identify ethical issues involving media communications.
Understand various approaches used to solve or resolve issues involving media communications Understanding how to apply a model of moral reasoning (e.g. the "SAD" process used to solve or resolve ethical issues). Knowledge of various codes of ethics as they apply to specific professions within the
communication field.
Knowledge of the historical, historical, political, and societal context for the issues
they must resolve with analysis.
COM 340. Public Communication: Theory and
Practice (4). Survey of rhetorical theory and practice from ancient to modern times. Emphasis on rhetorical application to public speaking settings. Prerequisite: students must be admitted to communication studies, public relations, film or journalism major in order to register for this course.
Upon successful completion of this course, the student will be able to:
Identify/explain and demonstrate understanding of
how the spoken word can influence people
To increase the student's ability
to effectively create and deliver a public speech.
To enhance students' ability to identify principles of public discourse and how it shapes and is shaped by events-both historical and contemporary, as well as influences from other societies/cultures
To learn the processes whereby speaking becomes a communicative act where the speaker and the audience mutually create meaning. Identify/explain and demonstrate the goal of rhetorical training- a good person speaking well about significant topics to positive effect.

COM 341. Introduction to Field Production (4). A combined lecture and skills development course that introduces students to the principles and techniques of location production and visual storytelling for narrative and documentary film.
Prerequisites: film or broadcast
journalism major status or
instructor. Co-requisite: COM 341LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of fundamental processes of telling a visual story using single camera production methods.
Employ appropriate image composition, audio recording, and operational functions of both camera and audio equipment.
Employ lighting techniques
and safety procedures.
Complete pre-production
planning for a single camera production.
Employ video editing software from ingest of media through final project delivery.
Explain production crew roles and professional set etiquette.
COM 342. Broadcast News
Producing (4). Principles and techniques used in producing newscasts for broadcast news, with emphasis on television news. Prerequisite: Com 310 and admission to the digital journalism major.
Upon successful completion of this course, the student will be able to:
Operate producing software that parallels software used in newsrooms
Identify the guidelines and rules of broadcast news producing
Develop flow and continuity within a newscast to attract and retain viewers
Write effective news teases Use live shots, as-if-lives and studio hits to improve pacing and to place emphasis on stories

Time a show and make adjustments if the show is "heavy" or "light." Structure and restructure stories to produce different newscasts with different formats and goals. Field produce a story to better communicate the message of the story using tools such as stand- ups, interviews, as-iflives, and other producing tools.
COM 345. Business and Professional Speaking (4).
Oral communication in career and professional settings with focus on public presentations, briefings, and persuasion.
COM 347. Copy Editing (4). Students will learn the editing process, how to edit for mechanics and content, including Associated Press style, as well as how to write headlines and cutlines. Prerequisites: admission to the major (i.e. com studies, public relations, film, journalism, English writing specialization), or professional writing certificate program or permission of the instructor. Upon successful completion of this course, the student will be able to:
Edit stories for ethical and legal considerations.
Work with reporters to help them improve their work in all phases, from generating story ideas, to providing reporting guidance arid writing clean, accurate and compelling copy. Understand the editing process and the various types of editors in media organizations - copy editors, content editors, section editors, design editors, wire editors, supervisory editors, managing editors and editors-in-chief.
Learn to write headlines and cut lines according to the conventions of the profession. Learn the ethical and legal issues involved in the selection of photos and other visual elements that accompany stories.
Understand the importance of design and layout, and how to
spot opportunities to incorporate graphics and other "entry points" into story packages.
COM 348. Publication
Design (4). Publication design, the theories of graphics, headlines, and text. Management of the design process. Prerequisite: admission to either the English writing specialization, communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Demonstrate comprehension of the principles of good publication design. Demonstrate ability to apply principles of page design for daily, weekly or monthly publications.
Learn how to manage the sometimes-warring aspects of publication design: the physical vs. the intellectual, the form vs. the content, the design vs. the journalism, the productmaking vs. the story-telling.
COM 350. Persuasion and
Culture (4). Role of
persuasion in society, elements of human motivation, techniques, and appeals of the persuader. Prerequisite: admission to either the communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Develop ability to critically analyze persuasive messages Increase skill in the development of oral persuasive messages.
Understand and apply various ethical criteria to persuasive strategies and campaigns. Increase knowledge and ability analyze persuasive appeals found in advertisements. Develop ability to analyze the persuasive actics of public speakers through study of cultural themes, evidence, emotion, and credibility.

COM 351. Visual
Anthropology (4). Provides methodological, theoretical, and practical background to produce and evaluate imagery in films and video; guidelines and practice of image presentation/manipulation in anthropological and social contexts. COM 351 and ANTH 351 are cross-listed courses; students may not receive credit for both. Prerequisites:
ANTH 130 or ART 225 or
COM 321 or COM 330.
COM 362. Conflict and Communication (4).
Communication and decisionmaking strategies for conflict resolution. Negotiating agreement and mediating differences in interpersonal and organizational settings. Prerequisite: admission to either the communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Identify causes of human conflict and the common ways they are expressed Identify steps in the process of conflict resolution through negotiation and formal mediation
Demonstrate skill in negotiation and mediation
COM 365. Organizational
Communication (4). Function,
forms, and patterns of communication in organizations. Effects of organizational structures and dynamics on communication. Methods of evaluating communication policies and practices as an aid to organizational management. By permission. Prerequisite: admission to either the communication studies, public relations, or journalism major or permission of instructor.
Upon successful completion of this course, the student will be able to:
Define corporate culture, leadership, teamwork, diversity, and ethics, and
discuss how they impact organizational communication. Explain the complex role communication plays in developing and maintaining an organization's culture.
Be able to explain bow specific communication behaviors may be used to manage opposition to change in organizational contexts.
Be able to discuss the nature of conflict in organizational context and how to apply message strategies to manage
such a conflict and bolster working relationships. Compare and contrast major theories of organizational communication.

## COM 367. Narrative

Screenwriting (On reserve as
of $9 / 16 / 15$ ) (4). Writing screenplays in combination with the study of models and techniques. COM 367 and ENG 367 are cross-listed courses; students may not receive for both. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisites: either COM 201 or FILM 250. Upon successful completion of this course, the student will be able to:
Identify the pardigmatic structure and features of a screenplay.
Demonstrate their understanding of appropriate film terminology.
Develop a screenplay from story concept and premise. Identify and adapt the Writer's Guild screenplay format.
Develop and build characters in a screenplay.
Write individual scenes according to five basic principles including backstory, arena, character spines, story arc, plot development. Write and revise a completed screenplay
COM 369. Mass Media and
Society (4). Relationship of the
mass media to social
institutions; including philosophy, responsibilities, regulations, and criticism. Variable topic, may be repeated for up to 8 credits
under a different title. COM 369 and SOC 369 are crosslisted courses; students may not receive credit for both. May be repeated for credit. COM 370. Advanced Public Relations Writing (4).
Practical instruction in persuasive writing, news releases, broadcast material, speeches, institutional messages, newsletter articles, employer publications, backgrounders, features, and corporate profiles.
Prerequisites: COM 208, and COM 270, and admission to the public relations major, or non-profit minor, or instructor permission.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the essential role of strategic problem solving and creative thinking in relationship to the larger strategic public relations campaign.
Explain technical writing practices and communication models that directly affect the public relations industry. Demonstrate understanding of practice, theory and ethics of public relations through strategic writing skills. Demonstrate advanced PR writing skills used in PR practice today.
Use AP Style writing.
COM 371. Event Planning
and Management (4). This
course offers a comprehensive study of the event management field. The course will enable participants to develop an innovative and multi-skilled approach to planning and coordination events. Topics include: legal issues in event planning and coordination promotions, design, catering, and other relevant topics. Prerequisite: admission to the communication or recreation and tourism major, minor or certificate program or permission of instructor. Upon successful completion of this course, the student will be able to:

Introduce students to the field of event management Provide an overview of the history, principles, practices and techniques of event management.
Introduce students to the Event Management Process that includes research, design, planning, coordination and evaluation.
Provide information relating to legal, ethical and risk management issues in the field. Explain the importance of volunteers in event management and successfully demonstrate volunteer orientation
COM 375. Interviewing Principles and Techniques
(4). Examination of the basic principles and techniques of interviewing and their application in informational, employment, and persuasive/counseling contexts.
Extensive in-class and community experience in interviewing provided. Prerequisites: COM 207 and admission to a communication major.
Upon successful completion of this course, the student will be able to:
Identify, explain, and apply general theoretical principles related to interviewing. Identify the functions and techniques for the three major components of an interview: the opening, the body, and the dosing.
Construct an interview guide containing a variety of primary and secondary questions following a sequence appropriate for the purpose of the interview.
Write a job description, cover letter and resume appropriate for a position you intend to apply for within the next five years.
Learn to be an interviewer and interviewee
Distinguish between legal and illegal laws in accordance with the Equal Employment Opportunities Office.

COM 380. Non-Verbal
Communication (4).
Fundamentals of nonverbal communication including codes, relationship to biology and culture, usage, and interrelationships. COM 380
and ANTH 380 are cross-listed
courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify channels of non-verbal communication
Integrate the contribution of biology and culture to nonverbal behavior
Identify the role of non-verbal communication in interactions. Identify meaning of non-verbal communication in contemporary US culture.

## COM 382. History of

 American Journalism (4). Survey of American journalism since colonial times; emphasis on understanding the evolution of journalism in the United States and the changing technological, social, and cultural trends affecting print and broadcast journalism. Prerequisites: COM 201 and admission to a communication major.Upon successful completion of this course, the student will be able to:
Relate the historical evolution of journalism as an institution and as a social and cultural force in American society. Develop a critical approach for examining the historical evolution of print and broadcast journalism in America.
Ability to juxtapose the historical development of print and broadcast journalism industry, technology and/or content with the social context of production.
Describe and analyze how diverse groups have been covered by mainstream journalism and how they have used media to voice their concerns.
Demonstrate knowledge of how the chronological
development of journalism as an industry has become a part of American history and, how journalism has shaped American history and our sense of it.

## COM 388. Advertising

Planning (4). Development of media strategies in advertising campaigns, including analysis of research, making useful media buys, integrating multiple objectives in the media message, and developing an assessment plan for effectiveness of message. Prerequisite: COM 280.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to determine the needs of a client through interviewing them and reading of current research. Create a basic media plan for an advertising client demonstrating this knowledge. Know the terminology associated with media planning Understand how to read and apply core planning concepts such as index numbers, people metering, psychographics, and demographics.
Read research instruments used by the advertising planner. Create and communicate a media plan for a client.
COM 396. Individual Study (1-6). May be repeated if subject is different.
COM 397. Honors (1-12).
Prerequisite: admission to department honors program.
COM 398. Special Topics (1-
6). May be repeated if subject is different.
COM 399. Seminar 1-5. May
be repeated if subject is different.
COM 401. Communication
Theory (4). Examination of human communication on an individual, interpersonal, and public level. Exploration of the relationship between communication theory and the practice of communication in various professional settings.
Prerequisite: admission to
either the communication
studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Articulate the basis of theory and its relationship to effective behavior.
Demonstrate understanding of communication discipline.
Use communication theories to analyze communication problems and to suggest effective strategies to overcome the problems. Describe the major contexts in communication.
Incorporate communication theories in describing the role of communication in interpersonal relationships. Describe at least three cultural differences in communication.
COM 402. Gender
Communication (4). Analysis of gender role development in females and males with focus on effective relationship development between sexes. Analysis and development of communication skills useful in cross-sex friendships, working relationships, and romantic/family relationships. Prerequisite: admission to either the communication studies, public relations, film, or journalism major.
COM 403. Family
Communication (4). This
course is designed to provide an overview of family dynamics and the processes that influence family communication and family functioning. FCL 403, COM 403 and FCL 503 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Attain a consistent communication focus in viewing and understanding family life.
Demonstrate the utility of applying theoretical frameworks to questions about family communication. Demonstrate an ability to apply critical thinking to
contemporary family forms and functions.
Identify dysfunctional family patterns and their root causes. Articulate the importance of family communication rituals. Identify the role of communication for coping with stressors and mediating conflict.
COM 404. Radio Ratings and Revenue (2). This course explores the radio ratings and billing structure theory and practice, covering radio formats, radio markets, methodology and execution. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: COM 201 and COM 202 and FILM 215 and COM 304.
Upon successful completion of this course, the student will be able to:
Describe and evaluate the history of Radio advertising as a viable business model.
Demonstrate an understanding of radio ratings and billing structures
Analyze the components of an effective multi-media Radio campaign
Demonstrate the skills necessary for executing a large-scale, radio-relevant station event
COM 407. Advanced
Intercultural
Communication (4). In-depth study of theory and practice of intercultural, cross-cultural, cocultural and sub-cultural communication. Examination of the communication plays in these groups' interactions with each other and the relevant dominant culture.
Prerequisites: COM 302, and admission to the communication studies major, communication minor, organizational communication minor, or instructor permission.
Upon successful completion of this course, the student will be able to:

Articulate and defend a wellinformed definition of intercultural communication. Analyze the intercultural dynamics among organizational, interpersonal, family, technological and systemic communication. Apply various structural, interpersonal, cultural, technological and systemic approaches to communication to diagnose and solve intercultural problems. Apply communication research theory and intercultural communication theory to address problems in carious contexts.
COM 408. Feature Writing
(4). Skills needed to conceive, report, and write a wide range of feature stories for newspapers, magazines, and online publications.
Prerequisite: COM 226.
Upon successful completion of this course, the student will be able to:
Learn how to research and generate feature story ideas and develop unique angles
Learn how to conduct effective interviews for feature stories.
Learn about using observation as a reporting tool to capture scenes and anecdotes to make stories more vivid to the reader.
Learn how to use narrative techniques to construct narrative stories.
Learn how to write features about events
Learn how to write features about places.
Learn how to write profiles, both long and short.
Learn how to write features
based on issues and trends.
COM 409. Magazine
Freelancing (4). This entrepreneurial journalism course introduces students to the concepts of how to work as a freelancer, and to the basics of writing for magazines. Grade will be S or U . Prerequisite: COM 226 or instructor permission.
COM 420. Media Buying and Placement (On reserve as of

9/16/15) (4). Students learn the process by which companies purchase advertising, and how advertising buys are sold at the agency/corporate level. Students develop skills to calculate appropriate media buys. Put on reserve 9/16/15. Will go inactive $8 / 24 / 18$. Prerequisite: COM 280. Upon successful completion of this course, the student will be able to:
Conduct a media market analysis on behalf of a client. Understand the strategies for placing advertising in a variety of markets and media. Analyze the impact of new media forms have on advertising buys.
Prepare a proposal of media buys for a client.
COM 427. Grant Writing (4).
Students will learn how to evaluate nonprofit organizational needs, identify and research foundations and other funding organizations as potential sources of support, and grant proposal writing. Prerequisite: COM 312 and a nonprofit major, minor, or certificate, public relations major, communications major or by permission of instructor. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of and evaluate the various revenue streams available to nonprofit organizations and the advantages and disadvantages of grant writing.
Write competitive grant proposals, including a statement of need/rationale, implementation strategies, outcomes, personnel, evaluation, budget, attachments, and an executive summary.
Demonstrate knowledge of grant funding sources.
Demonstrate knowledge of assessment of grant proposals according to specified criteria. Compare and contrast fundraising through corporate donations versus foundation grants

COM 441. Documentary
Production (4). Detailed
analysis of the creative and technical elements of documentary production. Emphasizes "hands-on" application of production techniques for documentary storytelling from concept through to final product. May be repeated for credit. Combined lecture/workshop Prerequisites: COM 341 and admission to either the communication studies, public relations, film, or journalism major. COM 363 and ENG 363 is also a recommended prerequisite.
Upon successful completion of this course, the student will be able to:
Identify and critically discuss issues in contemporary documentary including ethics, objectivity/subjectivity, censorship, representation, reflexivity, responsibility to the audience, and authorial voice. Develop a critical approach for examining contemporary documentary storytelling and production techniques. Ability to research \& hone a documentary idea, develop and direct a crew, and maintain control through shooting and editing a documentary short. Complete a documentary short which demonstrates a sensitivity to the subject matter and authorial voice as well as mastery of industry standards in production techniques and aesthetics.

## COM 442.

CentralNewsWatch
Reporting (3). Gather, write, and report news stories for newscasts to be aired on cable and to also be distributed online and through social media. May be repeated up to 12 credits. Prerequisite: COM 310.

Upon successful completion of this course, the student will be able to:
Conduct broadcast interviews in a professional setting.

Develop news judgement and identify stories of significance to the audience.
Write broadcast style.
Produce an as-if-live report or
a studio hit to demonstrate
their ability to communicate story messages.
Rrewrite stories for use in other media.
COM 446. Pulse (2). Gather, write, report and design features and other articles for Pulse, the twice-quarterly student-written and student-run magazine. May be repeated for credit.
Upon successful completion of this course, the student will be able to:
Learn magazine industry
terminology, and deconstruct
the composition, format and
style of magazines and magazine articles.
Learn how to generate workable story ideas for a magazine.
Learn best practices for reporting, writing, photographing and/or designing magazine stories through workshops and practice.
Gain experience meeting publication deadlines. Learn how best to promote a magazine for its target audience.
COM 450. Advanced Public
Speaking (4). Preparation and delivery of specialized forms of public address. Writing speeches for others, advanced forms of style and support, and speeches for special occasions. Prerequisite: COM 340 or COM 345, and admission to the communications major. Upon successful completion of this course, the student will be able to:
Refine knowledge and skill in advanced principles of speech construction and delivery Practice specialized forms of public speaking such as speeches of introduction, acceptance, nomination, etc. Consider the problems of constructing speeches for others and write such a speech.

Deliver powerful and persuasive speeches that use careful word choice, unity of ideas, and an expanded conversational tone. This includes delivery has an effective sense of timing, effective emotion, and is pleasing visually Become a competent speaker by developing speaking repertoire, learning to select the best speaking style to meet the situation, and developing the skill to implement that style.
Develop the ability to evaluate their own speaking effectiveness and to learn from experience.

## COM 451. Communication

 Analysis and Research (4). Theory and practice in and study of methodology for gathering and analyzing data on human communication. Behavior identification, instrument types and uses, and assessment strategies.Prerequisites: COM 401 and admission to a communication major.
Upon successful completion of this course, the student will be able to:
Understand the primary research questions studied in the field of communication. Increase skill in the use of library resources related to the communication literature. Increase ability to develop and write an effective literature review related to a communication research issue. Increase knowledge of basic research design (both qualitative and quantitative) and the scientific method Increase ability to develop measurement tools and data gathering instruments such as surveys, questionnaires, and observation.
Increased ability to describe the process of communication research.
COM 456. History and Practice of Convergent Gaming (4). Course emphasizes the design and practice of role-playing games
with a significant focus on computer-based Massive Multi-user Online Role Play Games (MMORPGs). The course will look at the economics, culture, art, design, and history of the rapidly growing Role Playing Games market. Prerequisite: admission to either the communication studies, public relations, film, or journalism major. Upon successful completion of this course, the student will be able to:
Develop a comprehensive understanding of the history of convergence and gaming, from the games of the post printing era to gaming as it exists in the era of computer
communications.
Identify current trends in gaming, particularly r-ole playing games, and look at the difference between online gaming and pen and paper games.
Learn to study games in a research setting, either by studying the games themselves, or the social effects of playing the games.
Observe games being used for research.

## COM 460. Communication

Law (4). Understanding legal issues for the communication professions including libel, slander, privacy, copyright, and First Amendment. Prerequisites: admission to either the communication studies, public relations, film, or journalism major. Upon successful completion of this course, the student will be able to:
Describe and explain the
systems of laws in the U.S. and individual states (with emphasis on WA State) Explain the legal freedoms guaranteed by the First Amendment to the U.S. Constitution and explain how these freedoms Apply to the practices of advertising, broadcasting, journalism and public relations. Explain the following legal concepts and apply them to the
practices of advertising, broadcasting, journalism and public relations: copyrights and enforcement, trademark creation \& enforcement, defamation, privacy tords and defenses, fair trial and free press, contract creation and enforcement, agency principal relations
Explain and identify the regulations under the FTC, FCC and SEC that restrict the practices of advertising, broadcasting, journalism and public relations.
Identify conflicts between legal and ethical obligations in the practices of advertising, broadcasting, journalism, and public relations.
Explain and apply the rules for access to government meetings and records.
COM 462.
CentralNewsWatch
Management (3).
Administrative responsibilities
for the production of CentralNewsWatch and CNW social media. May be repeated up to 12 credits. Prerequisites: COM 310 and COM 442. Corequisite: COM 342.
Upon successful completion of this course, the student will be able to:
Identify story running order during a newscast as part of the role of news producer.
Create a newscast that
incorporate news values. Demonstrate concern for professional standards for each newscast.
Mentor and train incoming reporters.
COM 464. Nonfiction
Multimedia Storytelling (5).
Students in the digital journalism writing and reporting specialization will hone their multimedia storytelling skills by producing a multi-platform package using information gathered through the COM 466 Investigative Journalism course. Prerequisites: COM 226 and COM 303 and COM 308 and COM 321 and admission to the digital journalism major with
writing and reporting specialization. Co-requisites: COM 466 and COM 466LAB. Upon successful completion of this course, the student will be able to:
Compare the effectiveness of different storytelling
techniques that can be used to report newsworthy information depending on the characteristics of the sources providing that information. Choose the most appropriate storytelling technique, and the most suited media, to report the information gathered from different sources.
Manage rapport with human sources to gather audio and visual material necessary to tell a newsworthy story across media platforms.
Assemble in-depth story packages that include textual, audio, and visual content summarizing and illustrating effectively the information gathered from different documentary and human sources.
Demonstrate understanding of legal and ethical issues connected with the use of different media to report information.
Criticize in-depth multimedia news story packages.
COM 465. Communication and Organizational Leadership (4). This course builds on COM 365 and provides advanced study of communication within organizations and the role of communication in leadership. The course is designed for senior students who will apply previous course information to advanced projects and study. Prerequisites: COM 365 and admission to the communications major. Upon successful completion of this course, the student will be able to:
Analyze the differing
functional rules and
communication patterns by which leadership is conveyed in organizations.

Explain and describe typical communication problems and issues experienced by organizations.
Analyze the needed match between organizational culture and leadership styles.
Identify the importance of communication rituals in organizations. Analyze cultural variation among organizations.
COM 466. Investigative Reporting and Writing (3).
This class teaches the skills needed to conceive, report and write investigative stories based on documents, data and interviews to be published in newspapers, magazines and online publications. Course
will be offered every year (Spring). Prerequisites: COM 226 and COM 303 and COM 308 and COM 321 and admission to the communication department major status. Co-requisite: COM 466LAB.
Upon successful completion of this course, the student will be able to:
Identify subjects to investigate and create a comprehensive budget of story ideas and multimedia components to tackle the subject. Identify appropriate human sources and persuade them to talk on the record.
Utilize the federal Freedom of Information Act and state open records laws to obtain documents and data, both paper and electronic. Locate and download databases from the Internet Organize large amounts of material, including multimedia elements, and present it in a compelling way. Demonstrate understanding of the legal and ethical issues involved in investigative reporting.

## COM 468. Observer (1-3).

Reporting and writing, photo assignments and copy editing for the campus newspaper. May be repeated up to 12 credits.

Upon successful completion of this course, the student will be able to:
Research and generate story ideas and develop angles pertinent to an audience of CWU students, faculty and staff.
Demonstrate the ability to work in a deadline-driven environment.
Demonstrate the ability to write basic news and feature stories, including effective leads not grafts, basic story elements and basic story structures.
COM 469. Media and Cultural Studies (Put on reserve 9/16/16) (4). Detailed examination of the media from the perspectives and insights of critical theoretical approaches ranging from the Frankfurt School, to cultural studies, to postmodern theory. Emphasis on unlocking the domains of meaning, value, politics, and ideology in the development of entertainment and information technology industries. COM 469 and COM 569 are layered courses; students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)
Upon successful completion of this course, the student will be able to:
Relate the basic concepts and terms used in an analysis of media's impact on identity, race, gender, politics and culture.
Demonstrate knowledge of different theoretical perspectives on the role and power of media in society in influencing social values, political beliefs, identities and behaviors.
Demonstrate analytical skills necessary to critically analyze specific media "texts" and explore the meaning of the changes that occur when a particular narrative is examined from the context of different time periods. Relate concepts such as the dynamics of class, gender,
generation and race and their respective influences on both the production and reception of media.
COM 470. Public Relations
Strategies (4). Creation of a
public relations program for an organization, agency, or institution. Prerequisites: COM 370 and admission to either the communication studies, film, public relations, or journalism major.
Upon successful completion of this course, the student will be able to:
Plan a public relations campaign.
Report to your boss and/or client, to deliver effective formal campaign presentations. Operate and utilize a number of public relations research methods.
Build and organize a coherent discourse emphasizing the strengths and minimizing the weaknesses of the organization.
COM 471. Corporate Communication in Latin America (4). This course studies business communication in Latin America. It provides a Latin American perspective for business communication theories, strategies and practices. It also investigates the interaction of cultures from social, political, and legal viewpoints. Prerequisite: COM 370 and major status for public relations majors or instructor permission.
Upon successful completion of this course, the student will be able to:
Ability to understand and describe the structural parameters of the most important Latin American economies, understanding how they affect the business communication landscape, such as political structure, economic structure, mass media, infrastructure, legal structure and social structure. Ability to identify and explain cultural differences and how they affect the business
communication landscape in Latin America
Ability to understand and describe how public relations, and integrated communications take place in Latin American countries.
COM 472. Global Public
Relations (4). This course studies public relations from a global perspective. It provides an international point of view for public relations theories, strategies, and practices. It also compares cultures and investigates the interaction of cultures from a cultural, social, political, and legal perspective. Grade will either be S or U . Prerequisites: COM 370 and admission to either the communication studies, film, public relations, or journalism major.
Upon successful completion of this course, the student will be able to:
Reduce ethnocentric biases and foster an informed perspective on cross-cultural issues and relations
Demonstrate understanding of the cultural differences affecting the work of public relations practitioners when implementing international campaigns
Learn the methodology to hire a foreign firm and/or manage an international public relations campaign Learn how public relations are practiced in other countries as a way to better understand how the communication landscape works within a global economic context

## COM 473. Crisis

## Communication

Management (4). Crisis
communication management is concerned with all of an organization's stakeholders and the multifaceted way in which an organization communicates (customers, investors, employees, etc.). Prerequisites: admission to the
communication studies or public relations major, or instructor permission.

Upon successful completion of this course, the student will be able to:
Identify key functions of public relations departments within a corporation
Build a corporation's reputation and integrate it into the communication strategy for each of its stakeholders (consumers, employees, investors, etc.)
Recognize and utilize the assessment tools to evaluate a corporate reputation management plan. Evaluate cost-effective communication planning
COM 475. Public Relations
Management (4). Application of theory and concepts to managing public relations and advertising accounts.
Prerequisites: COM 470 and admission to public relations major, or instructor permission. Upon successful completion of this course, the student will be able to:
Identify PR and Advertising's diverse components, framework, and plan basics Understand PR and Advertising's concepts and recognize tools utilized in a variety of marketplace situations/scenarios Critically analyze case studies Apply knowledge of the public relations and advertising industries to current events and historical case studies and dissect the impact PR and Advertising has on the culture
COM 476. Corporate
Communications and
Investor Relations (4).
Professional financial communications course, focusing on SEC disclosure requirements and accurate/complete communicat ions with shareholders and investors. Intended to strengthen business-related verbal/writing/presentaton skills for careers in advertising, public relations, journalism, marketing/business administration. Prerequisites: COM 208 and COM 270.

Upon successful completion of this course, the student will be able to:
Demonstrate the ability to read and present income statements, balance sheets, cash-flow statements, understand SEC reporting regulations and related requirements, Sarbanes Oxley, GAAP and pro forma accounting, buy-side and sellside analysts, bulls-and-bears, longs-and-shorts, and market psychology.
Examine market ethics, including reconciling the seemingly contradictory requirements of fiduciary responsibility (e.g., doing well) for shareholders and corporate social responsibility (e.g., doing good) for employees, communities, the environment and the public as a whole. Summarize qualitative and quantitative worlds of investor relations including communicating with buy-and-sell-side analysts, hedge funds, institutions, retail investors, major exchanges, credit rating agencies and portfolio managers.
Prepare crisis communications plans to safeguard reputations and protect brand equity in a 24/7/365 social-media world. Appraise employee attraction and retention issues, including the use of Employee Stock Purchase Plans (ESPP) and stock options as incentives.
COM 478. Advanced
Newspaper Editing (3-6).
Administrative responsibilities for students serving as editors of the campus newspaper. Variable credit with a maximum of 6 credits. May be repeated for credit.
Prerequisites: COM 208, COM
347, and COM 468.
COM 481. Central
Communication Agency (2).
Managing real clients for the student-run, full-service public relations and advertising communication firm. May be repeated up to 6 credits. Prerequisite: COM 208 or by permission of instructor.

Upon successful completion of this course, the student will be able to:
Client/Agency Relationship: Students learn the role of the PR firm practitioner as well as $\mathrm{PR} /$ client relationship. The course will prepare students for real- work assignments through participation in a student- run communication agency. Daily work will bring opportunities involving client agency relationships.
Research and Methodology:
Students develop public relations approaches that address the following components: Research, Goals, Planning, Execution, Monitoring, and Evaluation. Strategic thinking: Students synthesize process and key relevant information to determine what is needed to position the client/organization/issue appropriately in its market/environment, especially with regard to
Planning Abilities, Implementation of campaign and evaluation of campaign: Students develop a comprehensive public relations plan that reflects the organization's needs including appropriate sequencing of plan elements. Develops, states and tests a public relations program's informational, motivational, and behavioral objectives using qualitative and quantitative methodologies.
COM 483. Advanced Central Communication Agency (3). Administrative responsibilities for teams within Central Communication Agency, the student-run, full-service public relations and advertising communication firm. May be repeated up to 9 credits. Prerequisite: COM 208 and COM 481 or by permission of instructor.
Upon successful completion of this course, the student will be able to:
Client/Agency Relationship: Students learn the role of the PR firm practitioner as well as

PR/client relationship. The course will prepare students for real- work assignments through participation in a student- run communication agency. Daily work will bring opportunities involving client agency relationships.
Learn Leadership within group dynamics: Lead students assigned to their account teams. On a weekly basis, they will become the liaison to the client, write weekly memos on their team's progress, and delegate necessary activities to their team to complete the goals set at the beginning of the quarter.
Learn the beginning process of Public relations planning through Research, Methodology and Strategic thinking.
Evaluation: Students have to determine if goals of the public relations program was met. Determines the extent the results or outcomes of public relations programs have been accomplished. Develops, states, and tests a public relations program's informational,
COM 485. Senior Seminar
(4). A research project leading to a thesis. Prerequisites: admittance to a communication major and COM 401.

## COM 486. Advanced

 Journalism Seminar (4). Issues and skills in specialized journalistic situations. Seminar topics will change from quarter to quarter. May be repeated for up to 8 credits under a different subtitle. Prerequisites:COM 308 and admission to either the communication studies, public relations, or journalism major.
Upon successful completion of this course, the student will be able to:
Relate the history of the variable topic subject matter as it relates to print, online, broadcast or photojournalism. Demonstrate understanding of journalistic ethics as it relates to the specific topic under study.

Develop a critical approach for examining the specific journalistic topic under study. Ability to demonstrate the creation of appropriate professional journalistic output consistent with the special topic under study
COM 487. Advanced Public
Relations Seminar (4).
Advanced public relations seminar topics will change from quarter to quarter. May be repeated for credit under a different title. Prerequisites: COM 470 and admission to either the communication studies, public relations, or journalism major.
Upon successful completion of this course, the student will be able to:
Introduce students to the specific field of study being introduced during the given quarter. As topics will vary each time the course is offered, these topics may include: Social Media, Crisis Communication, Event Planning, Political PR, Sports PR, Entertainment PR, etc. Provide an overview of the history, principles, practices and techniques of the specific field of communication Work closely with current industry leaders through interviews, volunteer opportunities within the field and study current trends as applied to public relations, communication, advertising or other areas within the Department of Communication.

## COM 489. Portfolio

Assessment (1). End-ofprogram assessment activities. Preparation, presentation, and evaluation of a professional portfolio of work produced during the major. Prerequisites: senior standing and admission to either the communication studies, public relations, or journalism major.
COM 490. Cooperative
Education (1-12). Individual contract arrangement involving student, faculty, and cooperating agency to gain
practical experience in communication. May be repeated for credit. Grade will either be S or U .
COM 491. Workshop (1-6).
May be repeated for credit.
COM 492. Communication
Practicum (2). Faculty supervised applied and/or service learning experience for students pursuing a major or minor in the communication department. May be repeated for up to 6 credits. Grade will either be S or U . Prerequisites students must be admitted to communication studies, public relations, film or journalism major or minor.
Upon successful completion of this course, the student will be able to:
Hone knowledge and skills set(s) developed in the major or minor and apply them to practical \&/or service learning project(s).
Demonstrate ability to work individually under deadline and as a member of a team toward a common goal, campaign or finished product. Ability to demonstrate the creation of appropriate professional project \&/or service learning output consistent with the specific learning agreement submitted by the student.
COM 496. Individual Study (1-6).
COM 497. Honors (1-12).
Prerequisite: admission to department honors program.
COM 498. Special Topics (16). May be repeated up to 12 credits.
COM 499. Seminar (1-5). COM 322LAB. Introduction to Studio Production Lab (1). Introduction to basic television studio production work-flow and production equipment certification. Four lab sessions held over two successive weekends. Course will be offered every year (Fall and Winter). Prerequisites: journalism or film major status or instructor permission.

Upon successful completion of this course, the student will be able to:
Describe how lighting, audio, and editing equipment are used safely.
Perform equipment functions of lighting, audio, and editing equipment in the studio.
Perform as a crew member in all other areas of studio production, including building sets, using grip equipment, creating graphics, and operating a teleprompter. COM 341LAB. Introduction to Field Production Lab (1). Introduction to cameras, lighting, audio and grip equipment used in field production, set etiquette and production work flow including post-production and exporting the finished product. One two-hour laboratory session weekly. Permission by instructor. Course will be offered every year (Fall and Spring). Prerequisite:
journalism or film major status or instructor permission.
Upon successful completion of this course, the student will be able to:
Design and present quality image composition and sound, using camera, lighting, and audio equipment effectively and safely.
Employ video editing software effectively from ingest of media through final project delivery.
Explain production crew roles and professional set etiquette.
COM 466LAB. Investigative
Reporting and Writing Lab
(2). A lab during which
students learn software
programs commonly used to analyze data in investigative reporting projects.
Prerequisites: COM 226 and
COM 308, or instructor permission.
Upon successful completion of this course, the student will be able to:
When given a complex database, students can draw accurate conclusions from the data using spreadsheet,
database and mapping
software.
CRBW 298. Special Topics
(1-6). May be repeated if
subject is different.
CRBW 299. Seminar (1-5).
May be repeated if subject is different.
CRBW 312. Brewing
Microbiology (4). An
introduction to the biology of
yeasts and other organisms important in the craft brewing industry. Includes the application of laboratory methods useful in brewing and quality control. Students must be 21 years of age or older. Formerly BIOL 312, students may not receive credit for both. Prerequisites: CHEM 101 or CHEM 111 or CHEM 181 and MATH 153 with a grade of C or higher and acceptance to the Certificate Program or Brewing Program. Upon successful completion of this course, the student will be able to:
Describe the major groups of spoilage organisms and their effects on finished beer. Demonstrate use a light microscope and appropriate staining techniques to visualize and identify microorganisms. Describe how yeast contribute to compositional features, biochemistry, flavors and aromas of beer
Demonstrate appropriate techniques for the isolation and laboratory culture of yeasts and spoilage organisms including all appropriate safety measures.
Use appropriate techniques to evaluate number and viability of yeasts during yeast production.
Experiment with factors that influence the growth, reproduction and metabolism of yeasts and spoilage organisms in beer production. Develop and interpret spider graphs for aroma and flavor descriptors.
Diagnose spoilage organisms that contribute to brewing faults.
CRBW 317. Principles and Biochemistry of Brewing (4).

An introduction to the principles of brewing and biochemistry of fermentation processes important in the craft brewing industry. Includes the application of laboratory methods useful in product evaluation and quality control. Students must be 21 years of age or older. Formerly BIOL 317 , students may not receive credit for both. Prerequisites: CHEM 101 or CHEM 111 or CHEM 181 and MATH 153 with a grade of C or higher and acceptance to the Certificate Program or Brewing Program. Upon successful completion of this course, the student will be able to:
Explain the compositional features and biochemistry of the four-essential brewing raw materials: malt, hops, water and yeast and how they transformed through the brewing process and contribute to beer styles. Describe the history of brewing and technological changes that have occurred in the transformation of the four basic ingredients.
Demonstrate techniques and use of equipment to analyze pH , specific gravity, and hop bitterness. Diagram the brewing and malting process and the use of equipment at each stage. Demonstrate brewing process, standard operating procedures and safe use of equipment.
CRBW 360. Brewing Process Technology (3). Study of brewing technology including equipment and processes from the brewhouse through packaging and distribution. Topics include factors that affect product quality. Formerly IET 360, students may not receive credit for both. Prerequisites: CHEM 101 and CHEM 111 or CHEM 181 and MATH 153 with a grade of C or higher. Student must also be admitted to the Craft Brewing Program.
Upon successful completion of this course, the student will be able to:

Calculate parameters for brewhouse processes
Analyze heating and cooling
loads of brewing processes Describe common cleaning and sanitation processes used in craft brewing systems Identify process control parameters in the brewing process that affect product consistency
Identify factors in the brewery and distribution channels that affect product quality
CRBW 396. Individual Study
(1-6). May be repeated if subject is different.
CRBW 397. Honors (1-12).
Prerequisite: admission to department honors program.
CRBW 398. Special Topics
(1-6). May be repeated if subject is different.
CRBW 399. Seminar (1-5).
May be repeated if subject is different.
CRBW 450. Sensory Analysis
for Brewing (5). Advanced
sensory analysis of beer styles
for quality control, recipe development, and identification of ingredients in the brewing process. Must be 21 years old. Prerequisite:
CRBW 317, acceptance to the Craft Brewing Program. Upon successful completion of this course, the student will be able to:
Evaluate the aromas and flavors of beers for style and quality control.
Diagnose beer faults with respect to brewing processes.
Evaluate historical production of classic beer styles based on ingredients and brewing practices.
Design a multiple facility quality control program for beer production using an appropriate experimental design.
Develop and interpret spider graphs for aroma and flavor descriptors.

## CRBW 470. Current Topics

in Brewing (1-6). An in-depth analysis of a specific topic within the field of brewing. Current literature and research will be reviewed, analyzed, and
discussed. May be repeated up to 12 credits. Prerequisites:
Acceptance to the Craft Brewing Program. Must be 21 years old.
Upon successful completion of this course, the student will be able to:
Synthesize current brewing and chemistry literature related to brewing and research. Evaluate and assess current methods and practices of a variety of contemporary brewing topics. Compare and contrast brewing and chemical processes related to the current topic (e.g. mashing, malting, hopping, packaging, costs, brewery design etc).
Calculate use and costs of ingredients, materials, and labor related to the current topic.
CRBW 490. Cooperative
Education (1-12). An
individualized contracted field experience in the brewing industry. A learning agreement is created to identify and plan the directed and supervised study. Must be 21 years old. May be repeated up to 18 credits. Prerequisite: CRBW 317, acceptance to the Craft Brewing Program.
CRBW 495. Brewing
Research Methods (5).
Conduct brewing research projects using pilot brewing equipment. May be repeated up to 15 credits. Prerequisites: CRBW 317. Acceptance to the Craft Brewing Program. Must be 21 years old.
Upon successful completion of this course, the student will be able to:
Propose a brewing research project and evaluate the results. Make calculations relevant for brewing and their research project.
Operate the pilot brewing equipment to perform their proposed brewing experiment. CRBW 496. Individual Study (1-6). May be repeated if subject is different.

CRBW 497. Honors (1-12).
Prerequisite: admission to department honors program.
CRBW 498. Special Topics
(1-6). May be repeated up to
12 credits. Prerequisite:
acceptance to the Craft
Brewing Program.
CRBW 499. Seminar (1-5).
May be repeated up to 12
credits. Prerequisite:
acceptance to the Craft
Brewing Program.
CS 101. Computer Basics (4).
Integrated, project-based course using student-produced working materials in the form of a mini thesis. Microsoft Office tools are learned in a web-based practical application environment. Basic Skills 6 Computer Fundamentals. Upon successful completion of this course, the student will be able to:
Computer Fundamentals
Use personal computers for basic office oriented applications.
Computer Applications
Create documents using a word processor.
Create spreadsheets using a spreadsheet application. Create a computer based presentation.
Computer Networking
Use the University Network for
file storage and use.
Internet Activity
Use the Internet for locating
specific sites and specific information.
Use the Internet for locating and obtaining information. Create web pages.
CS 102. Health and
Technology (4). Students will analyze the impact of health factors through construction of a personal health index calculator, create health analysis tools with instantaneous updating, and evaluate the pros and cons of technology in the health field. Upon successful completion of this course, the student will be able to:
Describe and interpret developments in health-related technology

Collect data and manage storage, retrieval, processing, and analysis, using professional communication standards and tools. Examine cost-benefit of working with this data. Assemble a unique personal health index calculator and use it to practice program and data manipulation.
Summarize mechanisms of online data storage and retrieval and evaluate security of health data online. Generate advantages and disadvantages of and report on the ethics of tracking health data. Support multiple viewpoints to develop empathy for others' experiences.
Record and analyze personal data through quantitative reasoning using tables, plots, and graphs, and review to define trends
Extrapolate data to create questions based on their specific results. Link data sources for rapid update of information.
Extract and analyze results from their personal information tracking database.
Create formulas that will provide answers about their nutritional status.
CS 105. The Logical Basis of
Computing (4). Students
develop mathematical and quantitative reasoning skills by learning the fundamentals of computer programming. Students gain an understanding of possible connections between technology and artistic expression. Basic Skills 5 - Reasoning. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Describe basic concepts of computer programming, including pseudocode, memory allocation, the three programming control constructs (i.e. sequential, decision, repetition), modular programming, file processing, and the use of arithmetic,
relational, and logical operators.
Decompose a complex problem into component parts (pseudocode).
Implement the three programming control constructs (i.e.sequential, selection and repetition) to solve problems. Modularize code by writing functions and procedures, and then signaling them to execute in a click event.
Retain a permanent record of data generated by a program by writing and reading files. Allocate computer memory to store and set the scope of constant and variable values of diverse data types, such as Integer, Double, Decimal, String and Boolean.
Implement parallel arrays without throwing an index out of range exception that stops program execution.
Implement Visual Basic arithmetic operators to correctly perform mathematical calculations.
Implement Visual Basic relational and logical operators to set up Boolean expressions to solve decision and repetition problems.
Identify and correct three types of programming errors: syntax, logic and runtime.
Add comments to adequately annotate programs Develop the graphical user interface to allow users to interact with the program. Synthesize concepts learned, and critically evaluate the digital world with which they are surrounded, by identifying a problem to solve and developing the solution. This is known as the final project.
CS 107. Make a Game with Computer Science (4). This course provides an overview of gaming within the field of computer science including social, cultural, ethical, legal, and economic issues. Software engineering principles will be introduced and applied to a game development. Course will be offered every year
(Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Describe how scientific, technological, and/or mathematical developments contribute to our lives and create value.
Recognize social, political, and ethical implications of scientific and/or mathematical discoveries and technological advancements.
Formulate questions that can be addressed through scientific, mathematical, or technological solutions.
Apply mathematical and quantitative reasoning to solve problems.
Apply software engineering principles to a game prototype development.
Develop a game prototype.

## CS 109. Quantitative

Reasoning Using Python (4).
Students explore quantitative and statistical processes by implementing the popular programming language Python. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Apply correct procedures from Python's data visualization libraries to present data in formats including, but not limited to, graphs, histograms, bar charts and tables. They will evaluate these mathematical forms to formulate meaningful conclusions.
Apply correct procedures from Python's data visualization and statistics libraries.
Evaluate the outcome of procedures from Python's statistics libraries.
Apply correct procedures from Python's libraries for data analysis and predictive modeling.
Analyze datasets using Python's statistics library and assess the validity of statistical hypotheses regarding these datasets.

Apply knowledge of Python's data types and mathematical operators by properly implementing mathematical calculations within a program and comprehending why they work.
CS 110. Programming
Fundamentals I (4).
Fundamental concepts of programming from an objectoriented perspective. Classes, objects and methods, algorithm development, problem-solving techniques, basic control structures, primitive types and arrays.
Upon successful completion of this course, the student will be able to:
Analyze the behavior of simple programs involving
fundamental programming constructs
Write programs that use each of the following fundamental programming constructs: basic computation, simple $1 / 0$, standard conditional and iterative structures Write programs in the objectoriented paradigm using objects, primitive data, classes, and method definitions.
CS 111. Programming
Fundamentals II (4).
Continuation of object-oriented programming concepts introduced in CS 110. Inheritance, exceptions, graphical user interfaces, recursion, and data structures. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 110 and one of MATH 153 or MATH 154 or MATH 172 or MATH 173. Upon successful completion of this course, the student will be able to:
Write programs that use arrays of primitive data and objects Write programs in the objectoriented paradigm using inheritance, encapsulation, and polymorphism.
Write event-driven programs with graphical user interfaces Write programs that read and save information to external files.

CS 112. Foundations of Computer Science (4).
Overview of the computer science profession including basic computer organization, algorithm development and analysis, computer data representation, computer applications, and social issues. Upon successful completion of this course, the student will be able to:
General Overview of computer science and the specialty fields within the discipline.
Recognize the various specialty fields within computer science as a profession and their application.
Algorithm foundation of Computer Science
Develop algorithms for different kinds of problems. Analyze algorithms within limited contexts.
Basic Machine Organization
Describe the basic machine organization for von Neumann class computers.
Define the role and function of the various components of computers.
Show how machine languages
provide the directions for computer operations for computers of this class. Programming languages for computers
Describe the development of programming languages from machine language through high-level languages. Identify the programming paradigms of imperative programming, functional programming, logic programming, object-oriented programming.
Recognize the purpose, function, and differences of language assemblers, compilers, and translators.
Data representation and numbers stem used in computers
Convert numbers between bases including base 2 (binary), base 10 decimal), and base 16 (hexadecimals). Perform arithmetic operations in the binary and hexadecimal.

Identify other forms of computer data representation including characters and floating-point numbers. Describe computer applications as they apply to fields within the profession.
Describe database, networking, and artificial intelligence as computer applications. Introduction to social and ethical issues of computer science.
Identify social and ethical issues related to computer science.
Discuss current social and ethical issues of computer science.
CS 250. Web Development Technologies I (4).
Techniques for web software development including
XHTML, style sheets, scripting
languages, web databases,
PHP, and ethical issues.
Prerequisite: CS 110.
Upon successful completion of this course, the student will be able to:
Describe and use client-side
technologies of the World
Wide Web: XHTML, CSS, and JavaScript
Create and maintain a dynamic web site
Design and create web applications that dynamically access a database.
Articulate ethical positions on contemporary issues related to the web
Deliver oral presentations on
website design and implementation
CS 290. Cooperative
Education (1-5). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
CS 298. Special Topics (1-6).
CS 299. Seminar (1-5). May be repeated if subject is different.

CS 301. Data Structures (4).
Introduction to data structures, simple list processing, basic searching and sorting techniques, stacks, queues, and trees. Prerequisites: CS 111 and MATH 154.
Upon successful completion of this course, the student will be able to:
List the fundamental data structures
Write programs involving data structures in Visual C++
Write programs involving data
structures with the C++
Standard Template Library
Describe and apply the data
structures
String
Vector
List
Stack
Queue
Deque
Set
Tree
Describe how fundamental
data structures are
implemented
Decide and explain the choice
of a data structure for an application
CS 302. Advanced Data
Structures and File
Processing (4). Sequential, random access and indexed file organizations; B-trees; external searching and sorting; I/O buffering. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisites: Grades of C or
higher in General Education
Academic Writing I and II and
MATH 172, B- or higher in CS
110, CS 111 and CS 301.
Upon successful completion of this course, the student will be able to:
List the advanced data
structures
Design advanced data structures
Write programs involving
advanced data structures in
Visual C++
Describe and apply the
advanced data structures
Binary Tree
Binary SearchTree

ADT Table
Hash Table
AVL Tree
Red-black Tree
2-3 Tree, 2-3-4 Tree,B-tree
B-plus Tree
File Structures
Graph
Describe how advanced data
structures are implemented
Decide and explain the choice
of an advanced data structure
for an application
Describe and apply internal and external sorting algorithms Describe and apply internal and external searching algorithms and methods.
CS 311. Computer Architecture I (4).
Introduction to computer architecture, data representations, assembly language, addressing techniques. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisite: CS 111.
Upon successful completion of this course, the student will be able to:
Create and modify programs of significant size using Assembly language. Create software programs using commonly accepted practices for writing software, such as, proper documentation, testing, and code writing. Modify software written by other programmers. Compare and contrast Assembly language with other programming languages.

## CS 312. Computer

Architecture II (4).
Introduction to the structure of computers. Digital circuits, central processing units, memory, input/output processing, parallel architectures. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 301 and CS 311.

Upon successful completion of this course, the student will be able to:

List the historical developments of computers from analog to digital signals, description of a simple computer organization, electronic representation of bits and description of voltage levels and pulse time. Apply representations and calculations in Boolean algebra.
Describe and apply the elements used in combinational circuits, encoders and decoders, multiplexors and demultiplexors, ROM, shifters and adders, registers and ALU. CS 325. Technical Writing in Computer Science (3). Writing and editing technical material in computer science. Course will be offered every year (Fall, Winter, Spring). Prequisites: ENG 101 and ENG 102 with a grade of C or higher and CS 110 and CS 111 and CS 301 with a grade of Bor higher.
Upon successful completion of this course, the student will be able to:
Be able to write a concise, objective and accurate summary of an article directed toward a general audience on a computer science topic and a concise summary of a math or computer science article that includes a discussion of mathematical concepts. This is an extended paraphrase that does not use any quoted material or near quotes. Topics might relate to controlling round-off error, creating strong passwords, and user interface design among other topics. Demonstrating knowledge of how to correct passive voice and wordiness by restructuring the sentence syntax, using strong verbs, and reducing use of prepositions.
Demonstrate knowledge of how to edit and track changes in a word-processing software and using standard proofreader's marks. Language related outcomes: Correctly use American English punctuation, especially commas (for introductory
clauses and non-essential clauses), colons, semi-colons, and italics. Be able to show differences between US and UK punctuation rules. Demonstrate familiarity with commonly confused words in English and be able to select the correct spelling given a sentence in a test situation. Math and Computer Science related outcomes: Demonstrate ability to create a drop-down list using parallelism. Demonstrate ability to correct standard errors in table and graph constructions following Zobel's guidelines, paying attention to scaling, notes, and avoiding redundancies. Diagram a written procedure with a flowchart using ISO symbols. Be able to format a mathematical displayed equation. Show yes-no decision points in a computer problem and at least one loop. Locate a job announcement or an internship opening in the computer science industry and apply to it.
Demonstrate knowledge of US copyright and trademark law by explaining the concepts of fair use, permission, and public domain.
Stylistic outcomes: Ability to identify the differences between MLA, APA, and IEEE documentation styles. Review an article that has been submitted to an ACM journal. Ability to produce relevant bibliography using library databases
Write a literature survey
Produce a Power Point
presentation and demonstrate efficient oral presentation techniques.

## CS 351. Web Development

Technologies II (4). Serverside technologies for web software development including programming languages, database access, ecommerce, testing, and ethical issues related to the web.
Course will not have an established scheduling pattern. Prerequisite: CS 111.

Upon successful completion of this course, the student will be able to:
Describe and use client-side technologies of the World Wide Web, namely XHTML, CSS, and JavaScript. Describe and use dynamic web site technologies such as JavaScript and PHP
Design and create web
applications using SQL and PHP.
Articulate ethical positions on contemporary issues related to the web
Deliver oral presentations on website design and implementation
CS 352. Web Development
Technologies III (4).
Advanced technologies for web software development, including XML and its related technologies: DTD, XML
Schema, XSL, and XSLT, and other emerging technologies. Prerequisite: CS 351.
Upon successful completion of this course, the student will be able to:
Explain the purpose of XML and why it goes beyond the capabilities of HTML
Design, code, and use XML in developing Web applications. Validate XML documents using a Document Type Description (DTD) and XML Schemas
Use Cascading Style Sheets
(CSS) to format and display an XML document
Transform XML documents
using XSL Transformation (XSLT)
Explain the purpose of XPath, XPointer, and Xlink and other emerging XML technologies Research, write and present on an XML child language in use CS 361. Principles of Language Design I (4). Topics
will include evolution of programming languages, syntax and semantics, bindings, scoping, data types, assignment, control, and subprograms. Course will be offered every year (Fall).
Prerequisite: CS 302 and
admission to computer science major.
Upon successful completion of this course, the student will be able to:
Survey the wide variety of programming languages. Differentiate between compilation and interpretation. Explore elements of formal languages.
Explain the construction of lexical scanners and parsers.
List the phases of compilation Distinguish the semantics of control structures. Describe the major issues regarding storage at runtime. Differentiate between static and dynamic scopes.
List properties of type systems.
Apply principles of expression evaluation.
CS 362. Principles of Language Design II (4).
Topics will include abstract data types, parallel processing, object-oriented programming, exception handling functional programming, and logic programming. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 361 and MATH 260 with a grade of C or higher and admission to CS Major.
Upon successful completion of this course, the student will be able to:
Describe and analyze aircraft turbine engine design and construction.
Describe and analyze turbine engine theory of operation.
Describe and analyze turbine engine lubrication and cooling Describe and analyze aircraft propellers and governors. Describe and analyze common turbine electrical systems. Describe and analyze aircraft hydraulic and pneumatic systems.
Describe and analyze aircraft
fuel systems.
Describe and analyze aircraft flight control systems.
Describe and analyze aircraft instrumentation.

Describe and analyze advanced avionics and autopilot systems.
CS 367. Advanced Visual Basic Programming (4).
Visual Basic programming and applications. Topics will include advanced data structures, error trapping and debugging, advanced VB and Active $X$ controls, macros and databases. Not intended for CS majors. Prerequisites: CS 105 and CS 110.
Upon successful completion of this course, the student will be able to:
Explain the importance of bullet-proofing programs List and explain three different types of errors - run-time, syntax and logic
Use built-in error trapping and explain the types of errors it catches
Explain the disadvantages of GOTO statements
Use the standard debugging techniques - data dump and hand-execution
Use the integrated VB
debugger
CS 370. Introduction to the UNIX Operating System (4). The fundamental requirements, features and functions of the UNIX operating system. A UNIX-compatible OS will be used as a working model. Installation, configuration, setup, shell operations, and program development with the UNIX operating system. Course will not have an established scheduling pattern. Prerequisites: CS 301 and CS 311.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge in different Unix/Linux like operating systems.
Perform different operating system specific programming tasks involving $\mathrm{C} / \mathrm{C}++$ programming language. Convert different algorithms into shell scripts using OS specific tools. Set-up from scratch an operating system.

Identify scenarios where one tool or another relevant tool should be considered to solve specific problems.
Manage an operating system from administration point of view.
CS 380. Introduction to Software Engineering (4). An introduction to the principles and practices of software engineering, including objectoriented analysis and design, design patterns, and testing. Course will be offered every year (Spring). Prerequisite: CS 302 and admission to computer science major.
Upon successful completion of this course, the student will be able to:
List and explain good design in terms of Java patterns.
Assess and evaluate large project resources.
Formulate principles of customer interaction. Describe the use of testing and version control tools. Organize and schedule team member meetings.
Prepare presentations on the progress of project.
Practice human skills to
resolve conflicts.
CS 392. Lab Experience in Teaching Computer Science (1). Supervised experience in developing procedures and techniques in teaching computer science. Grade will either be $S$ or $U$.
CS 396. Individual Study (16). May be repeated if subject is different.
CS 397. Honors (1-12).
Prerequisite: admission to department honors program.
CS 398. Special Topics (1-6).
May be repeated if subject is different.
CS 399. Seminar (1-5). May be repeated if subject is different.
CS 420. Database
Management Systems (4).
Logical aspects of database processing; concepts of organizing data into integrated databases; hierarchical, network, and relational approaches. Course will be
offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 302, a grade of C or higher in MATH 330, and admission to computer science major.
Upon successful completion of this course, the student will be able to:
Identify different types of DB organization
Describe a relational database.
Recognize an
Entity/Relationship model
Analyze and state problems in terms of relational algebra.
Demonstrate through design
the principles of relation
description via functional dependencies.
Identify good design of a relational database. Utilize Sequential Query Language (SQL).
CS 427. Algorithm Analysis
(4). Topics will include basic algorithmic analysis, algorithmic strategies, fundamental computing algorithms, basic computability, the complexity classes P and NP, and advanced algorithmic analysis. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 302 and a grade of C or higher in MATH 330 , and admission to computer science major.
Upon successful completion of this course, the student will be able to:
Define basic categories of algorithmic analysis and algorithmic strategies Formulate and apply fundamental computing algorithms to solve specific tasks
Formulate Mathematical analysis of recursive algorithms, heterogeneous recurrences and the Master Theorem
Formulate and apply Bruteforce, Exhaustive search, Depth-First and Breadth-First Search and Decrease-andconquer algorithms

Formulate and apply the complexity classes P and NP to specific tasks
Formulate and apply advanced algorithmic analysis.
CS 428. Introduction to Graph Algorithms (4). This course gives a wide introduction to the field of graph algorithms. Students will learn how to recognize and analyze algorithmic graph problems, as well as how to develop practical approaches for solving them. Course will not have an established scheduling pattern (Spring).
Prerequisite: CS 302 and MATH 330.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of algorithmic ideas and principles discussed in class. Distinguish between different types of graph problems and choose algorithms which solve them.
Analyze an optimization problem, transform it into a graph problem, and implement a program solving it.
Propose an algorithmic approach to solve the graph problem of term project.
Justify chosen algorithms, data
structures, and other design decisions in submitted implementation.
CS 430. Introduction to
Computer Security (4).
Introduction to the principles
of computer security.
Discussion of threats, intrusion,
trust, protection, access
control, and cryptography and implementation of security, confidentiality, and integrity
policies. Department
reactivated winter 2016.
Prerequisite: CS 312.
Upon successful completion of this course, the student will be able to:
Differentiate the basic components of computer security
Classify, compare, and contrast different computer security threats.

Implement and experiment with cryptographic encodingdecoding methods. Analyze encryption security policies and propose software development practices to avoid possible weaknesses. Implement and experiment with anti-malware techniques Describe the concept of social engineering as it relates to internet computer security and evaluate its effectiveness.
Analyze anti-malware security policies and propose software development practices to avoid possible intrusion attacks.
CS 440. Computer Graphics
(4). Graphic I/O devices, twodimensional and threedimensional display techniques, display processors, clipping and windowing, hidden line removal, data structures for graphics. Prerequisites: CS 302 and CS 361 and MATH 265 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
List the historical developments of computer graphics.
List and apply the elementary drawing of figures.
Describe and apply the elements of analytic geometry Describe and apply matrix representations of transformations Explain and apply display segmentation processes. Describe and apply the elements of 30 graphics.
CS 441. Computer Graphics II (Put on reserve 9/16/17)
(4). Advanced graphics in 3-D with vector tools. Topics include: transformations, affine transformations, changing coordinate system, drawing scenes, modeling shapes, solid modeling, and smooth objects. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Prerequisite: CS 440.
Upon successful completion of this course, the student will be able to:
Properly use vector tools in graphical systems.

Discuss the concept of object transformation.
Describe and apply 3-D affine transformations in computer graphics.
Describe and apply techniques necessary to change the coordinate system in computer graphics.
Ability to build graphical systems that draw user and application required shapes. Ability to draw 3-D scenes with Open GL tools. Describe methods for decomposing affine transformations into basic geometric operations. Describe and apply the elements used in defining operations
Solid modeling with polygonal meshes,
Polyedra and Nonsolid objects, and smooth objects. Ability to build graphical systems using Open GL.
CS 442. Computer Vision (Put on reserve 9/16/15.) (4). Computer vision includes image acquisition, preprocessing, segmentation (thresholding, edge- and region-based segmentation), shape representation, object recognition, motion analysis, object tracking, and 3-D scene reconstruction. Put on reserve $9 / 16 / 15$. Will go inactive 8/24/18. Prerequisite: CS 302. Upon successful completion of this course, the student will be able to:
Explain the image formation process.
Demonstrate various segmentation approaches, and ha able to detail their characteristics, differences, strengths, and weaknesses. Describe and apply object recognition based on contourand region-based shape representations. Explain differential motion analysis methods. Describe and apply the differences in object tracking methods.
CS 445. Data and Information Visualization
(4). Data visualization includes
the visualization pipeline, basic and advanced visual data representations, fundamental and advanced visualization algorithms, visualization on the web, applications and software tools. CS 445 and CS 545 are layered courses; students may not receive credit for both. Prerequisite: CS 302. Upon successful completion of this course, the student will be able to:
Construct visualization
pipelines for specific
visualization tasks.
Apply visual data
representations.
Create effective operational models for knowledge of fundamental visualization algorithms.
Quantify visualization
frameworks for web
visualization applications.
CS 446. User Interface
Design and Development (4).
The relationship of user interface design to humancomputer interaction. Types of user interfaces, methods of evaluation, user-centered design and task analysis, programming tools and environments, and hardware devices. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: CS111 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Recognize basic principles of User Interface Design Apply user interface design and usability. Construct a basic web site using HTML and CSS. Construct a basic web site using JavaScript and JQuery. Develop a front end including: design, paper and computer prototype, implementation and Usability testing. Present the group project
CS 450. Computer Network and Data Communications
(4). Device protocols; network configurations; encryption; data compression and security; satellite networks. Course will
not have an established scheduling pattern Prerequisites: CS 301 and CS 311.

Upon successful completion of this course, the student will be able to:
Identify and explain the basic concepts of communication among computers.
Identify and explain the fundamentals of computer networks, primary LAN architectures, network topologies, and the difference between local and wide area networks
Describe the purpose of communication and network standards and identify the primary standards bodies for networking.
Describe the nature and functionality of protocol layering in networking. Create a descriptive list of the concept and purpose of protocols for communication, the principle protocols used in LAN, and the principle protocols used in Wide Area
Networks and the Internet
Recognize the purpose and basic operation of Network Operating Systems.
Describe the messaging mechanisms of networks.
CS 455. Artificial Intelligence
(4). Introduction to the principles of artificial intelligence. Pattern matching, knowledge representation, natural language processing, expert systems. Prerequisites: CS 302, CS 325, CS 362 and MATH 330.
Upon successful completion of this course, the student will be able to:
List the historical
developments of artificial intelligence
Describe and apply the elements of production and matching
productions system
methodology
pattern matching
mathematical formula
manipulation
the notion of unification

Describe and apply the elements used in knowledge representation
productions rules
concept hierarchies
inheritance
propositional and predicate
logic
frames of context
semantic networks
constraints
relational databases
Describe and apply the
elements used in searching
elementary search techniques
heuristic search techniques
planning
two-person, zero-sum games
Describe and apply the
elements used in probabilistic
reasoning
probability
probabilistic inference
networks
updating inference networks
the Dempster-Shafer calculus
Describe and apply the
elements used in learning
classification rules
general rules from fixed
examples
self-directed conceptualization
systems
Describe and apply the
elements used in natural
language understanding
syntax
semantics and representation computing interpretations
dialog management
Describe and apply the
elements used in expert systems
integration of Al techniques tools

## hardware

CS 456. Data Mining (4).
Introducing concepts, models, algorithms, and tools for solving data mining tasks; decision trees, time series, Bayesian methods, k-nearest neighbors, and relational databases. CS 456 and CS 556 are layered courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 302 and CS 361 and MATH 260.

Upon successful completion of this course, the student will be able to:
Characterize specific data mining tasks, introducing concepts, models, algorithms, and tools for solving data mining tasks; decision trees, time series, Bayesian methods, k-means, k-nearest neighbors, and relational databases--from
"decision trees".
Use machine learning
algorithms to solve data
clustering and classification problems.
Identify the important of data mining in financial applications.
CS 457. Computational Intelligence and Machine
Learning (4). Introducing intelligent systems: artificial neural networks, deep learning, evolutionary computation, fuzzy systems, swarm intelligence, and hybridizations of the above techniques. We will look at these techniques from a machine learning perspective. CS 457 and CS 557 are layered courses; students may not receive credit for both. Course will not have an established scheduling pattern (Winter). Prerequisites: CS 302 and MATH 330.
Upon successful completion of this course, the student will be able to:
Compare the development and history of computational and artificial intelligence as compared to the Turing Machine and conventional computing.
Describe the basic concepts of artificial neural networks: learning, classification, pattern recognition, memory, logical operations.
Build neural classifiers and pattern recognition models. Describe the use of feedback in neural networks for optimization.
Describe associative memories and, their use in clustering, classification and visualization of very large data sets. Define genetic algorithms and their use in optimization.

Discuss the basic features of swarm intelligence and ant colony optimization. Compare fuzzy logic to binary logic and analyze the use of fuzzy rules for expert systems and the architecture of fuzzy neural systems.
Describe radial function neural networks.
Analyze the computational
power of neural networks and determine the limits of neural computing.

## CS 460. Software

Engineering for Mobile
Devices (4). Development of stand-alone applications (apps) intended to be downloaded onto and run on mobile devices. Android and iOS is taught. Topics include XML, data and control flow diagrams, IDEs, layout design, etc. Prerequisite: CS 301.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of MVC design pattern
Demonstrate knowledge of and proficiency with XML in use in a large-scale development team
Demonstrate use of Objective-
C and Java in writing stand-
alone applications for deployment onto mobile devices
Design, create, and interpret control-flow (CFD) and dataflow diagrams (DFD) Students will apply effective User Interface (UI) design principles to design a userfriendly, easy-to-use Graphical User Interface (GUI) for their three custom mobile applications. Students will employ formal integration and unit testing principles to evaluate efficiency and accuracy of back-end code and its ability to meet a mobile app's functional and non- functional requirements
CS 470. Operating Systems
(4). Topics will include principles of operating systems, concurrency, scheduling and dispatch,
memory management, processes and threads, device management, security and protection, and file systems. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 302 and CS 312 and CS 325 and CS 361 and admission to computer science major. Upon successful completion of this course, the student will be able to:
Manipulate an operating system functions with particularities considered for Linux and Windows. Integrate concepts such as process management, how processes are created, synchronized, canceled, deadlocks, etc. Integrate concepts such as main/virtual memory management, how memory is allocated, how memory is shared, and how this integrates in the OS paradigm. Design and develop multithreaded solutions to solve problems in multiprocessor architectures and be able to justify the parallel programming in the critical section paradigm. Assess, test and compare different CPU scheduling mechanisms and recognize and distinguish advantages and disadvantages of these strategies in the OS paradigm Integrate data storage concepts.

## CS 471. Optimization (4).

Unimodal and Multimodal problems; combinatorial optimization problems; deterministic algorithms; Hill climbing algorithm; Tabu Search Algorithm; Evolutionary algorithms; Particle swarm optimization; Differential evolution; Single and Mutli-objective optimization. Prerequistes: CS 302 and CS 325 and MATH 330.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of different problem domains.

Differentiate different optimization algorithm classification, in terms of deterministic and stochastic algorithms.
Formulate deterministic algorithms using given set of rules on a specified problem domain.
Formulate stochastic algorithms based on population topology.
Assess the performance characteristics of different algorithms through benchmark tests.
Evaluate the suitability of different optimization algorithms in given scenarios.
CS 473. Parallel Computing
(4). Major parallel
architectures and languages.
Parallel programming methodologies and applications. CS 473 and CS 573 are layered courses; students may not receive credit for both. Prerequisite: CS 361. Upon successful completion of this course, the student will be able to:
Design algorithms that execute efficiently on parallel computers.
Demonstrate the usage of distributed programs.
Demonstrate the usage of multi-core programs. Identify computational science solutions for problems in a parallel/distributed environment.

## CS 475. Programming for

 Distributed Environments(4). An introduction to technologies used for creating applications that run in a distributed computing environment, such as across local/wide area networks (LAN/WAN) and the internet. Prerequisite: CS 302. Upon successful completion of this course, the student will be able to:
Identify the significant architectural styles of distributed computing. Identify the different communication methods used by distributed applications

Identify the issues specific to creating a distributed application, such as synchronization, fault tolerance, naming, and consistency.
Identify the paradigms used for creating distributed applications.
CS 476. Social Informatics for Computer Science (4).
This course provides a survey of the critical issues related to computer and/or information systems design, development, implementation, use and management. It focuses on the critical analysis of social, cultural, philosophical, ethical, legal, public policy, and economic issues relating to computer and information systems and how these interactions shape workplace decisions and use of those systems. Prerequisite: CS 301. Upon successful completion of this course, the student will be able to:
Define key terms from the discipline of social informatics Discuss critical social informatics theories Apply social informatics theory to solve problems. Distinguish social informatics theory from other theoretical frameworks associated with lCTs.
Design a plan that facilitates the successful implementation of an ICT in a specific setting. Justify a plan that facilitates the successful implementation of an ICT in a specific setting. CS 480. Advanced Software Engineering (4). Advanced principles and practices of software engineering, including project management, requirements gathering and specification, design, coding, testing, maintenance and documentation. Students work in teams to develop a large software project. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisites: CS 325 and CS 380 and admission to computer science major.

Upon successful completion of this course, the student will be able to:
Acquire and integrate concepts such as software project management necessary to build a professional software project using a computer.
Study the software product lifecycle: problem definition, the client, the requirements, requirements specification, design, prototype, testing, and deployment.
Learn how to prepare a software requirements specification document based on discussions with a real client.
Learn how to prepare a software documentation. Use and further develop their technical writing skills to prepare all these documents. Learn to work in teams (agenda, meeting, focus, timing, minutes, etc.) and how to prepare a presentation for the client with a possible solution for a given problem.

## CS 481. Software

Engineering Project (4).
Continuation of coding, testing, and implementation phases of project begun in CS 480. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: CS 325 and CS 480 and admission to computer science major. Upon successful completion of this course, the student will be able to:
Implement and use the knowledge acquired in CS 480 (team, deadlines, meetings, working in teams, meeting with clients, etc.) for real-life problems assigned by the CS department.
Select the adequate technologies, solutions (platform, technologies, operating systems, etc.) to provide a viable solution to the client.
Write and develop a project progress report based on the current project status.

Write and develop a final project report based on the assigned project.
Show and demonstrate live their software product. Learn how to asses and evaluate themselves and their peers by writing a short evaluation report.

## CS 489. Senior Colloquium

(1). Introduction to research in computer science through investigation of ethical and historical topics in the field. End-of-major assessment activities. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisites: CS 325 and admission to the computer science major.
Upon successful completion of this course, the student will be able to:
List "Computer Ethics Institute" IT professional ethics.
Explain "Software Engineering Code of Ethics" Name and explain similarities in business and IT professional ethics.
Analyze significant and current topics in Computer Science. Prepare a written report of a significant ethical or historical topic.

## CS 490. Cooperative

Education (1-12). An individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
CS 491. Workshop (1-6).
CS 492. Laboratory
Experience in Teaching
Computer Science (1-2).
Supervised progressive experience in developing procedures and techniques in teaching computer science. May be repeated up to 15 credits. Grade will either be S or U.

CS 493. Practicum (1-5).
Supervised progressive experience in management, operation, programming, or systems work in one of the university's computing centers. May be repeated for credit. CS 495. Directed Research (1-6). By permission. May be repeated up to 12 credits. Upon successful completion of this course, the student will be able to:
Demonstrate critical thinking skills.
Demonstrate an ability to communicate ideas and results effectively.
Demonstrate an ability to learn new material independently from a variety of sources.
CS 496. Individual Study (16).

CS 497. Honors (1-12).
Prerequisite: admission to department honors program.
CS 498. Special Topics (1-6).
CS 499. Seminar (1-5).
CTE 292. Work-site
Learning Practicum (1-12).
One university credit is awarded for every 40 hours of work experience. Practicum may be paid or unpaid. Prerequisite: Successful acceptance into a CTE worksite learning program. Upon successful completion of this course, the student will be able to:
Demonstrate a positive attitude toward work
Demonstrate job growth/skill improvement
Demonstrate the ability to successfully relate to others in the workplace
Demonstrate dependability
Demonstrates a commitment to high quality work
CTE 298. Special Topics (1-
6). May be repeated if subject is different.
CTE 299. Seminar (1-5). May
be repeated if subject is
different.
CTE 310. Introduction to
Career and Technical
Education (3). An entry-level
course that introduces students
to career and technical
education careers, the
assessment process, and requirements for program completion.
CTE 396. Individual Study
(1-6). May be repeated if subject is different.
CTE 397. Honors (1-12).
Prerequisite: admission to department honors program.
CTE 398. Special Topics (1-
6). May be repeated if subject is different.
CTE 399. Seminar (1-5). May
be repeated if subject is different.
CTE 410. Career and Technical Education School to Work Programs (4). Workbased learning, student leadership, advisory committees, program promotion, and professional responsibilities in career and technical education. Prerequisite: full admission to the Teacher Preparation Program.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to apply the guidelines and legal requirements surrounding work-based learning. Demonstrate the ability to apply the guidelines and legal requirements surrounding worksite learning.
Define and describe CTE standards for Washington state.
Define and describe CTE certification requirements.
CTE 422. Impact of
Education Reform on Career and Technical Education (2).
Student will use program of study content knowledge to improve a community situation. Formerly FCSE 422, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify the impact of current education reform issues. Identify community needs related to education. Identify, integrate and apply specific skills, knowledge, and technologies in the classroom.

Demonstrate their ability to analyze their progress in implementing an education reform project.
CTE 432. Occupational
Analysis (3). Analysis of jobs and trades to determine related technical information, skills, and advisory sources necessary to develop content materials for a course of study. Formerly OCED 432, students may not receive credit for both.
CTE 440. Total Quality
Learning in Career and Technical Education (3). Concepts of continuous improvement in teaching career and technical education.
CTE 460. Business and Marketing Education Exit Assessment (4). During the last quarter of their program, students are assessed on writing skills, speaking skills, visual/graphic skills, and knowledge of theory and research. Prerequisites: CTE 310, BME 450, BME 451 and BME 452, and full admission to the major and the Teacher Certification Program. CTE 496. Individual Study (1-6). May be repeated if subject is different.
CTE 497. Honors (1-12). Prerequisite: admission to department honors program.
CTE 498. Special Topics (16). May be repeated if subject is different.
CTE 499. Seminar (1-5). May
be repeated if subject is different.
CTE 310A. Career and Technical Education Teaching Methods (3-5). An introduction to teaching pedagogy and application of occupational skills, knowledge, and practice to a career and technical education classroom setting. Formerly OCED 310A, students may not receive credit for both. May be repeated up to 5 credits.
CTE 310B. Career and
Technical Education
Occupational Analysis (3-5).
An introduction to teaching pedagogy and application of occupational skills, knowledge
,and practice to a career and technical education classroom setting. Formerly OCED 310B, students may not receive credit for both. May be repeated up to 5 credits.
CTE 310C. Career and Technical Education Course Organization and Curriculum Design (3-5). An introduction to teaching pedagogy and application of occupational skills, knowledge, and practice to a career and technical education classroom setting. Formerly OCED 310A, students may not receive credit for both. May be repeated up to 5 credits.
CTE 311A. Career and
Technical Education Coordination Techniques of Cooperative Education (3-5). Advanced teaching pedagogy, history, and philosophy of career and technical education, school law and issues related to abuse, leadership, and workbased learning. Formerly OCED 311A, students may not receive credit for both. May be repeated up to 5 credits.
CTE 311B. History and Philosophy of Career and Technical Education (3-5).
Advanced teaching pedagogy, history, and philosophy of career and technical education, school law, and issues related to abuse, leadership, and workbased learning. Formerly OCED 311B, students may not receive credit for both. May be repeated up to 5 credits.

## CTE 311C. Career and

Technical Education Student and Professional Leadership Development (3-5). Career and technical education student leadership curricular requirements and professional leadership development. Formerly OCED 311C, students may not receive credit for both. May be repeated up to 5 credits.
CTE 311D. Career and Technical Education School Law and Issues Related to
Abuse (2-5). Advanced teaching pedagogy, history, and philosophy of career and
technical education, school law and issues related to abuse, leadership, and work-based learning. May be repeated up to 5 credits. Formerly OCED 311D, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the certified teacher responsibilities under each section of WAC 180-44. Apply knowledge to individual practices.
Understand the Code of
Conduct for teachers in Washington State and analyze and evaluate the impact on teacher behavior and performance.
Become familiar with and apply the standards and criteria for obtaining a professional teaching certificate and a CTE certificate through the College University route or through the Business Industry route. Analyze and evaluate the minimum criteria for the evaluation of a certificated employee.
Analyze and evaluate the 1st, 4th , 5th and 10th Amendments to the US Constitution and how they relate to public education and to student, parent and teacher rights and responsibilities.
Evaluate landmark cases that have impacted schools. Interpret the rights of teachers and cite court cases. Analyze and become familiar with the Landmark cases referring to education, teachers, schools, parents and students.
Become familiar with common legal terms that apply to public education.
Become familiar with the
Federal and State Court System.
Analyze the differences between criminal and civil law. Analyze the rules and regulations for students in

Special Education or who have Section 504 plans.
Become familiar with and be able to identify abuse and neglect.
Evaluate the teachers legal responsibilities under RCW 26-44.
Learn how and when to report abuse and neglect.
Distinguish what is considered Harassment and Bullying. Analyze the impact of abuse on the behavior and learning of students.
DHC 140. Humanistic Understanding I (5). Variable topic. Courses in the humanities focuses on the analysis and interpretation of human stories of the past, present, and future in order to understand the processes of continuity and change in individuals and cultures through both documented and imaginative accounts. May be repeated for credit.
Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Examine ways in which beliefs and values affect interpretations of experience and events.
Reason about causes and effects within historical contexts and across historical periods.
Analyze the interrelatedness of human concerns.
Effective in using written and oral communication skills both in form and structure.
Demonstrate strong critical and creative thinking skills.
Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives. Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations.
DHC 141. Humanistic
Understanding II (5).
Variable topic. Courses in the humanities focuses on the analysis and interpretation of
human stories of the past, present, and future in order to understand the processes of continuity and change in individuals and cultures through both documented and imaginative accounts. May be repeated for credit.
Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Examine ways in which beliefs and values affect interpretations of experience and events
Reason about causes and effects within historical contexts and across historical periods
Analyze the interrelatedness of human concerns
Be effective in using written
and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives
Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations

## DHC 150. Aesthetic

Experience I (5). Variable
topic. Courses in this area explore questions about the nature of art; to understand, interrogate, and engage in the creative process; and to explore the connections between art, culture, and history. May be repeated for credit.
Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Participate in
imaginative/artistic production Explain aesthetic experiences and expressions within their historical, artistic, and cultural traditions
Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives

Be effective in using written
and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills
DHC 151. Aesthetic
Experience II (5). Variable
topic. Courses in this area explore questions about the nature of art; to understand, interrogate, and engage in the creative process; and to explore the connections between art, culture, and history. May be repeated for credit. Prerequisite: admission to the Douglas Honors College.
Upon successful completion of this course, the student will be able to:
Participate in
imaginative/artistic production Explain aesthetic experiences and expressions within their historical, artistic, and cultural traditions
Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives Be effective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills
DHC 160. Physical and Biological Systems I (5). Variable topic. Courses in this area study physical and life systems, provide basic methods for rigorously describing the natural world, or treat social, economic, technological, ethical, or other implications of natural phenomena. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Apply scientific methods and forms of inquiry and to describe phenomena and predict consequences
Use knowledge of basic scientific disciplines to examine large and complex physical and life systems Use knowledge of basic scientific disciplines to make
informed decisions and address issues of human concern Be effective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills Demonstrate strong analytical skills including quantitative and experimental techniques Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations
DHC 161. Physical and Biological Systems II (5). Variable topic. Courses in this area study physical and life systems, provide basic methods for rigorously describing the natural world, or treat social, economic, technological, ethical or other implications of natural phenomena. Students will perform scientific inquiry and experimentation in a laboratory setting. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Reason about principles of human behavior for understanding self and others Examine implications of participation in social groups and institutions to inform ethical interaction Apply critical thinking to specific situations involving personal and community decision-making
Be efective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills Demonstrate strong analytical skills including quantitative and experimental techniques Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives

DHC 250. Social and
Behavioral Dynamics I (5). Variable Topic. Courses focus on how individuals, cultures, and societies operate and evolve and introduce disciplined ways of thinking about individuals and groups. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Reason about principles of human behavior for understanding self and others Examine implications of participation in social groups and institutions to inform ethical interaction
Apply critical thinking to specific, situations involving personal and community decision-making
Be effective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills Demonstrate strong analytical skills including quantitative and experimental techniques Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives
DHC 251. Social and
Behavioral Dynamics II (5). Variable topic. Courses focus on how individuals, cultures, and societies operate and evolve and introduce disciplined ways of thinking about individuals and groups. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Reason about principles of human behavior for understanding self and others Examine implications of participation in social groups
and institutions to inform ethical interaction Apply critical thinking to specific situations involving personal and community decision-making Be effective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills Demonstrate strong analytical skills including quantitative and experimental techniques Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives
DHC 260. Cultural Studies I
(5). Variable topic. Courses focus on negotiating cultural differences by applying appropriate patterns of understanding and behavior in culturally diverse settings. Courses focus on one or more non-dominant cultures or peoples of the United States. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Demonstrate a capacity for cultural self-assessment. Observe and analyze the dynamics of cultural interaction.
Critically evaluate evidence of institutionalized cultural assumptions as they affect individuals and groups. Be effective in using written and oral communication skills both in form and structure. Demonstrate strong critical and creative thinking skills. Demonstrate strong analytical skills including quantitative and experimental techniques.
DHC 261. Cultural Studies II
(5). Variable topic. Courses focus on negotiating cultural differences by applying appropriate patterns of understanding and behavior in
culturally diverse settings. Courses focus on comparative cultures across national and continental boundaries. May be repeated for credit. Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Demonstrate a capacity for cultural self-assessment. Observe and analyze the dynamics of cultural interaction.
Critically evaluate evidence of institutionalized cultural assumptions as they affect individuals and groups. Be effective in using written and oral communication skills both in form and structure. Demonstrate strong critical and creative thinking skills. Demonstrate strong analytical skills including quantitative and experimental techniques.
DHC 270. Integrated Learning (5). Variable topic. Courses take an interdisciplinary approach to examining social, economic, technological, ethical, cultural, or aesthetic implications of knowledge. In addition to department courses that embrace multiple disciplines, these opportunities include learning community service learning and international studies courses. May be repeated for credit.
Prerequisite: admission to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Develop an appreciation for the interconnectedness of modes of inquiry across disciplines Identify and explore connections between or among different disciplines to explain or inquire about phenomena Solve problems that require multidisciplinary approaches Be effective in using written and oral communication skills both in form and structure Demonstrate strong critical and creative thinking skills

Demonstrate strong analytical skills including quantitative and experimental techniques Demonstrate the ability to investigate problems new to themselves, draw conclusions; and evaluate source materials utilized in these investigations Interact openly, respectfully, and knowledgeably with those from different backgrounds and perspectives
DHC 290. Cooperative
Education (1-6). An
individualized contracted field experience with business, industry, government, or social service agencies. Requires a student learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit.
Grade will either be S or U .
DHC 296. Individual Study (1-6).
DHC 298. Special Topics (16).

DHC 299. Seminar (1-5). May
be repeated for credit. By permission.
DHC 301. Honors Seminar:
Elements of Research (2). An exploration of research from a multidisciplinary perspective, including the formulation of a research question, organization of the research process, and preparation of DHC thesis or creative project proposal. By permission of department. Course will be offered every year (Spring). Prerequisite: admission to the Douglas Honors College.
Upon successful completion of this course, the student will be able to:
Outline and describe the historical development of research in student's chosen discipline.
Recognize the essential elements of the research process.
Demonstrate mastery of techniques for effective proposal writing. Demonstrate knowledge of electronic and print resources. Apply concepts of authority and validity in developing and
interpreting textual and critical materials.
DHC 380. History of Science
(4). Introduction to major themes in the history of science. Investigation of historical and scientific methods through the study of particular historical cases. May be repeated up to 8 credits with different sub-topics.
Permission by department. Course will be offered every year (Fall, Spring).
Prerequisite: admittance to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Describe the historical development of the scientific process.
Recognize the essential elements of a scientific investigation.
Apply the methods of scientific inquiry to issues of contemporary relevance. DHC 396. Individual Study (1-6).
DHC 397. Honors (1-12).
Prerequisite: admission to department honors program.
DHC 398. Special Topics (16).

DHC 399. Interdisciplinary
Honors Seminar (5).
Interdisciplinary approach to examining current social, economic, ethical, and cultural issues. May be repeated for credit. Prerequisite: admission to the Douglas Honors College.
DHC 401. Honors Capstone
Seminar (3). Skills and techniques for the presentation of the results of interdisciplinary research. Students prepare drafts of their DHC thesis or artist's statement for their creative project as part of their coursework.
Permission by department. Course will be offered every year (Fall). Prerequisites: DHC 301 with at least a grade of B or higher and admittance to the Douglas Honors College.
Upon successful completion of this course, the student will be able to:

Employ effective oral communication skills in describing the methodology and results of a research or creative project.
Effectively critique written and oral presentations of research. Demonstrate effective writing style in describing the methodology and results of a research thesis.
Demonstrate effective writing style in preparing a draft of an artist's statement which describes the work the student is currently engaged in and the concept or philosophy that motivates his/her creativity. Demonstrate how and why the accurate representation of the work referred to or discussed in an artist's statement is critical to the development and reception of a creative artist.
DHC 480. Interdisciplinary Senior Seminar (4). Interdisciplinary approach to examining current social, economic, ethical, and cultural issues. May be repeated up to 8 credits with different subtopics. Course will be offered every year (Winter). Permission by department. Prerequisite: admittance to the Douglas Honors College. Upon successful completion of this course, the student will be able to:
Integrate learning by
transferring theories or methodologies from one discipline to another, and to make connections through and across disciplines.
Develop solutions to contemporary problems that require multidisciplinary approaches.
Critique solutions to contemporary problems that require multidisciplinary approaches.
Assess, evaluate and articulate the influence and context of assumptions and to thoroughly question the viewpoints of experts.
Work effectively in teams to achieve a common purpose; maintain accountability to team
members by meeting analytic and research responsibilities.
DHC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. Requires a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for a total of 12 credits. Grade will either be S or U.
DHC 496. Individual Study (1-6).
DHC 497. Honors Thesis and/or Creative Project (2). Completion of honors thesis or creative project. Students must complete a thesis or creative project approved by their faculty advisor and the DHC director and present at the DHC presentation event to receive credit for the course. Permission by department. Course will be offered every year (Winter). Prerequisites: Students must pass DHC 301 and DHC 401 with a B or higher and admission to the Douglas Honors College.
DHC 498. Special Topics (16).

DHC 499. Seminar (1-5). May
be repeated if subject is different.

## DNCE 101. Modern

Technique I (2). Beginning modern dance theory and technique. Introduction of dance terminology and principles of movement dynamics. May be repeated up to 4 credits. Formerly PED 101, students may not receive credit for both. Course will be offered on on odd numbered years (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define both orally and in written format the academic language of dance.
Demonstrate spatial and kinesthetic awareness. Demonstrate an understanding of the use of dynamics and
their implications for selfexpression.
Apply theoretical knowledge of correct beginning level modern technique in class. Define and demonstrate a basic compositional structure.
DNCE 102. Modern
Technique I (2). Continuation of modern technique and theory at the intermediate beginner level. Continued work on movement dynamics and compositional explorations. May be repeated up to 4 credits. Course will be offered on on odd numbered years (Winter). Formerly PED 102, students may not receive credit for both. Prerequisite: DNCE 101 or instructor permission. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define both orally and in written format the academic language of dance.
Demonstrate spatial and
kinesthetic awareness.
Demonstrate an increased use of dynamics for originality and self-expression.
Apply theoretical knowledge of correct intermediate/ beginning level modern technique in class.
Define and demonstrate use of varied compositional structure.

## DNCE 103. Modern

Technique I (2). Continuation of modern technique and theory at the advanced beginner level. Emphasis on performance qualities and group dynamics. May be repeated up to 4 credits. Course will be offered on on odd numbered years (Summer). Formerly PED 103, students may not receive credit for both. Prerequisite: DNCE 102 or instructor permission.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define both orally and in written format the academic language of dance.

Demonstrate awareness of complicated rhythmic structure as it relates to use of space. Apply theoretical knowledge of correct advanced / beginning level modern technique in class.
Create a group movement project incorporating varied movement dynamics.
DNCE 104. Ballet Technique
I (2). This is an introductory level course in classical Ballet technique, including barre, center work and enchainments (center combinations). No prior experience necessary. May be repeated up to 4 credits. Course will be offered every year (Fall). Formerly PED 104, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Define Beginning Ballet
French Terminology (verbal and written format).
Apply the principles of correct ballet technique. Demonstrate good alignment and body mechanics.
Demonstrate spatial and kinesthetic awareness.
Perform movements with correct body placement and control.
DNCE 105. Ballet Technique
I (2). A continuation of classical Ballet technique at the intermediate beginner level. The course will include barre, center work and enchainments (center combinations). May be repeated up to 4 credits. Course will be offered every year (Winter). Formerly PED 105, students may not receive credit for both. Prerequisite: DNCE 104 or instructor permission. Upon successful completion of this course, the student will be able to:
Define Beginning Intermediate Ballet French Terminology (verbal and written format).
Apply the principles of correct ballet technique.
Demonstrate appropriate alignment and body mechanics. Demonstrate spatial and kinesthetic awareness.

Perform movements with correct body placement and increased control.

## DNCE 106. Ballet Technique

I (2). This course will cover classical Ballet technique at the advanced beginner level. The course will include barre, center work and enchainments (center combinations). May be repeated up to 4 credits. Course will be offered every year (Spring). Formerly PED 106, students may not receive credit for both. Prerequisite: DNCE 105 or instructor permission. Upon successful completion of this course, the student will be able to:
Define Advanced Beginner Ballet French Terminology (verbal and written format). Apply the principles of correct ballet technique. Demonstrate appropriate alignment and body mechanics. Demonstrate spatial and kinesthetic awareness. Perform movements with correct body placement, clarity and increased control.
DNCE 112. Dance
Performance (1). Open to individuals participating in performances of Orchesis Dance Company. May be repeated for 12 credits. Course will be offered every year (Fall, Winter and Spring). Formerly PED 112, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Perform in yearly dance concert and other performing opportunities in the community.
Apply feedback from the rehearsal process to improve their technical and performance skills.
Apply correct body mechanics while dancing.
DNCE 116. Beginning Folk Dance (1). Traditional recreational dances of various countries. Formerly PED 116, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).

DNCE 121. Tap Dance I (1). Formerly PED 121, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).
DNCE 122. Tap Dance II (1). Formerly PED 122, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: DNCE 121.

DNCE 130. American Style
Ballroom Dance I (1). Course includes Social Foxtrot, Waltz, Triple step Swing, Cha Cha and Tango at the beginning level. May be repeated up to 3 credits. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define beginning level
American style ballroom dance vocabulary
Demonstrate beginning level American style ballroom dance steps.
Demonstrate good partnership and social etiquette skills. Demonstrate leading and following skills.
DNCE 131. American Style
Ballroom Dance II (1).
Continuation of Social Foxtrot, Waltz, Triple step Swing, Cha
Cha, and Tango at the intermediate level. May be repeated up to 3 credits. Course will be offered every year (Winter). Prerequisite: DNCE 130 or instructor permission. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define intermediate level
American style ballroom dance vocabulary
Demonstrate intermediate level American style ballroom dance steps.
Demonstrate good partnership and social etiquette skills. Demonstrate leading and following skills.
DNCE 132. American Style Ballroom Dance III (1).
Continuation of Social Foxtrot,

Waltz, Triple step Swing, Cha Cha and Tango at the advanced level. May be repeated up to 3 credits. Course will be offered every year (Spring).
Prerequisite: DNCE 131 or instructor permission. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define advanced level American style ballroom dance vocabulary.
Demonstrate advanced level
American style ballroom dance steps.
Demonstrate good partnership
and social etiquette skills.
Demonstrate leading and following skills.
DNCE 133. International Standard Ballroom Dance I
(1). Course includes, Waltz, Foxtrot, Tango, Viennese Waltz, and Quickstep at the beginning level. May be repeated up to 3 credits. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define beginning level Latin style ballroom dance vocabulary.
Demonstrate beginning level Latin style ballroom dance steps.
Demonstrate good partnership and social etiquette skills Demonstrate leading and following skills.
DNCE 134. International Standard Ballroom Dance II
(1). Continuation of Waltz, Foxtrot, Tango, Viennese Waltz, and Quickstep at the intermediate level. May be repeated up to 3 credits. Course will be offered every year (Winter). Prerequisite: DNCE
133 or instructor permission. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define advanced level Standard style ballroom dance vocabulary.

Demonstrate advanced level Standard style ballroom dance steps.
Demonstrate good partnership
and social etiquette skills.
Demonstrate leading and
following skills.
DNCE 135. International Standard Ballroom Dance III
(1). Continuation of Waltz, Foxtrot, Tango, Viennese Waltz, and Quickstep at the advanced level. May be repeated up to 3 credits. Formerly PED 135, students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: DNCE 134 or instructor permission.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define advanced level Standard style ballroom dance vocabulary
Demonstrate advanced level
Standard style ballroom dance
steps
Demonstrate good partnership
and social etiquette skills
Demonstrate leading and
following skills
DNCE 136. International
Latin Ballroom Dance I (1).
Course includes Rumba, Cha
Cha, Samba, Paso Doble, and
Jive at the beginning level.
May be repeated up to 3
credits. Formerly PED 136, students may not receive credit for both. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define beginning level Latin style ballroom dance vocabulary
Demonstrate beginning level Latin style ballroom dance steps Demonstrate good partnership and social etiquette skills Demonstrate leading and following skills
DNCE 137. International Latin Ballroom Dance II (1). Continuation of Rumba, Cha Cha, Samba, Paso Doble, and

Jive at the intermediate level.
May be repeated up to 3
credits. Formerly PED 137, students may not receive credit for both. Course will be offered every year (Winter).
Prerequisite: DNCE 136 or instructor permission.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to
define intermediate level Latin
style ballroom dance
vocabulary
Demonstrate intermediate level
Latin style ballroom dance steps
Demonstrate good partnership
and social etiquette skills
Demonstrate leading and
following skills
DNCE 138. International
Latin Ballroom Dance III (1).
Continuation of Rumba, Cha
Cha, Samba, Paso Doble, and
Jive at the advanced level. May
be repeated up to 3 credits.
Formerly PED 138, students
may not receive credit for both.
Course will be offered every
year (Spring). Prerequisite:
DNCE 137 or instructor
permission.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define advanced level Latin style ballroom dance vocabulary.
Demonstrate advanced level Latin style ballroom dance steps.
Demonstrate good partnership and social etiquette skills. Demonstrate leading and following skills.
DNCE 141. Jazz Dance I (1).
Formerly PED 141, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).
DNCE 142. Jazz Dance II (1). Formerly PED 142, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: DNCE 141.

DNCE 143. Jazz Dance III
(1). Advanced level jazz dance technique. Formerly PED 143, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).
DNCE 150. Mat Pilates (1). A
beginning and intermediatelevel class, mat pilates is designed to increase core strength, coordination and flexibility. Formerly PED 150, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).
DNCE 155. Pointe and Variations (1). This course will introduce pre-pointe and pointe work techniques in strengthening and alignment specific to the legs, ankles, and feet. Ballet variations from historically significant ballet productions will be studied and learned. May be repeated for 12 credits. Course will be offered every year (Fall, Winter and Spring). Formerly PED 155, students may not receive credit for both. Prerequisites: DNCE 104 and DNCE 105 and DNCE 106 or instructor permission.
Upon successful completion of this course, the student will be able to:
Define Ballet pre-pointe and pointe technique terminology (verbal and written format).
Apply the principles of correct technique.
Perform movements with correct body placement and increased clarity and control. Identify historically significant ballet variations.
DNCE 156. Partnering (1).
This course is designed to introduce beginning level techniques in basic dance partnering. Students will learn how to transfer weight, improve core strength and safely perform lifts with their partner. May be repeated for 4 credits. Formerly PED 156, students may not receive credit for both. Course will be offered every year (Winter).
Prerequisites: DNCE 101 or

DNCE 104 or instructor
permission.
Upon successful completion of this course, the student will be able to:
Perform basic dance partnering technique.
Define basic vocabulary of dance and conceptual information.
Apply the principles of correct placement and body
mechanics.
DNCE 161. Cultural History of Dance (4). A
comprehensive look at the global dynamics of dance, examining the diverse cultural traditions and the innovations that have advanced dance into the 21st century. AH-Aesthetic Experience. Formerly PED
161 , students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Upon successful completion of this course, the student will be able to:
Define the characteristics and genres of dance in different time periods from primitive to contemporary.
Describe the diverse cultural traditions and beliefs in world dance.
Interpret a choreographic work and its social and political implications.
Analyze how an important influence, or innovation affected the development of dance.
DNCE 198. Special Topics (16).

DNCE 201. Modern
Technique II (2).
Continuation of modern technique and theory at the Beginning/intermediate level. Exploration of various styles in Modern dance. May be
repeated up to 4 credits. Course will be offered on odd numbered years (Fall). Prerequisites: DNCE 101 and DNCE 102 and DNCE 103. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define both orally and in
written format the academic language of dance.

## Perform

beginning/intermediate level modern technique correctly with good control of center. Apply compositional elements to classroom combinations to vary structure.
Apply theoretical knowledge of correct beginning level intermediate modern technique in class.
Define and demonstrate use of varied compositional structure.

## DNCE 202. Modern

Technique II (2). Intermediate level modern dance technique and theory. Continuation of series. Emphasis on timing, articulation and performance qualities. May be repeated up to 4 credits. Course will be offered on odd numbered years
(Winter). Prerequisite: DNCE 201 or instructor permission. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define (both orally and In written format) modern vocabulary and theory (academic language). Perform intermediate/advanced technical skills correctly with good control of center and articulation of movements. Analyze the style of a modern dance figure head and construct a combination utilizing their style or approach to movement.
Modify a classroom combination using movement dynamics according to instructions.

## DNCE 203. Modern

Technique II (2).
Continuation of modern technique and theory at the advanced/intermediate level. Emphasis on advanced technique and use of movement qualities. May be repeated up to 4 credits. Course will be offered on odd numbered years (Spring). Prerequisite: DNCE 202 or instructor permission.

Upon successful completion of this course, the student will be able to:
Demonstrate the ability to define (both orally and in written format) and perform advanced modern dance technique.
Evaluate modern works of choreography posted by faculty on Canvas.
Perform intermediate/advanced level modern dance using expressive qualities, movement elements and technical proficiency.
DNCE 204. Ballet Technique
II (2). Continued training in classical ballet techniques at a beginning/intermediate level, including barre and center work. Increased emphasis on beats, multiple turns, and jumps. May be repeated for 4 credits. Formerly PED 204, students may not receive credit for both. Course will be offered every year (Fall). Prerequisite:
DNCE 104 and DNCE 105 and
DNCE 106 or instructor permission.
Upon successful completion of this course, the student will be able to:
Define Ballet French
Terminology (verbal and written format).
Apply the principles of correct ballet technique. Demonstrate good alignment and body mechanics. Demonstrate spatial and kinesthetic awareness. Perform movements with correct body placement and increased clarity and control.
DNCE 205. Ballet Technique
II (2). Continued training in classical ballet at the intermediate level, including barre and center work. Increased emphasis on beats multiple turns and jumps. By permission. May be repeated for 4 credits. Formerly PED 205, students may not receive credit for both. Course will be offered on even numbered years (Winter). Prerequisite: DNCE 204 or instructor permission.

Upon successful completion of this course, the student will be able to:
Define Ballet II French
terminology (both orally and in written format).
Apply the principals of correct Ballet II technique.
Demonstrate good body alignment and mechanics, and refine technical skills. Demonstrate performance quality center work.
DNCE 206. Ballet Technique
II (2). Continued training in classical ballet technique at the advanced intermediate level, including barre and center work. Increased emphasis on beats, multiple turns and jumps. May be repeated for 4 credits. Formerly PED 206, students may not receive credit for both. Course will be offered on even numbered years (Spring). Prerequisite: DNCE 205 or instructor permission. Upon successful completion of this course, the student will be able to:
Interpret Ballet French
Terminology (verbal and written format). Identify and apply the principles of accurate ballet technique, correct alignment and body mechanics. Demonstrate greater spatial and kinesthetic awareness. Examine and appraise ballet performance(s).
DNCE 212. Dance
Performance (2). By audition.
Participation in 2-4 pieces of choreography for performances of the Orchesis Dance Company. Permission by instructor. May be repeated for up to 18 credits. Formerly PED 212, students may not receive credit for both. Course will be offered every year (Fall, Winter and Spring).
Upon successful completion of this course, the student will be able to:
Perform in yearly dance concert and other performing opportunities in the community.
Apply feedback from the rehearsal process to improve
their technical and performance skills.
Apply correct body mechanics while dancing.
DNCE 298. Special Topics (1-
6). May be repeated if subject is different.
DNCE 299. Seminar (1-5).
May be repeated if subject is different.
DNCE 300. Dance
Composition (3). This course is an introduction to dance composition. The students will explore movement invention through improvisation, readings and discussion. Through this exploration students will begin to discover the choreographic process as well as their choreographic voice. Course will be offered on even numbered years (Fall). Upon successful completion of this course, the student will be able to:
Begin to employ an understanding of the choreographic /creative process and its relevance to other areas of study.
Experiment with approaches to movement invention through the use of body, space, time and effort.
Examine and demonstrate various choreographic structures.
Practice creative dancemaking, posing questions, and problem solving.
Analyze aesthetic components of dance composition.
DNCE 304. Ballet Technique
III (2). Beginning Advanced training in classical Ballet
technique. Emphasis on developing performance quality movement, musicality and attention to detail. May be repeated up to 4 credits. Course will be offered on even numbered years (Fall). Prerequisite: DNCE 204 and DNCE 205 and DNCE 206 or permission.
Upon successful completion of this course, the student will be able to:
Interpret Beginning Advanced Ballet Terminology (verbal and written format).

Apply and refine Beginning Advanced principles of accurate ballet technique, correct alignment and body mechanics.
Construct sequential movement patterns with varying dynamics and phrasing.
Examine and re-create historical and contemporary ballet performances.
DNCE 305. Ballet Technique
III (2). Intermediate Advanced training in classical Ballet technique. Emphasis on developing performance quality movement, musicality and attention to detail. May be repeated for 4 credits. Course will be offered on even numbered years (Winter). Prerequisite: DNCE 304 or instructor permission. Upon successful completion of this course, the student will be able to:
Interpret Intermediate
Advanced Ballet Terminology
(verbal and written format).
Apply and refine Intermediate
Advanced principles of
accurate ballet technique, correct alignment and body mechanics.
Evaluate movement sequences and incorporate individualized musical phrasing and artistry.
Examine and assess the various
styles of Ballet training
(Vaganova, Cecchetti,
Bournonville, etc.)
DNCE 306. Ballet Technique
III (2). Advanced training in
classical Ballet technique.
Emphasis on developing performance quality
movement, musicality and attention to detail. May be repeated up to 4 credits. Course will be offered on even numbered years (Spring). Prerequisite: DNCE 305 or instructor permission. Upon successful completion of this course, the student will be able to:
Interpret Advanced Ballet
Terminology (verbal and written format).
Apply and refine Advanced principles of accurate ballet
technique, correct alignment and body mechanics.
Appraise and support choices made in regards to movement dynamics, musical phrasing and adaptability to choreographic style. Construct a movement combination based in a specific style of Ballet training (Vaganova, Cecchetti, Bournonville, etc.).
DNCE 309. Teaching Methods: Recreational Dance
(3). Knowledge of skills necessary in the teaching of various forms of recreational dance styles. Two hours lecture and two hours laboratory per week. Formerly PED 309, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer).
DNCE 311. Music for Dance

- Rhythms and Resources (3). A study of rhythmic concepts as related to dance movements and composition; an introduction to music resources emphasizing
composer/choreographer collaborations. Course will be offered on odd numbered years (Fall). Formerly PED 211, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Understand basic rhythmic structure.
Learn how to play simple rhythm and percussion instruments. Identify various types and styles of music.
Recognize composers of significance in the dance world.


## DNCE 312. Dance

Performance (3). By audition. Participation in choreography for performances of the Orchesis Dance Company. May be repeated up to 18 credits. By permission of instructor. Course will be offered every year (Fall, Winter, and Spring).

Upon successful completion of this course, the student will be able to:
Create original choreography
for spring performance and teach through the rehearsal process to their peers. Apply feedback from the rehearsal process to improve the compositional aspects of the performance piece. Choreographic work is adjudicated and accepted in the yearly show.

## DNCE 314. Dance for

Children (3). Strategies for teaching dance in elementary education, including creative dance, rhythmic exploration, use of props, unit plan development, and methods of assessment. Formerly PED 314 , students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: current WSP/FBI fingerprint clearance.
DNCE 315. Teaching Methods: Modern and Ballet
Dance (4). Teaching methods for modern and ballet technique classes which emphasizes the development of critical and creative thinking skills, observations skills, and assessment skills. May be repeated up to 8 credits. Formerly PED 315, students may not receive credit for both. Course will be offered on odd numbered years (Winter). Prerequisites: DNCE 101 and DNCE 104.
Upon successful completion of this course, the student will be able to:
Use the academic language of dance proficiently in planning and teaching.
Demonstrate dance technique and cue exercises correctly using musical accompaniment and counts.
Apply effective teaching skills in the classroom.
Develop an evaluation process for the dance classroom.
DNCE 355. Principles of Functional Alignment for Dance (3). This course is a study of anatomical principles
that apply to dance training and performance. Emphasis on optimal dance posture and efficient movement by gaining an understanding of the bones, joints and muscles in movement. Course will be offered on odd numbered years (Spring).
Upon successful completion of this course, the student will be able to:
Develop a clear understanding of skeletal structures, muscles, and their actions, in relation to dance.
Awareness of proper alignment in the dance technique class and how this relates to establishing a more informed practice.
Analysis and identification of misalignment issues and muscular imbalances in the dance technique class.
Recognize the benefits of the use of somatic practices to enhance dance technique.
DNCE 360. Dance Injury
Prevention (3). The purpose of this course is to explore dance related injuries and their most common causes, analyze movement tendencies, and investigate research to reduce injury, expel myths and enhance performance. Course will be offered on odd numbered years (Spring). Prerequisite: DNCE 355. Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of fundamental body mechanics and principles of correct anatomical body alignment in order to train safely and efficiently. Analyze common dancerelated injuries and their causes.
Assess general principles of dance injury prevention as well as specific exercises to increase strength, flexibility, mobility and control in the dance classroom
Design a dance specific conditioning program using current research and resources.

DNCE 396. Individual Study
(1-6). May be repeated if subject is different.
DNCE 397. Honors (1-12).
Prerequisite: admission to department honors program.
DNCE 398. Special Topics (1-
6). May be repeated if subject is different.
DNCE 399. Seminar (1-5).
May be repeated if subject is different.
DNCE 401. Choreography
(4). The study and practice of choreographic techniques and tools utilizing creative problem solving. May be repeated up to 8 credits. Formerly PED 301, students may not receive credit for both. Course will be offered on on odd numbered years
(Fall). Prerequisite: DNCE 300.

Upon successful completion of this course, the student will be able to:
Describe choreographic processes and approaches to creating movement. Use choreographic structures and problem solving techniques in developing innovative movement sequences.
Use an integrated arts approach to create a dance work.

## DNCE 402. Dance

Production (4). Aspects of organizing and mounting a dance production, including scheduling, programming, publicity, costuming, lighting, and sound design. May be repeated up to 8 credits. Formerly PED 302, students may not receive credit for both. Course will be offered on even numbered years (Winter). Upon successful completion of this course, the student will be able to:
Determine the personnel needs and responsibilities required in producing a dance production. Use the equipment involved in technical theatre by designing the lights for a piece of choreography.
Design printed material for a production, including a poster design, costumes designs, and a publicity release.

Define the technical language used to identify lighting equipment.
DNCE 420. Capstone Project
(1). Students will design an online portfolio developed on a personal website, which represents a comprehensive synthesis of the knowledge they have gained during their years in the program in the areas of choreography, research, and performance. May be repeated up to 3 credits. By premission of instructor. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Design a personal web site for an online portfolio.
Create an online portfolio that features student expertise in teaching, choreography, and performance.
Collect and assemble all components for the portfolio such as current vitae, teaching philosophy, video clips, etc.
DNCE 495. Practicum (1-4).
Dance teaching practicum. Students will teach dance in a variety of settings including K12, private studios, special education and geriatrics. May be repeated up to 12 credits. Course will not have an established scheduling pattern. Prerequisites: DNCE 309 and DNCE 314 or DNCE 315 or permission of instructor. Upon successful completion of this course, the student will be able to:
Apply classroom principles to a practical experience working in a dance setting. Identify and demonstrate an understanding of the policies and procedures needed to ensure a safe and effective working environment for students.
Demonstrate professional behavior appropriate to the situation.
Apply theory and principles to the work situations. Evaluate knowledge and skills used in dance teaching through
observation and applied application.
DNCE 496. Individual Study
(1-6). May be repeated if subject is different.
DNCE 497. Honors (1-12).
Prerequisite: admission to department honors program.
DNCE 498. Special Topics (1-
6). May be repeated if subject is different.
DNCE 499. Seminar (1-5).
May be repeated if subject is different.
ECON 101. Economic Issues
(5). For the student who desires a general knowledge of economics. Applications of economic principles to current social and political problems.
ECON 101 cannot be substituted for either ECON 201 or 202. SB-Perspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter). Upon successful completion of this course, the student will be able to:
Articulate an understanding of basic microeconomic and macroeconomic concepts based on analysis of relevant theories, empirical evidence and current events, as applied to the US economy Explain how economics values diverse economic activities and experiences in the US Analyze local, regional and national institutional frameworks underlying the US economic system and relationships arising from it Describe how economic developments in the US have shaped economic policy on issues such as healthcare, economic inequality, regulation
ECON 102. World Economic
Issues (5). An introduction to current international issues related to international trade and finance, economic development, and comparative economic systems. SB-
Perspectives on World
Cultures (W). Course will be offered every year (Fall, Spring).

Upon successful completion of this course, the student will be able to:
Demonstrate an ability to think critically in regards to global issues and its impacts on local, regional and national communities.
Demonstrate ability to analyze global economic outcomes such as economic inequality, global public health, economic institutions, global market structures, international migration, and global health. Demonstrate an ability to identify, analyze and evaluate processes of globalization and the consequences of integrated economics in a historical context.
Develop ability to identify and address complex global economic issues using a variety of economic policy instruments, and more interdisciplinary approaches from other social sciences and humanities.
ECON 130. Foundations for Business Analytics (5). Role of mathematics, statistics and software to business and economic decision making; business and economics applications including indexing, percentage changes, compounding, financing, and accounting; probability theory and descriptive statistical analysis; modelling. Includes a lab component. Basic Skills 5 Reasoning. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26-Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.
Upon successful completion of this course, the student will be able to:
Develop critical thinking skills by applying basic components of logic to business decision making.
Demonstrate competence in basic mathematical modelling by using appropriate computer software to make practical business decisions.

Apply various quantitative methods used in business decision making to real world situations. Students will use appropriate software to make compounding, percentage calculations, index development, savings and mortgage calculations. Demonstrate competence in basic probability theory by analyzing normal distributions and drawing conclusions from data.
Analyze simple data by developing summary statistics and graphs.

## ECON 201. Principles of

 Economics Micro (5). Introduction to standard economic models used to examine how individuals and firms make decisions under different market structures; role of government in the economy in addressing market failure and efficiency equity tradeoff. SB-Perspectives on Cultures and Experiences of U.S. Course will be offered every year (Fall, Winter, Spring, Summer).Upon successful completion of this course, the student will be able to:
Describe how individuals and businesses interact in various market structures to determine price and quantity of a good produced
Identify major characteristics of different market structures and the implications for the behavior of the firm. Articulate the difference between efficiency and equity, and implications of this tradeoff on government policy such as social welfare, environmental policy, health insurance, retirement. Analyze the difference between economic systems such as capitalism and socialism.
Apply both theoretical and empirical economic reasoning to individual and firm behavior.
ECON 202. Principles of Economics Macro (5).
Organization of the U.S.
economy, structure, and role of the monetary system, problems of employment and inflation, overall impact of government spending and taxation on the economy. Economic growth, world economic problems, and a comparison of capitalism with other economic systems. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: ECON 201.

Upon successful completion of this course, the student will be able to:
Develop an ability to graphically model and analyze present, historical, global and national macroeconomic issues Demonstrate an understanding of economic and institutional factors determining global differences in economic growth
Demonstrate an understanding of concepts and processes underlying the relationships between the following macroeconomic and global variables:
GDP (real and nominal)
Sources of economic growth (including capital
accumulation, technological innovation, and productivity growth)
Inflation
Unemployment
Fiscal policy (including
government spending, taxation,
budget deficits, and national debt)
Monetary policy (including
money supply, interest rates, and the structure of the U.S. banking system)
Consumption spending, saving,
wealth, and investment
Exchange rates, exports, and imports
Develop ability to apply
economic theory addressing
contemporary macroeconomic
and global policy issues
ECON 298. Special Topics (1-6).
ECON 299. Seminar (1-5).
May be repeated if subject is different.
ECON 310. International
Economics (5). International
trade and monetary theories; analyzing economic relationships and adjustments within and among trading nations; specialization, tariffs, balance of payments, and international monetary systems. Course will be offered every year (Winter). Prerequisite: ECON 201. Upon successful completion of this course, the student will be able to:
Analyze the basis for international trade.
Justify the case for free trade and assess the case for trade protectionism.
Examine the balance of payments system.
Examine the foreign exchange market.
Analyze the determinants of exchange rates.

## ECON 325. Introduction to

Forecasting (5). An introduction to methods employed in business and econometric forecasting. Topics include time series modeling, Box-Jenkins models, and seasonal adjustments. Covers data collection methods, graphing, model building, model interpretation, and presentation of results. Prerequisites: ECON 202 and either MATH 153, MATH 154, MATH 170, MATH 172, or MATH 173.
Upon successful completion of this course, the student will be able to:
Master the microeconomic and macroeconomic principles that are used to interpret economic and business forecasts.
Demonstrate knowledge of mathematical tools that are used to prepare economic and business forecasts.
Show competence in using
computer software packages to complete forecasting applications.
Demonstrate the ability to interpret their economic and business forecasts and explain them to others. ECON 330.
Money and Banking (5). The supply of money and the
Federal Reserve System;
financial intermediaries and financial instruments; macroeconomic theory and policy. Prerequisite: ECON 202.

ECON 332. Public Finance
(5). Rationale of public sector; effect of government expenditure and taxation on resource allocation and income distribution; structure of federal, state, and local tax systems. Emphasis is on current policy problems. Prerequisite: ECON 202.
ECON 348. Economic Development of the United States (5). Economic factors in the development of the American nation from the European background to the present.
Upon successful completion of this course, the student will be able to:
Identify the factors that have influenced the pace of long run economic growth in the American economy Recognize the key institutional, organizational, political, social, and cultural changes that have influenced the course of American economic development
Evaluate, analyze and support a position regarding issues found in American economic history
Incorporate critical thinking skills in the evaluation and communication of issues reflected in American economic history.
ECON 349. Economic Development of Asia (5). This course analyzes the post-war economic development of Asia. Dubbed the "Economic miracle of the 20th century" by the World Bank, the rapid economic rise of China, Taiwan, Japan, South Korea, India, and Singapore will be covered. Topics will include industrialization, state-society relations, labor migration, and the environment.
Upon successful completion of this course, the student will be able to:

Identify the major forces, both global and regional, that have affected the post-war economic development of Asia
Compose concise and coherent essays.
Identify the business systems in several Asian countries, how and why they are similar and/or different, the relationship of the business systems to the history and culture of that nation, and the special business advantages of each nation.
ECON 352. Managerial
Economics (5). Application of microeconomic theories to managerial decisions and planning utilizing the case method. Prerequisites: ECON 202 and BUS 221.
Upon successful completion of this course, the student will be able to:
Use marginal analysis to critically analyze problems; and demonstrate the efficiency of this analytical tool by building scenarios in which this method of analysis can be used to develop optimum managerial decisions. Demonstrate a probability theory. The student must be able to analyze statistical data, and interpret regression results.
demonstrate an ability to use calculus to interpret economic models and equations; and hence analyze complex empirical equations. Explain and interpret using economic theories, economic scenarios which generate alternative solutions. They will be asked to compare and contrast the different equilibrium solutions and decide on the optimum solution.

## ECON 355. Economics of

Labor (5). Economics of the labor market, labor, productivity, investment in human capital, manpower problems, and public policy. Prerequisite: ECON 202.
ECON 356. Government and
Business (Put on reserve
$9 / 16 / 16$ ) (5). The development
and current status of relations between the U.S. government and business firms. Government regulation of competition and monopoly; subsidies and public enterprise. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Prerequisite: ECON 201.
Upon successful completion of this course, the student will be able to:
Identify market inefficiencies that have the potential for improvement via governmental regulation.
Identify inefficiencies and other limitations of the regulation of markets by government.
Identify market inefficiencies that have the potential for improvement via the application of antitrust law. Identify inefficiencies and other limitations of using antitrust laws to limit monopoly power.
ECON 396. Individual Study
(1-6). May be repeated if subject is different.
ECON 397. Honors (1-12).
Prerequisite: admission to department honors program. ECON 398. Special Topics (1-6).
ECON 399. Seminar (1-5). May be repeated if subject is different.
ECON 401. Intermediate Microeconomic Analysis (5). Markets as mechanisms for organizing and directing human activities; production of goods and services; the allocation of labor, capital, and natural resources to various productive activities; and the distribution of income. Relationship between microeconomics theory and contemporary thought, practical problems and government policies. Prerequisite: ECON 201. Upon successful completion of this course, the student will be able to:
Use demand and supply models to analyze a variety of changes in market
circumstances and government policies.
Develop theory of demand from assumptions concerning consumer preferences and income constraints.
Develop theories of cost and supply from underlying production relationships and input prices.
Analyze the effect of changes in market structure on firm behavior.
Describe the nature of economic efficiency and its relationship to market structure.
Use economic efficiency to analyze the effects of government policy on markets.

## ECON 402. Intermediate

 Macroeconomic Analysis (5).Analysis and measurement of U.S. national income and product accounts; determinants of income, employment and prices under the Classical and Keynesian systems; problems of inflation, economic growth and stabilization policy. Prerequisite: ECON 202. Upon successful completion of this course, the student will be able to:
Demonstrate the incomeexpenditure and IS-LM models; theories of consumption; investment and economic growth; expectations and economic policy in an open economy.
Use macroeconomic models to interpret policy problems and questions
Know of the main contributions of the leading school of macroeconomic thought, as well as areas of agreement and remaining controversy.
Demonstrate the structure and use of macroeconomic models; they will evaluate alternative economic models using both economic theory and empirical results.

## ECON 406. Business

Analytics (5). Introduction to business analytics methods, approaches and tools. Students develop skills in: descriptive and predictive analytics
methods; software tools for business analytics; forecasting;
optimal analysis method selection. Course will be offered every year (Spring).
Prerequisites: BUS 221 or MATH 311 or PSY 362 or SOC 363.
Upon successful completion of this course, the student will be able to:
Employ business analytics techniques (descriptive, predictive and prescriptive) to analyze common business problems.
Calculate, describe and analyze relevant business metrics (ex. sales, costs, market conditions, etc.) using appropriate software.
Predict values of relevant business metrics (sales, costs, market conditions, etc.) using appropriate software. Propose data driven prescriptions of business problems based on descriptive and predictive business analysis.
Integrate knowledge and skills from undergraduate courses in analytics, writing and General Education
Synthesize and present a business analytics/economics report based on individual creative work
ECON 424. Introduction to
Econometrics (5). Evaluation
of economic models and forecasting of economic variables using multiple regression techniques and cross sectional data. Brief introduction to advanced techniques which may include IV, time series, logit and probit, or panel data methods.
Formerly ECON 324, students my not receive credit for both. Prerequisites: BUS 221 or MATH 311 or PSY 362 or SOC 363.
Upon successful completion of this course, the student will be able to:
Construct a linear econometric model that may be used to evaluate the validity of an economic model.

Enter data into regression software packages, and use that data to estimate linear econometric models. Determine the statistical significance of variables in linear econometric estimations. Forecast the value of dependent variables for given values of independent variables.
Test and correct for heteroskedasticity. Identify functional form misspecification, including omitted variable bias, and correct for misspecification with additional variables, proxy variables, and instrumental variables.
ECON 426. Economic
Research (5). Students will undertake several applied economics research projects, drawn from the entire spectrum of economic fields (including, potentially, general business and finance.) Project results will be presented both in writing and orally. Prerequisites: ECON 202 and BUS 221.
Upon successful completion of this course, the student will be able to:
Model, and analyze, applied economic topics drawn from the spectrum of economic fields (including general business and finance.) Orally present the results of their research.
ECON 462. Environmental and Resource Economics (5). Economics of environmental issues and natural resource management; economic implications of environmental policies and regulations. Topics in economics of pollution, land, water, recycling, and benefit-cost analysis. Prerequisite: ECON 201.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of methods used in environmental valuation including revealed and stated preferences methods.

Demonstrate the ability to apply basic benefit-cost analysis to environmental and resource policy decision making.
Show competence in using optimal resource extraction methods.
Demonstrate knowledge of historical and current issues in the economics of pollution including issues of water, toxics, air and climate change. Demonstrate knowledge of historical and current issues in the economics of natural resource extraction and conservation including issues of land, water, forests, mining, fisheries, recycling and agriculture.

## ECON 463. Energy

Economics (5). Theoretical and empirical perspectives on economics of energy; political economy of energy supply and demand; regulation in energy sector; analysis of prevalent market structures; economics of oil, coal, electricity generation, natural gas and alternative energies.
Prerequisite: ECON 201.
Upon successful completion of this course, the student will be able to:
Master the microeconomic principles that are used to analyze energy markets. Demonstrate knowledge of historical and current issues in the economics of energy including issues of energy regulation, privatization, externalities, production and distribution.
Demonstrate knowledge of historical and current issues associated with the economics of coal, nuclear, natural gas, oil, and alternative energy industries.

## ECON 490. Cooperative

## Education (1-12). An

 individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and facultycoordination. By permission. May be repeated for credit. Grade will either be S or U .
ECON 493. Economics Boot
Camp (1-6). Supervised field experience focused on economics
related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. May be repeated up to 6 credits. Grade will either be S or U. Permission of instructor. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp
Exhibit professional behavior
and appropriate business skills in industry setting.
Establish a professional network within the industry professionals
Illustrate an awareness of the organization(s) participating in the boot camp.
ECON 496. Individual Study (1-6).
ECON 497. Honors (1-12).
Prerequisite: admission to
department honors program.
ECON 498. Special Topics (1-6).
ECON 499. Seminar (1-5).
ECTL 201. CWU Youth
Mentoring I (3). Compass 2
Campus (C2C) is a class designed as an introduction to service-learning. Students participate in a campus wide mentoring initiative designed to encourage under-
represented, low-income, first generation, and diverse fifthtwelfth grade students to graduate from high school and consider post-secondary education. May be repeated up to 9 credits.
Upon successful completion of this course, the student will be able to:
Identify and Demonstrate mentoring best practices in the classroom

Communicate orally and in writing effectively and professionally with lead mentors and school staff. Demonstrate best practices when working with at-risk youth in the classroom. Demonstrate cultural competence and awareness of differences when interacting with youth and school personnel.
ECTL 298. Special Topics (1-
6). May be repeated if subject is different.
ECTL 299. Seminar (1-5).
May be repeated if subject is different.
ECTL 396. Individual Study
(1-6). May be repeated if subject is different.
ECTL 397. Honors (1-12).
Prerequisite: admission to department honors program.
ECTL 398. Special Topics (1-
6 ). May be repeated if subject is different.
ECTL 399. Seminar (1-5).
May be repeated if subject is different.
ECTL 470. Alternative
Pathways to Teaching:
Seminar Series (3). Reserved for candidates in Alternative Pathways to Teaching (APT). Introduces candidates to the technical skills of teaching by using case studies with embedded problems encountered in Washington public schools. Students will solve the problems through individual online research and group discussion. Seminar topics include online learning, inquiry-based learning, assessment, professional, legal and ethical requirements, special education and English language learners. Department consent required. Grade will either be S or U .
Upon successful completion of this course, the student will be able to:
Identify different approaches to learning according to students diverse cultural and linguistic backgrounds.
Apply principles of differentiated instruction, including theories of language
acquisition, stages of language, and academic language
development.
Use appropriate assessments to
Identify verbal and writing
language needs.
Identify appropriate
professionals with whom to
work regarding the special education needs of a child.
Use appropriate terminology regarding students with special needs.
Discuss their roles and responsibilities in reporting suspected child abuse using appropriate protocols.
Use assessment driven data to drive planning decisions regarding mathematics use in the classroom.
Discuss state and teacher assessment data with parents and other consumers.
Discuss learner-centered and inquiry-based practices in the classroom and create a lesson that incorporates these strategies in the classroom. Compare the 21st century classroom to the traditional model
Discuss the role of technology
in the classroom and use a technology tool to create a lesson.
Discuss Standard V, the TPA, and Online APT
ECTL 480. Alternative Pathways to Teaching: Curriculum Planning (3). Course reserved for candidates admitted into the APT Regional Consortia Program. Candidates will learn about and develop practical lesson planning, management, and assessment strategies, as well as methods and models of teaching, including reflection and analysis. Prerequisite: full admission to CWU, and the APT Regional Consortia Program. Grade will either be S or U.
Upon successful completion of this course, the student will be able to:
Demonstrates ability to use technology to enhance student learning. WAC 180-78A270(1)(1)

Identify technological resource available in their
building/district.
Identify P-12 student needs in regards to:
Technology usage and understanding Accommodations to be successful in the use of technology.
Use appropriate assessments to ensure student success in the use of technology, where applicable
Demonstrate an understanding of different learning modalities and instructional approaches
Use a set of strategies to assess teacher effectiveness Exhibit culturally responsive teaching
Use multiple instructional strategies to address individual student needs Develop and implement specific accommodations Use differentiated instructional strategies to create learning experiences for all students Demonstrate standards of conduct clearly related to democratic civility
Demonstrate the use of assessment to improve
teaching and programs
ECTL 490. Alternative Pathways to Teaching: Internship (6). Course reserved for Alternative Pathways to Teaching (APT) Program. Candidates will be required to complete a school year-long internship in a public school setting to satisfy legislative requirements using a co-teaching model. The final quarter the candidate must take and pass the Teacher Performance Assessment before exiting the program and applying for certification. Must be repeated for 3 quarters for a total of 18 credits. Department consent required. Grade will either be S or U .
ECTL 496. Individual Study (1-6). May be repeated if subject is different.
ECTL 497. Seminar (1-12).
Prerequisite: admission to department honors program.

ECTL 498. Special Topics (16). May be repeated if subject is different.
ECTL 499. Seminar (1-5).
May be repeated if subject is different.
EDBL 250. Ethnic and Cultural Minorities in American Education: Past
and Present (4). This course will provide students the opportunity to explore, analyze, and present information related to the educational experiences of ethnic and cultural minorities in America. This will include both historical and contemporary conditions. Course will be offered every year (Fall, Winter). Upon successful completion of this course, the student will be able to:
Demonstrate comprehension of historical conditions of minorities in American education system. Analyze and present information on historical and contemporary issues of minorities in American education system. Formulate a plan to improve a current condition of minorities in American education system.
EDBL 296. Individual Study (1-6).
EDBL 298. Special Topics (16).

EDBL 299. Seminar (1-5).
EDBL 299. Seminar (1-5).
May be repeated if subject is different.
EDBL 312. Foundations in Bilingual Education (3).
Introduction to the education of students whose primary language is other than English. Research on linguistic, social and community issues pertaining to bilingualism and bilingual education. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Explain orally and in writing these concepts and issues related to bilingual education:
nature of bilingualism, second
language acquisition,
interaction of bilingualism and intelligence.
Identify and critique ways in which educational policy affects educational practice in situations involving children who are culturally and linguistically different. Examine, critique, and develop recommendations related to program design and implementation.
Develop and implement a plan for researching an issue of importance in the area of bilingual education and bilingualism.
EDBL 318. Family, Community, and Culture in Education (3). This course will explore the impact of families, communities, and culture on the educational experiences of students. Particular focus will be on the families and communities of diverse populations. Course will be offered every year (Fall, Winter). Prerequisite: Conditional admission to the Teacher Certification Program or completion of the Teacher Certification Waiver letter. Upon successful completion of this course, the student will be able to:
Explain the concept of culture and its relationship to classroom instruction. Advocate for the active involvement of diverse families and communities in school.
Challenge existing cultural misconceptions within the community and/or school that may limit opportunities of linguistically diverse students
EDBL 396. Individual Study (1-6).
EDBL 397. Honors (1-12).
Prerequisite: admission to department honors program.
EDBL 398. Special Topics (16).

EDBL 399. Seminar (1-5).
May be repeated if subject is different.
EDBL 401. Principles and Practices for Educating

## Linguistically Diverse

Students (3). Required
coursework that provides the fundamental background in language and learning theories needed to educate linguistically diverse students. The basics of sheltered instruction are introduced. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program Upon successful completion of this course, the student will be able to:
Utilize classroom-based
theories leading to methodologies by documenting second language acquisition (SLA) and learning theories needed for implementing instruction in the classroom. Explain and apply the relationship between the theories and classroom practices.
Utilize sheltered instruction methodology to improve the educational experiences of linguistically diverse students by preparing lesson plans that include methods and techniques needed by ESL students.
Facilitate interactions between
ESL and English speaking students.
Use the Washington State
English Language
Development guidelines to assist in making appropriate modifications to learning events.
EDBL 430. Sheltering Instruction for Linguistically Diverse Students (3). This course provides teacher candidates the basic competencies and skills needed to make appropriate modifications and accommodations for linguistically diverse students in content area instruction. Prerequisites: students must be admitted to the bilingual education/TESL minor or
teaching English as a second language minor.
Upon successful completion of this course, the student/teacher candidate will be able to: Identify and articulate the appropriate theoretical basis for sheltering strategies and techniques Identify effective sheltering strategies and techniques Modify and/or adapt existing curriculum to create curriculum appropriate for English Language Learners using a variety of sheltering techniques and strategies
Use English Language Proficiency Standards to guide instructional practices.
EDBL 433. Educational
Linguistics (3). Phonology, syntax, and semantics applicable to speech and learning situations in the school. Not recommended for undergraduates with no teaching experience. Prerequisite: full admission to the Teacher Certification Program.
EDBL 435. Bilingual Education in the Content Areas (3). Designed to develop teacher competency related to the bilingual instruction of coursework in language arts, social studies, science and mathematics in both English and Spanish. The use of ESL in these content areas is emphasized. Taught in English and Spanish. Prerequisite: admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Explain orally and in writing different manners of organizing and presenting bilingual instruction. Identify and implement effective instructional practices used in providing effective learning opportunities in bilingual settings.
Examine, critique, and develop recommendations related to course materials and texts in a bilingual setting.

EDBL 438. Teaching English as a Second Language (3).
Prepares teachers in the development and practice of research-based methods and techniques used to assist K-12 English Language Learners in acquiring academic English. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Apply appropriate methodologies and applications. Apply appropriate teaching strategies and skills. Assist ESL students in integrating into mainstream school setting. Apply fundamental theories and principals upon which effective practices are based.
EDBL 439. Assessment of Linguistically Diverse Students (3). This course prepares students to use effective assessment programs and techniques with linguistically diverse students in order to improve identification, reclassification, and teaching of such students. Prerequisite: admission to the Teacher Certification Program. Upon successful completion of this course, the student/teacher candidate will be able to: Document understanding of procedures used for identification, placement, and reclassification of linguistically diverse students
Document understanding of classroom based assessment procedures needed to document student progress in speaking, listening, reading, writing, and academic content. Document understanding of testing bias, as those procedures that can be used to limit such bias.
EDBL 440. Development of Literacy with Linguistically Diverse Students (3). Reading instruction for K-12 students who are speakers of a language other than English. Linguistic theory and information for
developing and implementing strategies and techniques for literacy acquisition in English. Prerequisite: full admission to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Identify and explain diverse perspectives of the concept of literacy.
Summarize linguistic theory and research applicable to the development of second language literacy. Describe research-based, methods and techniques that foster the literacy development of ESL learners.
Select, adapt, and develop appropriate materials and instructional sequences.
Describe and conduct procedures and methods appropriate to the assessment of second language readers and writers.
EDBL 492. Practicum (1-15).
This course will provide students with experience working in bilingual education and/or English as a second language settings. Students may accumulate no more than 15 hours of practicum credit. May be repeated up to 15 credits. Grade will either be S or U. Prerequisite: students must have completed four courses in the Bilingual Ed or Teaching ESL minor, and admission to the Teacher Certification program and current WSP/FBI fingerprint clearance.
EDBL 496. Individual Study (1-6).
EDBL 497. Honors (1-12).
Prerequisite: admission to department honors program.
EDBL 498. Special Topics (16).

EDBL 499. Seminar (1-5).
EDCS 298. Special Topics (1-
6). May be repeated if subject is different.
EDCS 299. Seminar (1-5).
May be repeated if subject is different.
EDCS 312. Educational
Statistics (4). Use and
interpretation of elementary statistical techniques.
EDCS 392. Practicum (3-5).
Practical experience in a stateapproved K-12 educational setting. Grade will either be S or U.
EDCS 396. Individual Study (1-6). May be repeated if subject is different.
EDCS 397. Honors (1-12).
Prerequisite: admission to department honors program.
EDCS 398. Special Topics (1-
6). May be repeated if subject is different.
EDCS 399. Seminar (1-5).
May be repeated if subject is different.
EDCS 492. Practicum (1-15). Experience working in educational settings. Students may accumulate no more than 15 hours of practicum credit. May be repeated for credit. Grade will either be S or U . EDCS 496. Individual Study (1-6). May be repeated if subject is different.
EDCS 497. Honors (1-12).
Prerequisite: admission to department honors program. EDCS 498. Special Topics (16). May be repeated if subject is different.
EDCS 499. Seminar (1-5).
May be repeated if subject is different.
EDEC 232. Child
Development (3).
Developmental characteristics of children with emphasis from conception to eight years. Includes observation techniques. EDEC 232 and FCL 232 are cross-listed courses; students may not receive credit for both. EDEC 292. Assisting in the Child-centered Classrooms
(5). Students work with children in ECE classrooms, learning and practicing the fundamentals of guidance, curriculum implementation, and maintaining the physical environment. Students participate in a two-hour seminar each week. May be taken twice for credit with the permission of the division
head. Grade will be either S or U.

EDEC 296. Individual Study
(1-6).
EDEC 298. Special Topics (16).

EDEC 299. Seminar (1-5).
EDEC 306. Professional
Growth and Expectations (2).
This initial course in the Early Childhood Education sequence is a survey of the profession.
Students begin a professional growth and development plan, develop philosophical
underpinnings, and systematically organizing resources that will be used throughout the program. Corequisite: EDEC 307. Upon successful completion of this course, the student will be able to:
Identify personal and professional expectations as an educator (including standards, mandated reporting, code of conduct, service learning). [knowledge]
Interpret their role and responsibility as a mandated reporter of potential child abuse and neglect.
[comprehension]
Actively participate in personal development as an educational
leader. [application]
Examine personal and
professional attributes.
[analysis]
Use personal reflections to
prioritize target outcomes for professional development.
[synthesis]
Justify their professional
development target outcomes
with their ECE advisor.
[evaluation]
EDEC 307. Equity, Culture, and Anti-bias in ECE (3).
Principles of equity, cultural relevancy, and anti-bias approaches appropriate for programs serving children from birth through eight years of age. Co-requisite: EDEC 306.

Upon successful completion of this course, the student will be able to:
Understand different "isms" (ex: racism, sexism, ageism)
and exceptionalities.
[knowledge]
Explain personal and social identity development, team construct, and the role of ECE
programs. [comprehension]
Plan responsiveness to diversity. [application] Review learning materials to identify bias. [analysis] Create learning opportunities that are equitable, culturally responsive, and anti-based. [analysis]
Determine and express personal beliefs. [evaluation]
EDEC 312. Childhood
Learning (3). Childhood
Learning is an exploration of the specific content knowledge and processes, such as reading, math, science, language arts, etc. that are found in preschool through third grade developmentally appropriate programs. Prerequisites: EDEC 306 and EDEC 307. Co-
requisites: EDEC 313 and
EDEC 314.
Upon successful completion of this course, the student will be able to:
Locate scope and sequence by content area. [knowledge]
Distinguish developmentally appropriate practice by domain area. [comprehension]
Apply curricular standards and constructivist principles to learning activity selection. [application]
Construct content area-based activities for resource me. [analysis]
Design content-integrated learning activities. [synthesis] Judge curricular materials for use with children. [evaluation]
EDEC 313. Materials and Manipulatives in ECE (3). Strategies are investigated for developing games and learning opportunities through the use of classic ECE manipulatives. The potential for fostering teaching knowledge and skills is emphasized. Prerequisites: EDEC 306 and EDEC 307. Corequisites: EDEC 312 and EDEC 314.

Upon successful completion of this course, the student will be able to:
Relate information about
founding ECE theorists'.
(knowledge)
Create a resource file of developmentally appropriate activities. (comprehension)
Utilize materials and manipulatives to promote learning. (application)
Construct a developmental list of materials and manipulatives. (analysis)
Propose developmentally appropriate materials to support childhood learning. (synthesis)
Assess materials and manipulatives used to promote childhood learning.
(evaluation)
EDEC 314. Learning
through Play (3). Learning through play is a dynamic look at how to introduce and solidify skills through play based emergence curriculum.
The use of play to
developmentally explore in depth reading, math, emotions, etc. Prerequisites: EDEC 306 and EDEC 307. Co-requisite: EDEC 312 and EDEC 313.
Upon successful completion of this course, the student will be able to:
Define play and its
developmental levels (solitary, parallel, associative, and cooperative). [knowledge] Interpret types of play (constructive, functional, games with rules, investigative, and dramatic).
[comprehension]
Conduct assessment of early childhood standards using play-based observational data. [application]
Design play-based learning environment. [analysis] Classify children's play based on level and type, using observational data (Children's Museum). [synthesis] Justify learning through play in creating an educational philosophy, including: How children learn, what children learn, the physical
environment, the teacher's role, and the parent's role.
[evaluation]
EDEC 321. Curriculum I (3).
Historical influences and
knowledge of child
development/psychological
theories/contemporary models
will form the basis for
curriculum development,
implementation, and
interactions with children from
birth to preschool age.
Prerequisites: EDEC 312 and
EDEC 313, and EDEC 314.
Co-requisite: EDEC 412.
Upon successful completion of this course, the student will be able to:
Locate child care licensing
requirements. [knowledge]
Identify developmental
milestones B- 3 .
[comprehension]
Construct a domain-based
family lesson plan for a B-3
child (independent or 1-1
emphasis). [ application]
Compare home and child care
settings for children B-3).
[analysis]
Design a fictitious B-3 child.
[synthesis]
Justify child design.
[evaluation]
EDEC 322. Parent
Involvement (3). Parent-child
and parent-school interactions as educational and developmental aids. Emphasis upon the school's use of the home and community for educational purposes. Prerequisites: EDEC 321. Corequisites: EDEC 411 and EDEC 412.
Upon successful completion of this course, the student will be able to:
Describe facets of parent involvement, including but not limited to: communication, parenting, learning at home, volunteering, decision making and community collaboration. [knowledge]
Interpret family games by
skills and standards.
[comprehension]
Collaborate with the
community through
volunteerism. [application]

Examine perspectives of parent involvement (using Epstein's Framework) by interviewing one or more of the following: parent, in-service teacher, child. [analysis]
Align early childhood standards with learning activities. [synthesis]
Determine a personal
philosophy of parent
involvement. [evaluation]
EDEC 396. Individual Study (1-6).
EDEC 397. Honors (1-12).
Prerequisite: admission to department honors program.
EDEC 398. Special Topics (16).

EDEC 399. Seminar (1-5).
May be repeated if subject is different.
EDEC 401. Comparative Education Models in Early Childhood (Put on reserve
9/16/15.) (1). Students in this class will do an in-depth study of 2 curriculum models (i.e. Montessori, Waldorf, Froebel, etc.) and then visit programs that exemplify the two models. May be repeated up to 3 credits. Put on reserve 9/16/15. Will go inactive $8 / 24 / 18$. Prerequisite: admission to the early childhood education major or minor.
Upon successful completion of this course, the student will be able to:
Conduct in-depth research into two philosophical models of education that focus on birth through primary ages or some subset of this range.
Compare the theoretical model from actual classroom practices.
Identify the philosophical underpinnings of the two theoretical models.
EDEC 411. Curriculum II
(3). Historical influences and knowledge of child development, psychological theories, and contemporary models as bases for curriculum development and implementation in prekindergarten settings. Prerequisites: EDEC 321. Co-
requisites: EDEC 322 and EDEC 412.
Upon successful completion of this course, the student will be able to:
Locate performance standards
(Head Start \&/or ECEAP)
[knowledge)
Distinguish between
developmental milestones B-3
and 3-S. [comprehension]
Construct a center-based lesson
plan for children 3-5 (small
group emphasis). [application]
Compare and contrast child
care and preschool. [analysis]
Design center-based learning environment for children 3-5. [synthesis]
Evaluate learning environment design. [evaluation]
EDEC 412. Responsible Childhood Assessment (3).
Exploration and application of childhood assessment, birthelementary with emphasis on responsibility, ethics, purpose, decision-making, and alignment; designed to impact individual learning outcomes, professional implementation, and program improvement. Prerequisites: EDEC 321. Corequisites: EDEC 322 and EDEC 411.
Upon successful completion of this course, the student will be able to:
Demonstrates methods of working with children to selfassessment and set goals in developmentally appropriate ways. 1.2
Demonstrates strategies for partnering effectively with all stakeholders to inform and enhance support for children's learning through listening, observing, and data collection. 2.1

Identify and variety of assessment methods (formal and informal) used from birth through elementary school, designed to provide information about children, teaching, and programs. Program Standard. Demonstrates understanding of how to evaluate and use standardized assessment tools,
and integrate standardized data with other assessment data. 2.5 Distinguish between assessment methods, targets, and the intended purposes. Program Standard. Implement assessments within specified categories, as well as interpret and communicate the resulting data. Program Standard.
Demonstrates understanding of how to use developmentally and culturally appropriate practices to observe, record, and assess young children's development and learning. 3.5 Considers theory, research, assessment information, and perspectives of others to make informed decisions about instructional strategies and program content. 5.1 Demonstrates understanding of the role of the teacher in assessing and referring children and families to appropriate community health or social service agencies when necessary. 5.4
Demonstrates understanding of informal and formal assessment strategies for the purpose of setting goals and planning appropriate programs, environments, and interactions, and adapting for individual differences. 5.5
Select appropriate assessment tools based on intended purpose, reliability, and validity. Program Standard. Propose and/or construct assessments tools which are aligned with the intended purpose. Program Standard.
EDEC 422. Classroom Management in an ECE Classroom (3). This course provides students the opportunity to explore, apply, synthesize and evaluate techniques and strategies for creating positive classroom climates through organization and management techniques. Prerequisites: EDEC 411 and EDEC 412. Co-requisite: EDEC 421.
Upon successful completion of this course, the student will be able to:

Establish positive, supportive relationships with children. 9.1 Establishes and maintains a physically and psychologically safe and healthy learning environment. 9.1.1 Create a learning environment (experiences and schedules) that attend to the physical needs of young children for movement, rest, play, fine and gross motor development, health, and fitness. 9.1.2 Incorporates strategies from multiple disciplines (for example, health social services) into the design of intervention strategies and integrates goals from IEPs and IFSPs into daily activities and routines. 9.1.3
Demonstrates understanding of how to develop and use assessment (authentic, performance-based, etc.) of learning to inform and guide instruction and to communicate with children and families. 9.1.4

Uses appropriate and effective classroom management practices, individual, group guidance, schedules, routines, transitions and problemsolving techniques to encourage positive social interaction among children, promote positive strategies of conflict resolution and techniques to develop personal self-control, self- motivation, and self-esteem. 9.1.7
Uses appropriate and effective classroom management practices, individual, group guidance, schedules, routines, transitions and problemsolving techniques to encourage positive social interaction among children, promote positive strategies of conflict resolution and techniques to develop personal self-control, self- motivation, and self-esteem. Program Standard.
Identify, address, and design learning experiences that address the behavioral learning and social needs of students within a classroom setting. Program Standard.

EDEC 424. Curriculum III
(3). Historical influences and knowledge of child development/ psychological theories/contemporary models will form the basis for curriculum development, implementation, and interactions with children from kindergarten through primary grades. Prerequisites: EDEC
322 and EDEC 411. Corequisite: EDEC 422.
Upon successful completion of this course, the student will be able to:
Locate common core standards [knowledge]
Outline developmental milestones B-8.
[comprehension]
Construct content-based lesson plans (consecutive) for children 5-8 (whole group emphasis). [application] Investigate elementary school campus, resources, and curricular materials. [analysis] Design a class schedule for grades K, 1, 2, or 3 . [synthesis] Assess lesson plan implementation. [evaluation]
EDEC 432. Theories in Child Development (3). Assists the student in formulating his or her own general assumptions about the nature of child development through study of various theoretical viewpoints and current issues. EDEC 432 and FS 432 are cross-listed courses, students may not receive credit for both. Prerequisites: EDEC 422 and EDEC 424 or permission. Corequisite: EDEC 492 and EDEC 493 or permission. Upon successful completion of this course, the student will be able to:
Gather observational data to be applied to theories.
[knowledge]
Interpret theoretical information through research of various early childhood theories. [comprehension] Construct a theories guide. [application] Identify theories within case studies. [analysis]

Formulate and utilize lesson plan(s) based on the case study analysis. [synthesis]
Determine lesson effectiveness and appropriateness of selected theory or theories. [evaluation]

## EDEC 447. Curriculum

Exploration (3). Guided exploration of curriculum or guidance needs as identified by student self-evaluation. Consistency with the student's personal philosophy and child development will be emphasized. Prerequisites: EDEC 331 or FCSF 331. Upon successful completion of this course, the student will be able to:
Write course proposal based on personal interest, growth plan information, department recommendation, and available opportunity and/or resources. [knowledge]
Interpret research of curricular model/design. [comprehension] Construct curriculum for specified learning site or opportunity. [application] Investigate special considerations needed for students or the environment. and modify curriculum plan. [analysis]
Modify curriculum plan according to investigative findings. [synthesis] Justify curricular changes based on developmental appropriateness and best practice in early childhood education. [evaluation]
EDEC 465. Directing ECE
Programs (Put on reserve 9/16/17) (3). Budgeting, governmental requirements, staffing, nutritional and health care, parental involvement, community and agency liaison, and the integration of developmental/educational curriculum. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.)

## EDEC 490. Cooperative

## Education (1-12). An

individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement
involves a student learning plan, cooperating employer supervision, and faculty coordination. Prior approval. May be repeated for credit. Grade will either be S or U .
EDEC 492. Senior Seminar (3). This capstone seminar integrates the hands-on experiences from the EDEC 493 practicum with the ECE major course content. Students will actively problem solve, develop professional resources, compile a portfolio and career growth plan. May be repeated with or without EDEC 493 practicum. Department consent required. May be repeated up to 6 credits. Corequisite: EDEC 493 and EDEC 432 must be taken concurrently. Upon successful completion of this course, the student will be able to:
Reflect on hands-on experiences in ECE classrooms.
Evaluate and maintain an ongoing personalized professional growth plan. Compile a professional portfolio that is a representation of their skills and talents. Fulfill the requirements of an ECE professional. Problem solve using best practices and early childhood theories.
Conduct self-reflection of their skills and classroom readiness.
EDEC 493. Professional Educators Field Experience
(3-18). Students will work in ECE settings 20 hours per credit. Classroom interactions will include group instruction, individual tutoring, assessing students' learning, classroom management, classroom maintenance, as well as other duties determined by the site supervisors. May be repeated a second time without the EDEC 492 senior seminar.
Department consent required. May be repeated up to 30 credits. Grade will either be S or U. Prerequisites: EDEC 422, and EDEC 424, and current WSP/FBI fingerprint
clearance. Corequisite: EDEC 432 and EDEC 492 required for the initial experience. Upon successful completion of this course, the student will be able to:
Facilitate developmentally appropriate learning in an ECE setting.
Establish and maintain a developmentally appropriate environment.
Observe, assess, and document appropriately in a given ECE environment.
Build family and community relationships.
Conduct themselves in a professional manner. Conduct a focused curriculum materials review of the material being used at the placement school site. Provide constructive feedback to students in the classroom where the internship is being completed.

## EDEC 494. Professional Educators Advanced Field

Experience (3-10). A course designed to meet special needs as determined by the student, his/her advisor and the director. Grade will be S or U . Prerequisite: EDEC 493.
Upon successful completion of this course, the student will be able to:
Design and modify published curriculum for a specific purpose (grade, student, etc.). Create a learning segment for a specific purpose under the direction of the mentor teacher and supervisor.
Design assessment tasks based on the specified learner outcomes for the learning segment designed from the modified classroom curriculum.
Conduct a focused curriculum materials review of the material being used at the placement school site. Provide constructive feedback to students in the classroom where the internship is being completed.
Do a presentation on a published curriculum that
he/she reviewed as part of the class \& school project.
EDEC 496. Individual Study (1-6).
EDEC 497. Honors (1-12).
Prerequisite: admission to department honors program.
EDEC 498. Special Topics (16).

EDEC 499. Seminar (1-5). EDEL 120. Educating
America (4). The course takes a chronological look at how the institution of education has influenced and been influenced by the development of the U.S. socially, economically, politically, and culturally. Upon successful completion of this course, the student will be able to:
PCE 1. Identify the influence of the various institutions, cultures, and traditions of the United States.
PCE2. Critically analyze ways in which the past affects the present and future. PCE3. Articulate the requirements of informed citizenship based on analysis of social, economic and/or political processes issues and events.
PCE4. Apply critical thinking and ethical reasoning to individual and collective decision making.
Differentiate cultural educational institutional approaches as a factor in identity.
EDEL 130. Relationship
Development Across the
Lifespan (4). This course focuses on human interaction through the development of relationships across the lifespan with particular emphasis on relationship formation and stages of parenting.
Upon successful completion of this course, the student will be able to:
SWBAT identify how intellectual, physical, emotional, social, and spiritual development of humans impacts relationships across the life span.

SWBAT analyze various factors and significant issues, both natural and human made, that impact relationships throughout the life span. SWBAT utilize appropriate methodology to gather and interpret qualitative data on a significant issue impacting human relationships. SWBAT utilize appropriate methodology to gather and interpret qualitative data on a significant issue impacting human relationships.

## EDEL 296. Individual Study

 (1-6).EDEL 298. Special Topics (1$6)$.
EDEL 299. Seminar (1-5).
EDEL 320. Integrated Arts in the Elementary School (5).
This course contains content and methodology for elementary majors preparing to teach all of the arts (dance, drama/theatre arts, music and visual arts) with connections to pedagogy, artistic expression, and the other content area of elementary education.
Prerequisites: conditional admission to the Teacher Certification Program and current WSP/FBI clearance. Upon successful completion of this course, the student will be able to:
Sets learning targets that address the EALR's and the state learning goals for the arts. Demonstrates knowledge that dance, music, theatre and visual arts shape and reflect culture and history. Applies arts knowledge and skills utilizing the key elements, principles of design and composition, and the foundations, concepts and techniques used in dance, music, theatre, and visual arts, such as rhythm, beat, expression, action, character, energy, color, balance, harmony, etc.
Demonstrates a recognition of a broad variety of visual and performing arts styles that differ across various artists, cultures, and times.

Applies and demonstrates the thinking skills using the artistic processes of creating, performing, and responding.
Designs assessment strategies
to show understanding that dance, music, theatre, and visual arts are used to communicate ideas and feelings for specific purposes. Designs performances or artistic works that show an understanding that aesthetic diversity is reflected in dance, music, theatre, and visual arts. Designs performances or artistic works that show understanding that the arts (dance, music, theatre, and visual arts) make connections within and across the arts, to other disciplines, life, cultures and work.
EDEL 323. Teaching Elementary School
Mathematics (4). Methods and materials for helping children learn mathematics with emphasis on the use of manipulatives, problem solving, cooperative learning, and communication. Prerequisites: MATH 164, MATH 250, and full admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance . Upon successful completion of this course, the student/teacher candidate will be able to: Design and execute a wide range of instructional plans and strategies that support student learning within mathematics \& integrated across other academic content areas. Operationalize the Common Core State Standards in Mathematics K-8. Use the learning progressions as a diagnostic tool in assessing learning and planning lessons.
Design and implement a wide range of assessment strategies and support student learning within and across academic content areas.
Design instructional lessons using the constructivist model of problem solving (investigations).

Operationalize the 5 elements of mathematical instruction:
Task Development, Tool Usage as Learning Support, Equity of Accessibility, Social Culture of the Learning Environment, \& Teacher's Role in
Decipher and explain ethomathematical methods of problem solving
Operationalize the grading, assessment, feedback process with meaning \& application. Utilize manipulatives purposefully in developing effective instructional strategies for K-8 math content.
EDEL 396. Individual Study (1-6).
EDEL 397. Honors (1-12). Prerequisite: admission to department honors program.
EDEL 398. Special Topics (1$6)$.
EDEL 399. Seminar (1-5).
May be repeated if subject is different.
EDEL 401.
Foundations/Philosophy for Teaching Highly Capable
Learners (2). An exploration of philosophies, concepts, and historical realities that have implications for supporting the education and development of highly capable learners. Upon successful completion of this course, the student will be able to:
Explain the historical foundations of gifted and talented education including points of view and contributions of individuals of diverse backgrounds. Compare philosophies, theories, program models, and research that support gifted and talented education.
Compare definitions of giftedness and identification of individuals with gifts and talents, including those with diverse backgrounds and/or exceptional learning needs. Identify and utilize organizations and publications relevant to the field of gifted and talented education

Collaborate with stake holders outside of the school setting who serve gifted and talented learners and their families. Explain local, state, and federal laws and policies related to gifted and talented education. Explain FERPA as it relates to gifted and talented learners. Evaluate issues and trends interconnecting general, special, and gifted and talented education.
EDEL 405. Societal and Cultural Perceptions of Giftedness (3). Exploration of the cultural and societal influences that shape perceptions of what it means to be "gifted" and the implications for the appropriate education of highly capable learners. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate.
Upon successful completion of this course, the student will be able to:
Compare definitions of giftedness and identification of individuals with gifts and talents, including those with diverse backgrounds and/or exceptional learning needs. Compare the cognitive and affective characteristics of gifted and talented learners, including those from diverse backgrounds, in intellectual, academic, creative, leadership, and artistic domains. Explain the similarities and differences among gifted and talented learners as well as compared to the general population.
Analyze the academic and affective characteristics and learning needs of gifted and talented learners, including the underachieving and twiceexceptional student. Evaluate the influences of different beliefs, traditions, and values across and within diverse groups on relationships among gifted and talented learners, their families, schools, and communities.

Advocate for the benefit of gifted and talented learners and their families.
EDEL 410. Identification of Highly Capable Learners (2). A review of the criteria, tools, and data interpretation for identifying and assessing highly capable learners. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate. Upon successful completion of this course, the student will be able to:
Identify and use non-biased and equitable approaches for identifying gifted and talented learners.
Identify and use technically adequate qualitative and quantitative assessments for identifying and placing gifted and talented learners.
Explain uses, limitations, and interpretation of multiple assessments in different domains for identifying individuals with exceptional learning needs.
Design and implement processes and procedures for the identification of gifted and talented learners.

## EDEL 415. Learning

 Environments for HighlyCapable Learners (3). An exploration of the unique criteria for establishing appropriate learning environment for highly capable learners across a broad spectrum of capabilities and content areas. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate.
Upon successful completion of this course, the student will be able to:
Design learning opportunities for gifted and talented learners that promote self awareness, positive peer relationships, intercultural experiences, self efficacy, lifelong learning, and leadership.
Create safe learning environments for gifted and talented learners that encourage active participation and student voice in individual
and group activities to enhance independence, interdependence, and positive peer relationships.
Create learning environments and intercultural experiences that allow gifted and talented learners to appreciate their own and others' language and cultural heritage.
Develop social interaction and coping skills in gifted and talented learners to address personal and social issues, including discrimination and stereotyping.
EDEL 420. Social Sciences in the Elementary School (4).
Methods, techniques, content, and materials for the various grade levels with an emphasis on history, geography, economics, civics, political science, and social studies skills, through the use of inquiry, primary source documents, and integration of content within the elementary school curriculum.
Prerequisite: full admission to the Teacher Certification Program and senior level status or by permission.
Upon successful completion of this course, the student will be able to:
Identify the steps involved in historical
investigation/reasoning. Write a thesis based on several data sets that they have examined in an inquiry lesson. Conduct effective Socratic discussion.
Construct effective arguments. Explain economic concepts (i.e., supply, demand, scarcity, money, etc.).
Create a mini-unit of
instruction.

## EDEL 423. Integrated

 Methods for the Elementary School (3). In this capstone course, elementary teacher candidates will explore interdisciplinary instruction and design standards-based unit plans that incorporate best teaching practices for specific teaching assignments.Prerequisites: EDEL 323 and EDEL 420 and EDLT 409 and

EDLT 422 and SCED 322 and complete four of the following courses: EDEL 320 or EDLT 321 or HED 446, or PE 334 and full admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Set learning targets that address the state learning goals. CTL 1.1-1.2 WA 1.1-
1.6, 4.1-4.12

Demonstrate knowledge of the characteristics of students and communities. WA 2.1-1.7
Plan and establishes effective interactions with families to support student learning and well-being. WA3.9
Design assessment strategies
that measure student learning.
CTL 1.3, WA 5.1-5.7
Design Instruction based on
research and principles of
effective practices. CTL 1.2,
1.3, WA 4.1-4.12

Align instruction with the instructional plan and communicates accurate content knowledge. CTL $1.1,1.2,1.3$, 1.5 WA3.1-3.9

K-8 students participate in a learning community that supports student learning and wellbeing. CTL 1.5, WA 3.13.9
$\mathrm{K}-8$ students engage in learning activities that are based on research and principles of effective practices. CTL 1.2, 1.3, 1.5, WA 4.1-4.12
Students experience effective classroom management and discipline. CTL 1.5, WA 3.13.9

And their k-8 students engage in activities that assess student learning. CTL 1.3, 1.5, WA 5.1-5.7

EDEL 425. Curriculum Development/ModificationHighly Capable Learners (3). Practical and specific strategies for creating curriculum tasks and adapting given curricular resource materials to support highly capable learners; their growth, development, and personal goals. Prerequisite: junior standing. Acceptance
into TPP or have a valid WA teaching certificate.
Upon successful completion of this course, the student will be able to:
Design differentiated learning plans/curriculum for gifted and talented learners.
Select curriculum resources, strategies, and product options that respond to cultural, linguistic, and intellectual differences among gifted and talented learners.
Develop scope and sequence plans for gifted and talented learners.
Select and adapt a variety of differentiated curricula that incorporate advanced, conceptually challenging, indepth, distinctive and complex content.
Develop differentiated curriculum-based assessments for use in instructional planning and delivery for gifted and talented learners. Align differentiated curriculum with instructional plans to meet local, state, and national curricular standards appropriate to the assessed academic strengths of the gifted and talented learner. Collaborate with gifted and talented learners, their families, general and special educators, and other school staff to articulate a comprehensive education program.
EDEL 430. Individual Development of Highly Capable Learners (3). Exploration of the unique development of highly capable learners and how teachers, families, and the learners collaborate to support the learner in and our of school settings. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate.
Upon successful completion of this course, the student will be able to:
Analyze the role of families and communities in supporting the development of gifted and talented learners.

Analyze the unique academic, social, and emotional developmental milestones of gifted and talented learners from early childhood through adolescence. Analyze the idiosyncratic learning patterns of gifted and talented learners, including those from diverse backgrounds.
Evaluate the societal, cultural, and economic factors, including anti-intellectualism and equity vs. excellence, that may enhance or inhibit the developments of gifts and talents.
Compare ways in which groups are stereotyped and experience historical and current discrimination and discuss implications for gifted and talented education. Evaluate the effects of culture and environment on the development of gifted and talented learners.
Evaluate the influences of diversity factors on gifted and talented learners.
EDEL 435. Introduction to

## Project-Based Learning

(PBL) (2). This course explores project-based learning (PBL) as defined by bestpractices and established criteria from recognized longterm PBL advocates. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate. Upon successful completion of this course, the student will be able to:
Apply the essential components of a quality project- based learning (PBL) Modify and/or create a project for highly capable learners Justify a project's creation/modification according to expectations for gold-standard PBL Compare resources for supporting understanding and implementation of PBL
EDEL 450. Planning and
Instruction I: Highly
Capable Learners (3).
Exploration and application of a variety of methodologies and
planning tools to support highly capable learners for a variety of capabilities. Takes place in field-based clinical setting. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate.
Upon successful completion of this course, the student will be able to:
Utilize community and school resources to support differentiated instruction. Use curricular, instructional and management strategies effective for gifted and talented learners including the underachieving and twiceexceptional student. Adjust instruction for gifted and talented learners based on formative and summative assessment. Pace delivery of curriculum and instruction consistent with needs of gifted and talented learners.
Apply pedagogical content knowledge to instructing gifted and talented learners. Apply higher-level, critical, and creative thinking and metacognitive and problem solving models to content areas to meet the needs of gifted and talented learners
Provide opportunities for gifted and talented learners to explore, develop, or research their areas of interest or talent.
EDEL 455. Planning and Instruction II: Highly Capable Learners (3). Continued and deeper exploration and direct application of a variety of methodologies and planning tools to support highly capable learners for a variety of uppergrade levels capabilities and content areas. Takes place in field-based clinical setting. Prerequisite: junior standing. Acceptance into TPP or have a valid WA teaching certificate. Upon successful completion of this course, the student will be able to:
Engage gifted and talented
learners from all backgrounds
in challenging, multicultural curricula.
Use advanced oral and written communication tools, including assistive technologies, to meet the needs of individuals with exceptional learning needs.
Access resources and develop strategies to enhance communication skills for gifted and talented learners, including those with advanced communication skills and/or English language
Use alternative assessment and technologies to evaluate academic growth of gifted and talented learners.
Integrate perspectives of diverse groups into planning instruction for gifted and talented learners.
Integrate academic and career guidance experiences into the learning plan for gifted and talented learners.
Communicate and consult with school personnel about the characteristics and needs of gifted and talented learners. Collaborate with families, community members, and professionals in assessment and instruction of gifted and talented learners.
EDEL 468. Teaching
Problem-solving Techniques for Upper Elementary and Middle School Mathematics
(3). Methods and materials for helping the upper elementary/middle school (5th8th grade) students learn mathematics with emphasis on appropriate manipulatives, teaming, problem solving, and communication strategies. Department reactivated 9/16/15. Prerequisites: EDEL 323 and MATH 164 and MATH 250 and full admission to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Demonstrate conceptual differences between instrumental and relational mathematical knowledge.

Construct CCSS-M aligned learning tasks that focus on the development of problem solving strategies.
Construct integrated mathematical learning segments that draw upon the resources \& content inherent in the subject matter from across the middle level curriculum. Demonstrate knowledge of the currently available curriculum materials (5th -8th grades) including technology and manipulatives for learning mathematics.
Analyze student produced work samples for instructionally relevant data.
EDEL 476. Integrated
Humanities at the Middle-
level Grades (5). This course
focuses on integrated instructional strategies and methods for working with middle-level (grades 4-9) students in the humanities (English, reading, social studies, history, civics, economics, and geography) content areas. EDEL 476 and ENG 476 are cross-listed; students may not receive credit for both. Prerequisites: ENG 320 and admission to the teacher education or hold a valid Washington teaching certificate.
Upon successful completion of this course, the student will be able to:
Utilize Reading and Language
Arts theories and research
related to communication through reading, writing, speaking, listening, viewing and thinking.
Align reading skills through the learning progressions to state and national standards. Curriculum development of student integration projects that Incorporates literature, language arts, and social studies (history, geology, economics, civics, and social studies).
Integrate literacy experiences in all learning environments. Develop learning progressions that utilizes meta-cognition reading strategies.

Utilize current standards and the essential components of reading fluency, phonics, vocabulary and comprehension as they apply to the humanities for the young adolescent.
EDEL 477. Middle School Students and Their Environment (4). An in-depth exploration of the developmental learning needs of 5th-8th grade students and the physical, social, and management systems utilized by middle-level education programs. The major focus of this course is to create developmentally appropriate classroom practices that merge educational developmental needs. Prerequisites: full admission to the Teacher Certification Program and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Middle level Teachers will know and be able to function within the middle school philosophy in terms of curriculum, management, development, and pedagogy.
This includes the use of interdisciplinary teams, flexible grouping and scheduling, teacher- based guidance programs, and activity-based programs. (Kl
.2), (S1.1), (S1.2), (S2.2),
(S3.2), (K4.1), (K4.2), (K.4.3),
(K4.4), (S4.1),
(KS.6)
Be sensitive and be able to effectively address developmental needs of physical, intellectual and cognitive, moral, and psychosocial in the education of middle school students. (K2. 1), (K2.2), (S2. 1), (S2.2), (K5.6)
Create, modify, and adapt the instruction, environment, and cognitive experiences to meet the individual and cultural needs of all students. (S2.3), (K3.1), (S3.1), (K.5.1), (K5.6), (S5.2), (K7.3)
Demonstrate knowledge of the current national, state and local
best practices in curriculum and classroom practices by citing and integrating them into daily instructional and management practices. Students will be designing integrated lessons and the environment that supports integration. (K5.3), (S5.4), (K5.4), (S5.4), Middle level teacher candidates will be prepared to create a caring, stimulating, inclusive and safe community for learning where students take intellectual risks and work independently as well as
collaboratively. (S3.3), (KS.6), (S5.6), (S5.7),
Middle level teacher candidates will be able to create and employ opportunities to collaborate with colleagues, student families, resource persons, and community groups in achieving quality educational experiences for all students. (S6.2,), (K6.1), (K7.3) Design lessons that represent a departmentalized schedule approach with respect to both horizontal and vertical teaming. (K4.1), (K4.3)
EDEL 478. Developmentally Responsive Curriculum in the Middle Grades (3). An indepth exploration of researchbased middle school curriculum that meets the development needs of young adolescents. This course focuses on middle school curriculum and its process by which it is designed, integrated, and evaluated. Prerequisite: full admission to the Teacher Certification Program and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student/teacher candidate will be able to: Design and/or modify curriculum to be relevant, challenging, integrative, and exploratory for all students within a given classroom. Design and/or modify curriculum to be representative of the goals and outcomes of
the Common Core State Standards.
Demonstrate an understanding of their roles in the total school curriculum process that involves horizontal and vertical teaming, curriculum mapping and alignment, selection of materials, etc. for young adolescents.
Demonstrate an understanding of how to integrate instructional technology into the curriculum and operationalize it within the classroom.
Utilize UbD lesson planning strategy.
Demonstrate an understanding of how to provide effective student feedback that facilitates continued learning.
Demonstrate an understanding of how to effectively develop and deliver instructional lessons within a learning environment.
Demonstrate their knowledge of the importance of Professionalism. Demonstrate their knowledge of the importance of creating a caring, stimulating, inclusive and safe community where middle Level learners can take intellectual risks and work independently as well as collaborative.
EDEL 482. Instruction and Assessment for the Middlelevel: Grades Five through
Eight (3). This course provides the future middle-level educator with comprehensive skills in instructional methods, curriculum alignment, lesson development, and assessment methodology within the middle school environment.
Department reactivated
9/16/15. Prerequisites:
PSY 314, EFC 310, EDCS 311, and admission to the Teacher Certification Program. Upon successful completion of this course, the student/teacher candidate will be able to: Create instruction and assessments that reflect the integral relationship between planning, instructing,
assessing, data collection, feedback, and evaluation. Create examples of multiple assessment methodologies, including diagnostic, formative, and summative. Define models of delivery of instruction, give examples, and determine when each is appropriate.
Explain how data is collected and used to inform curriculum; create/provide examples.
Adapt existing curriculum resources to reflect various instructional methodologies and strategies
Explain how assessment and feedback support student learning.
EDEL 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will be either S or U. Prerequisites: prior approval and conditional or full admission to the Teacher Certification Program.
EDEL 491. Workshop (1-6).
May be repeated for credit.
EDEL 493. Professional
Educators Field Experience
(1-15). Experience working in educational settings. Application must be submitted before registration - see department of TEACH office. Students may accumulate no more than 15 hours of practicum credit. Formerly EDEL 492, students may not receive credit for both. Grade will either be S or U . Prerequisite: full admission to the Teacher Certification Program and current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to:
Facilitate developmentally appropriate learning in a K-8 setting.

Establish and maintain a developmentally appropriate, content-focused learning environment.
Observe, assess, and document individual student and groups of students' growths within a given K-8 environment. Operationalize best practices readings, research, and trainings.
Conduct themselves in a professional manner. Conduct a focused curriculum materials review of the material being used at the placement school site. Provide constructive feedback to students in the classroom where the internship is being completed.
EDEL 496. Individual Study (1-6).
EDEL 497. Honors (1-12).
Prerequisite: admission to department honors program.
EDEL 498. Special Topics (16).

EDEL 499. Seminar (1-5). EDF 296. Individual Study (1-6).
EDF 298. Special Topics (16).

EDF 299. Seminar (1-5). May
be repeated if subject is
different.
EDF 396. Individual Study
(1-6).
EDF 397. Honors (1-12).
Prerequisite: admission to
department honors program.
EDF 398. Special Topics (16).

EDF 399. Seminar (1-5). May be repeated if subject is different.
EDF 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Prior approval. May be repeated for credit. Grade will either be S or U .
EDF 496. Individual Study (1-6).

EDF 497. Honors (1-12).
Prerequisite: admission to department honors program.
EDF 498. Special Topics (16).

EDF 499. Seminar (1-5). May
be repeated if subject is different.

## EDLM 298. Special Topics

(1-6). May be repeated if subject is different.
EDLM 299. Seminar (1-5).
May be repeated if subject is different.

## EDLM 396. Individual Study

(1-6). May be repeated if subject is different.
EDLM 397. Honors (1-12),
Prerequisite: admission to department honors program.
EDLM 398. Special Topics
(1-6). May be repeated if subject is different.
EDLM 399. Seminar (1-5).
May be repeated if subject is different.
EDLM 410. Introduction to Library Media Issues (3). This course will provide an introduction to relevant issues related to library media studies; including diversity, legal issues, curriculum development, librarian roles, connectivity issues, technology and instruction. EDLM 410 and EDLM 510 are layered courses; student may not recieve credit for both. Upon successful completion of this course, the student will be able to:
Create an advisory board plan as well as a selection policy which addresses the issue of diversity within the collection and as it pertains to access. Produce a paper that examines and critiques three school Bring Your Own Device models with attention to equal access and school policy issues.
Develop multi-media policy
for appropriate age groups addressing ID theft, digital footprint, online relationships, and legal (fair) use of others' materials.
Draft a policy for staff outlining the usage parameters of internet access and school
filtering (CIPA) obligations, including bout not limited to unblocking sites, BYOD, and other acceptable use issues. Compose a personal philosophy/disposition paper addressing intellectual freedom and anticipated role at assigned grade level.
Develop a cope and sequence for a school library curriculum including literature, information, and technology aspects.
Demonstrate comprehension of multicultural issues that enhance cultural sensitivity and awareness.
EDLM 414. Technology
Tools for the Library (3).
Provides an introduction to design and production of various instructional materials from manual to more complex computer techniques.
Technology tools for the library, and storage media will be explored. Projects will be developed to explore the various technologies. EDLM 414 and EDLM 514 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to: Define current trends in library technologies.
Recognize tools for technology and explain effective strategies for purchasing technology. Recognize and discuss Web 2.0 and other social networking technologies.
Use office software applications for library purposes.
Incorporate media and technology into lesson plans.
EDLM 416. Application of
Technology Resources (3).
This course provides an
introduction to technology
tools, processes, and web
applications that support
information literacy. Web 2.0
and other collaboration tools will be explored. Projects will be developed to explore the application of these technologies. EDLM 416 and EDLM 516 are layered
courses, students may not receive credit for both
Upon successful completion of this course, the student will be able to:
Explain the role of computer networks and library systems software in libraries
Demonstrate and understanding of databases and electronic resources.
Evaluate the need for adaptive/ assistive technology.
Recognize technology issues and the need to plan for future technology needs in a library. Identify and describe emerging technologies.
Use social bookmarking and graphic organizers to help with research.
Explain the uses of blogs, wikis and RSS feeds.
Demonstrate and
understanding of Google Earth
Describe information processing models and how to promote them.
EDLM 426. Instructional
Methods in the Library (3).
Apply instructional strategies in teaching information literacy skills and motivating students to read. Explore collaborative learning techniques which will integrate information literacy skills into the standards based curriculum. EDLM 426 and EDLM 526 are layered courses, students may not receive credit for both Upon successful completion of this course, the student will be able to:
Describe national roles for Library Media specialists and be familiar with national and state standards for library information literacy and technology.
Be familiar with benchmarks and grade level indicators. Name various literature connections that can be used to enhance lesson plans. Describe the importance of a mission statement and goals that support a diverse population.
EDLM 436. Survey of Children's and Young Adult
Literature (3). Considers the
field of children's and young adult literature; literary genres, major literary awards, leading representative authors, historical and recent trends. Includes topics of cultural diversity and reading promotion. EDLM 436 and EDLM 536 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
List and define the seven genres of children's literature and YA literature and know books in each genre. Identify leading authors and their books in the various areas of children's and YA literature.
Recognize and list major illustrators of children's literature.
Promote children's literature and reading.
Identify literature from various cultural groups around the world and compare different version of fairytales.

## EDLM 448. Collection

Development/Library Media
(3). Explore the methods used and the issues and solutions involved in developing a collection in a school library media center. EDLM 448 and EDLM 548 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Grasp knowledge of aids available in Library Media. Aware of knowledge of methods to deal with censorship and intellectual freedom issues.
Construct a purchase plan for items in a specific curriculum. Summarize literature that can be correlated with the content areas of the curriculum.
EDLM 458. Cataloging and Classification for Library Media (3). Cataloging and classification of library media materials with an emphasis on MARC records. Includes Dewey Decimal classification system, authorized subject
headings, and assigning MARC tags using original and copy cataloging of book and non-print items. EDLM 458 and EDLM 558 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Illustrate an understanding of the theories and accepted principals of standardized cataloging systems and how resources are searched. Recognize matching MARC records when available. Will be familiar with online bibliographic data such as OCLC, LC, and other records. Edit basic MARC
bibliographic records for both print and non-print formats.
EDLM 468. Research and Information Fluency (3).
Reference tools, information sources, search strategies, research models, and evaluative techniques will be explored as tools to enable students to be more information literate. EDLM 568 and EDLM 468 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Evaluate resources before purchasing.
Deliver effective reference services.
Understand the importance of effectively promoting new material, technology and services.
Organize appropriate resources
for a library using selection tools, needs assessment and collection and curriculum mapping.
State and use information literacy standards.
EDLM 478. Administration of Library Media Programs
(3). Develops competency in administering materials, equipment, and services of library media program as integral part of the school. Focus on leadership, personnel, budgets, facility planning, state
and national standards in planning, evaluation and program development. EDLM 478 and EDLM 578 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Develop personal, professional, and program goals to facilitate growth that support your philosophy statement Use budget and facility reports, flyers and library promotions as effective means of communication wit-h students, faculty, staff, administrators, parents, other colleagues and the general public.
Develop a fiscal plan and budget tracking instrument that supports the needs of the learning standards and collection needs as indicated by the curriculum and collection maps.
Implement and evaluate school library media programs to meet educational goals, including the management of personnel, resources, facilities, and the diverse needs of the patrons.
EDLM 492. Library Media
Practicum (1-4). An
individualized field experience in a public/private school setting supervised/coordinated by CWU faculty. Prerequisite: permission to register only by the department.
Upon successful completion of this course, the student will be able to:
Integrate Web 2.0 technologies within the essential academic learnings.
Assess and select diverse literature appropriate for children and young adults. Demonstrate utilization of existing and emerging instructional technologies. Serve as a leader in promoting a positive media and technology rich learning environment that nurtures a sense of community and a respect for diverse cultures and learners in the school.

EDLM 496. Individual Study
(1-6). May be repeated if subject is different.
EDLM 497. Honors (1-12).
Prerequisite: admission to department honors program. EDLM 498. Special Topics (1-6). May be repeated if subject is different.
EDLM 499. Seminar (1-5). May be repeated if subject is different.
EDLT 217. Exploring Global Dynamics through Children's and Adolescent
Literature (4).
Interdisciplinary connections with critical analysis of global and international children's/adolescent literature are explored. Comparisons across contemporary, historical, social, political, and economic issues through global and international children's/adolescent literature read and discussed. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to:
Read, examine, and critically compare a wide variety of global and international children's/international books, genres, authors and illustrators Compare how countries address, present, and explain contemporary, historical, social, political, and economic issues to children and adolescents through literature Critically evaluate the literary and artistic comparative viewpoint of global and international children's/adolescent books Critically evaluate issues in the field of global and international children's and adolescent literature, such as cultural authenticity, translation, and award-giving Select and read high quality global and international children's and adolescent books Demonstrate various methods for introducing children and adolescents to quality global and international books EDLT 218. Exploring Issues of Sustainability through

Writing (4). Issues of sustainability (social, political, environmental, and economic human practices) will be explored through a "flipped classroom." Writer's workshop will be used during class, with course information and readings presented through digital and print means. Course will be offered every year (Spring, Summer).
Upon successful completion of this course, the student will be able to:
Identify sustainable issues in communities, society, and other contexts Describe issues of sustainability, particularly social, political, environmental, and economic human practices Demonstrate processes, purposes, and practical aspects of writing about sustainability in a workshop format
Write on issues of sustainability using traits of effective writing with the support of narrative, informational, argumentative, and poetry mentor texts Demonstrate strategies for finding, selecting, and refining topics about sustainability for writing
Demonstrate components of writing process and its recursive, interactive, and collaborative nature Demonstrate traits of effective writing (e.g. development of ideas, organization, voice, word choice, sentence structure, and conventions) through writing Demonstrate how purpose, audience, mode, form and perspective shape writing through writing
EDLT 219. Storytelling
Across Disciplines (4).
Contemporary trends and interdisciplinary connections of storytelling are explored. Selection, adaptation, and presentation of stories across culture, perspectives, histories, and societies will be emphasized. Aesthetic judgement and critical thinking will be used in evaluating
storytelling. Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to:
Recognize the importance and value of telling stories: communicatively, culturally, educationally, linguistically, and societally
Recognize and the importance of storytelling as a means of appreciating the diversity yet commonality of many cultures Demonstrate techniques for selecting stories to tell Practice techniques for preparing to tell stories Perform storytellings from the assigned areas
Cooperatively plan, organize and perform a storytelling event with peers for a community agency Demonstrates a variety of story related activities and devices to enhance the storytelling experience
Identify and use storytelling assessment tools of self and others
EDLT 296. Individual Study (1-6).
EDLT 298. Special Topics (16).

EDLT 299. Seminar (1-5). May be repeated for credit. EDLT 308. Literacy I (3). First of two courses designed to prepare prospective teachers to teach literacy in elementary school classrooms. Deals with processes and products of the literacy act, methods and materials, assessment procedures, and instruments. Upon successful completion of this course, the student/teacher candidate will be able to:
Foundational Knowledge: Have knowledge of the foundations for reading and writing processes and instruction. WA ELED 1.2.1, 1.2.2; 1.2.3 WA READ:1.1, 1.1.1, 1.2, 1.2.1,1.2.2, 1.2.3, 1.2.41.3.2. 1.3.3, 1.4 CTL: 1.1 Assessment, Diagnosis, and Evaluation: demonstrate knowledge of the assessment/evaluation/instructi on cycle and how to use a
variety of assessment tools and practices to plan and evaluate effective reading instruction.
WA ELED 1.2.1, 1.2.2; 2.0 WA READ: 2.1.2, 2.2.4, 2.2.6 CTL: 1.1 WA Standard V Instructional Strategies and Curriculum materials: have knowledge of a wide range of instructional practices, approaches, methods, and curriculum materials to support reading and writing instruction. WA 1.2.1, 1.2.2, 1.2.4; 2.0 WA READ: 3.1,3.1.5, 3.2.5, 3.4, CTL: 1.1 WA Standard V Creating a Literate Environment: create a literate environment that fosters reading and writing by integrating foundational knowledge, use of instructional practices, approaches and methods, curriculum materials and the appropriate use of assessments. WAELED 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5;2.0 WA READ: 4.1, 4.2, 4.3, 4.4, 4.6, 4.7 CTL: 1.1 WA Standard V
Professional Development:
view professional development as career-long effort and responsibility. WA READ: 5.1, 5.3 CTL: 1.1, 1.4 Demonstrate a deep understanding of the pedagogical knowledge and practice specific to the teaching of reading and writing. WA ELED 1.2.1, 1.2.2; 2.0 WA READ: 6.5.3, 6.5.5, 6.5.7 CTL: 1.1

EDLT 315. Literacy
Strategies for Struggling and Advanced Learners (Put on reserve 9/16/16.) (3).
Techniques for identifying and differentiating instruction for both struggling and advanced literacy learners. (Put on reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Prerequisite: current WSP/FBI fingerprint clearance

Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate knowledge of some of the characteristics and special literacy needs of
various populations of struggling and advanced literacy learners (i.e., gender, ethnicity, SES, urban/rural, handicapped, extremely gifted, etc.); CTL: 1.3, 1.4, 1.8 WA
READ: 1 WAC 181-78A-270
(\#1, 2, 3) (Standard V) IRA: 1, 4
Demonstrate awareness of
differing concepts of
intelligence, creativity,
learning disabilities CTL: 1.1,
1.2 1.3 WA READ: 1, 2, 5

WAC 181-78A-270 (\#1, 2, 3)
(Standard V) IRA: 1, 4
Demonstrate understanding of prevalent attitudes towards the struggling and advanced literacy learners along with an ability to articulate their own, perhaps changing, attitudes
CTL: 1.1, 1.2, 1.3 WA READ: 3, 4, 5 WAC 181-78A-270 (\#1, 2, 3) (Standard V) IRA: 1, 4, 6 Demonstrate knowledge of methods for identifying struggling and advanced learners' CTL: 1.1, 1.2, 1.3 WA READ: 2 WAC 181-78A270 (\#1, 2, 3) (Standard V)
IRA: 1,3
Demonstrate competence in designing appropriate curricula and instruction to challenge and foster the continued literacy Development of struggling and advanced literacy learners. CTL: 1.1, 1.2, 1.3, 1.4, 1.8 WA READ: 3,4 WAC 181-78A-270 (\#1, 2, 3) (Standard V) IRA: 1, 2, 5 Develop an understanding of and respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles. CTL: 1.1, 1.3, 1.4, 1.8 WA READ: 4 WAC 181-78A-270 (\#1, 2, 3)
(Standard V) IRA: 4, 5
Participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities. CTL: 1.1, 1.3, 1.4 WA READ:5

WAC 181-78A-270 (\#1, 2, 3) (Standard V) IRA: 2, 5, 6 Plan research-based instruction based on student assessments. CTL: 1.1, 1.2, 1.3, 1.8 WA
READ: 1, 2, 3, 4, 6 WAC 181-

78A-270 (\#1, 2, 3) (Standard
V) IRA: $1,2,3,4,5$

EDLT 317. Early Literacy (On reserve as of $9 / 16 / 15$ ) (3).
Aspects of early literacy acquisition and instruction including language development, phonemic awareness, writing, play and socio-cultural contexts are emphasized. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: current WSP/FBI fingerprint clearance

Upon successful completion of this course, the student will be able to:
Explain the concept of meaningful experiences that lead to language and literacy acquisition in young children. CWU-CTL. 1 IRA.1, 2 WA READ 1.0 Standard 5.1, 5.2, 5.3

Describe a plan for establishing connections between the school and the home \& community. CWU-CTL. 1 IRA.1, 2, 4, 5 WA READ 1.1.3; 3.1.5, 3.2.1, 4.1, 5.1, 5.3, 6.2, 6.3.6 Standard 5.3 Provide definitions and examples of key concepts in these areas: (a) young children's conceptual knowledge at various developmental levels, (b) form and structure of language, (c) social knowledge and skills, and (d) evaluation of children's literacy acquisition. CWUCTL. 1 IRA. 1 WA READ-
1.1.1, 1.1.4, 1.2.1, 1.3, 2.0;
3.1.5, 4.1, 5.1, 6.3, 6.5.8, 6.6.5

Standard 5.1, 5.3
Demonstrate how theory is put into practice in each of these areas: (a) vocabulary development, (b) comprehension of story structure, (c) grapheme awareness, (d) sound discrimination and listening skills, (e) phoneme awareness and phonics, and (t) print awareness and spelling development. CWU-CTL. IRA.1, 2, 3, 4, 5 WA READ 1.2, 3.1.2, 3.1.3, 3.1.4, 3.3, 3.4, 6.5.2, 6.5.3, 6.5.4, 6.5.5, 6.5.7, 6.6.1 Standard 5.1, 5.3

Identify and explain key concepts in second language acquisition. CWU-CTL. 1 IRA.1,4 WA READ 1.3, 2.2.5, 3.2.1, 3.2.3, 5.1, 6.3.3, 6.6

EDLT 319. Storytelling Techniques (Put on reserve $9 / 16 / 16$.) (3). Storytelling in the integrated curriculum. Students become familiar with a variety of stories and demonstrate the ability to tell stories. (Put on reserve $9 / 16 / 16$. Last taught in 2013 Will go inactive 8/24/19.) Prerequisite: current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to:
Recognize the importance and value of telling stories to children: communicative, educational, social, cultural.
CTL 1.1 WA READ 1.3.2;
3.1.1, 4.1, 4.3, 4.4, 4.5, 5.1, 6.5.1, 6.6.3 IRA 1

Recognize the role and value of storytelling as a means to help emergent readers come to know the concept of story. CTL 1.1 WA READ 1.1.4, 1.1.5, 1.2.6, 1.2.7, 6.5.1, 6.5.9, 6.5.10, 6.6.3 IRA 1

Recognize and understand the importance of storytelling as a means of appreciating the diversity yet commonality of many cultures. CTL 1.1 WA READ 1.3.2, 5.1 IRA 4 Master the techniques for selecting a story to tell. CTL 1.1 WA READ 5.2, 5.3, 6.6.3 IRA 4
Master the techniques for learning a story. CTL 1.1 WA READ 5.2, 5.3, 6.6.3 1RA4 Master the techniques for telling stories. CTL 1.1 WA READ 5.2, 5.3, 6.6.3 IRA 4
Able to work cooperatively with classmates in order to plan, organize and present a community agency. CTL 1.1 WA READ 1.3.3, 4.3, 5.3, 6.2 IRA 5.1 Standard 6
Masters a variety of story related activities and devices to enhance the storytelling experiences. CTL 1.1 WA READ 3.2, 4.4, 4.5, 4.6, 6.6 1RA4

Identify and use storytelling assessment tools. CTL 1.1 WA
READ 2.1, 2.2 IRA 3.1
Standard 2
EDLT 321. Teaching
Children's Literature (3). The types of literature suited to children in grades 1-6; includes reading and evaluation of material from early folklore to present day books for children Prerequisite: current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student/teacher candidate will be able to: Identify the major genres of children's literature. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.2.4 IRA 2.3
Understands traditional and contemporary literature written in a variety of genres. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.2.4 IRA2.3
Identify major children's authors and illustrators in a variety of genre. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.2.4 IRA 2.3

Know the criteria for selection of quality literature in each genre and is knowledgeable using the literature to design instruction appropriate to the students' stages of development, needs, and learning style. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.2; 4.1, 4.2, 4.4, 4.5; 6.5 IRA 2.1; 2.3; 5.1

Identify the major awards given in the field of children's
literature. CTL 1.1, 1.3 WA
ELED 1.2.4 WA READ 3.2.4
IRA 1.2
Identify, reflect upon, and debate issues in the field of children's literature. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.2.4 IRA 1.2; 1.3; 4.2; 5.2

Have a variety of skills for reading aloud, storytelling, and sharing literature with children. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 3.1.2, 3.1.3, 4.7; 6.6.5 IRA 4.2; 4.3; 5 Understand that literature represents different cultures and traditions and have an acquaintance with children's
literature from a wide variety of cultural groups. CTL 1.1, 1.3 WA ELED 1.2.4 WA READ 4.1; 6.5.8 IRA4
Will be familiar with literature that can be incorporated into a literacy curriculum and correlated with content subjects. They will also be able to construct learning opportunities to support children's development and motivation. CTL 1.1, 1.3 WA ELED 1.1.7; 1.2.2, 1.2.4; 1.5.9; 1.5.10; 1.5.11; WAC 181-78A270 (\#1, 2, 3) (Standard V) WA READ 1.2.8, 1.4; 3.2.4, 4.1, 4.2, 4.5; 6.6.3 IRA 2; $4 ; 5$ Identify and use technology as related to children's literature.
CTL 1.1, 1.3 WA ELED 1.2.5
WAC 181-78A-270 (\#3)
(Standard V) WA READ 4.5 IRA4; 5
EDLT 324. Literacy Across the Curriculum (3). For K-12 school teachers, administrators. Focuses on knowledge, strategies and skills needed by $\mathrm{K}-12$ students for efficient and effective use of print and nonprint materials across the curriculum. Prerequisite: current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate how to use reading, writing, speaking and listening as instructional tools. WA READ: 1.0 WA Standard V, (WAC 181-78A-270), 5.1
IRA: 1.1
Demonstrate knowledge of a wide range of comprehension strategies to meet the varied needs of the students in content area classrooms. WA READ 1.0, 3.0 WA Standard V, (WAC 181-78A-270), 5.1 IRA: 2.1, 2.2

Demonstrate understanding of the content teacher's role in using student literacy assessment data to inform instruction. WA READ: 2.0 WA Standard V, (WAC 181-78A-270), 5.1 IRA: 3.1 Demonstrate ability to interpret assessment data and to plan and modify instruction to meet
the needs of all students. WA READ: 2.0, 6.0 WA Standard V, (WAC 181-78A-270), 5.1 IRA: 3.1, 3.2, 3.3
Demonstrate knowledge of a wide range of strategies to comprehend, analyze, interpret, and evaluate a variety of literary and expository texts. WA READ: 3.0, 6.0 WA Standard V, (WAC 181-78A270), 5.1 IRA: 2.3 Demonstrate knowledge of a wide range of research-based literacy instructional strategies, approaches and methods, including technology-based practices, for learners at differing stages of development and from differing cultural and linguistic backgrounds. WA READ: 1.0, 3.0, 5.0, 6.0 WA Standard V, (WAC 18I-78A-270), 5.1 1RA: 2.0, 4.2

Demonstrate knowledge of selecting and adapting a variety of print, nonprint, and classroom-based instructional materials for literacy, including those that are technology-based and are appropriate to the developmental needs of the student. WA READ: 6.0 WA Standard V, (WAC 18I-78A270), 5.1 1RA: 5.1 Demonstrate the ability to identify and serve students who need intervention based on reading difficulties. WA READ: 2.0 WA Standard V, (WAC 18I-78A-270), 5.1 1RA: 1.3, 4.3

Provide opportunities for integration of reading and writing across content areas. WA READ: 4.0, 6.0 WA Standard V, (WAC I81-78A270), 5.1 1RA: 2.1, 2.2 Design instruction that purposefully considers context, standards and research. WA READ: 1.0, 3.0 WA Standard V, (WAC 181-78A-270), 5.1 IRA: 1.1, 2.1
Develop teaching plans that reflect understanding of research-based best practice, demonstrate reflection and adjustment of instruction, and lead to identification of areas for professional growth.

WAREAD:5.0 WA Standard V, (WAC 181-78A-270), 5.1.
1RA: 1.1, 1.3, 2.1
Complete regular needs-based self-reflection resulting in a draft growth plan.
WAREAD:5.0 WA Standard
V, (WAC 181-78A-270), 5.1
IRA: 6.2
Review and reflect on disciplinary literacy on OSPI website. WA READ: 5.0 IRA: 6.3

EDLT 396. Individual Study
(1-6). By permission. May be repeated for credit.
EDLT 397. Honors (1-12).
Prerequisite: admission to department honors program.
EDLT 398. Special Topics (16). May be repeated for credit.

EDLT 399. Seminar (1-5).
May be repeated if subject is different.
EDLT 409. Literacy II (5).
Content and methodology of early literacy, vocabulary development, phonic and structural analysis, comprehension and study skills. Field experience in a local school embedded. Prerequisites: EDLT 308, current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program. Upon successful completion of this course, the student/teacher candidate will be able to: Foundational Knowledge: candidates have knowledge of the foundations for reading and writing processes and instruction WA ELED: 1.2.2 WA READ: 1.1.2, 1.1.4, I.1.5, 1.2, 1.2.4, 1.2.5, 1.2.6, 1.3, 1.3.1, 1.3.2, 1.3.3, 1.4 CTL:1.1 IRA: 1.1
Assessment, Diagnosis, and Evaluation: Candidates demonstrate knowledge of the assessment/evaluation/instructi on cycle and how to use a variety of assessment tools and practices to plan and evaluate effective reading instruction. WA READ: 2.1, 2.1.1, 2.1.2, 2.2, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.2.5, 2.2.6 CTL: 1.1, 1.2 WA Standard V, (WAC 181-78A270) 5.1, 5.3 IRA: 3.1, 3.2, 3.3, 3.4

Instructional Strategies and Curriculum materials: Candidates have knowledge of a wide range of instructional practices, approaches, methods, and curriculum materials to support reading and writing instruction. WA ELED 1.2.2, 1.2.3; 1.2.3, 1.2.4, 1.2.5 WA READ: 3.1, 3.11, 3.1.2, 3.1.3, 3.1.5, 3.2.2, 3.2.6, 3.3, 3.4 CTL: 1.1 WA Standard V, (WAC 181-78A-270) 5.1, 5.2, 5.3 IRA: 2.1, 2.2, 2.3 Creating a Literate Environment: Candidates create a literate environment that fosters reading and writing by integrating foundational knowledge, use of instructional practices, approaches and methods, curriculum materials and the appropriate use of assessments. WA ELED 1.2.1; 1.2.2; 1.2.3, 1.2.4; 1.2.5 WA READ: 4.1, 4.2, 4.3, 4.4, 5.4 CTL: 1.1, 1.5 WA Standard V, (WAC 181-78A-270) 5.1,5.2, 5.3 IRA: 5.1, 5.3

Professional Development: Candidates view professional development as a career-long effort and responsibility by developing a professional teaching/literacy plan. WA READ: 5.1, 5.2, 5.3 CTL: 1.4 WA Standard V, (WAC 181-78A-270) 5.4 IRA: 6.2 Instructional Methodology: Candidates demonstrate a deep understanding of the pedagogical knowledge and practice specific to the teaching of reading and writing. WA ELED 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5 WA READ: 6.1, 6.2, 6.3, 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5,
6.3.6, 6.4, 6.5, 6.5.1, 6.5.3, 6.5.5, 6.5.7, 6.5.7, 6.5.9, 6.5.10, 6.6, 6.6.1, 6.6.2, 6.6.3, 6.6.4, 6.6.5 CTL: 1.1, 1.2, 1.3, 1.5 WA Standard V, (WAC 181-78A-270) 5.1, 5.2,5.3
IRA: 1.2, 1.3, 2.1
EDLT 410. Teaching Word Recognition Skills (3).
Methods for teaching word recognition skills will be developed. Decoding as an aid to comprehension, including phonetic analysis, context clues, structural analysis, and
sight vocabulary. Prerequisites: EDLT 308 and EDLT 409, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate knowledge of reading research and histories of reading. CTL: 1.1 WA READ: 1.1.3; 5.2; 6.1; IRA: 1.2

Demonstrate knowledge of the major components of reading (phonemic awareness, word identification, and phonics, vocabulary and background knowledge, fluency and comprehension strategies, and motivation) and how they are integrated in fluent reading. CTL: 1.1 WA READ: 1.1.2; 1.2 IRA: 1.0

Use a wide range of instructional practices, approaches, and methods, including technology-based practices, for learners at different stages of development and from differing cultural and linguistic backgrounds. CTL: 1.1 WA READ: 3.1; 3.2.1 IRA: 2.0
Use a wide range of curriculum materials in effective reading instruction for learners at different stages of reading and writing development and from different cultural and linguistic backgrounds. CTL: 1.1 WA READ: 3.2; 6.5 IRA: 2.0
EDLT 411. Teaching
Comprehension (3).
Comprehension strategies and techniques; techniques for vocabulary development. Prerequisites: EDLT 308 and EDLT 409, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance . Upon successful completion of this course, the student/teacher candidate will be able to:
Understand the role language, schemata, and prior knowledge play in comprehension. CTL:
1.1 WA READ: 1.2.6; 1.2.7;
1.3.2; 3.1.5 IRA: 1.0

Understand the nature of reading comprehension and factors that affect a reader's comprehension. CTL: 1.1 WA READ: 1.1.5; 1.2.6; 1.2.7; 1.3.2; 3.1.5 IRA: 1.0 Understand the importance of assessing and evaluating student's comprehension and how the information gathered affects planning for instruction to meet student's needs. CTL:
1.1 WA READ: 2.1; 2.2.5

IRA: 3.0
Develop and expand reader's
vocabulary. CTL: 1.1 WA
READ: 3.3.6; 5.2 IRA: 1.0
Develop a repertoire of comprehension strategies to use with a variety of learners in
a variety of situations. CTL:
1.1 WA READ: 3.1.2; 3.1.3; 6.5.7 IRA: 1.0

Demonstrate ability to select, design, and implement appropriate reading comprehension instruction for groups and individuals. CTL:
1.1 WA READ: 3.1.1; 3.1.4;
6.5.2; 6.5.7 IRA: 1.0

Identify and use technology appropriately as related to comprehension. CTL: 1.1 WA
READ: 3.1.1; 6.5.1 IRA: 2.0
EDLT 412. Assessment of Literacy Skills and Processes
(3). Assessment instruments, procedures, and interpretive skills for determining student reading levels and needs. Emphasizes the selection, administration, and interpretation of evaluation tools. Prerequisites: EDLT 308 and EDLT 409, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance . Upon successful completion of this course, the student/teacher candidate will be able to: Value assessment as essential in the learning process, and realizes that many different assessment strategies are necessary for evaluating learning and planning effective classroom and individual literacy instruction. IRA
Standards: 4.2, 10.1, 10.2 WA
READ: 2.1; 2.1.2; 2.2; 6.3.3; 6.3.4

Develop a working knowledge of the purposes, administration, and interpretation of various formal and informal classroom literacy assessments, e.g., IRIs, structured observations, portfolios, performance-based measures, learner selfassessment, peer assessment, and standardized tests IRA Standards: 4.2, 10.1, 10.2 WA READ 2.1; 2.2; 6.3; Develop skills in administering and interpreting students' literacy abilities using IRIs, running records, developmental continua, portfolios, cloze procedures, and other informal reading assessments IRA Standards:
4.2, 10.1, 10.2 WA READ:
2.1.1; 2.2; 6.3.1

Develop skills in using assessment data to plan instruction and learning opportunities that support students' development, learning, and motivation in literacy IRA Standards: 4.2, 10.2, 11.1, 11.2, 11.3, 12.2 WA READ: 2.2.1; 2.2.3; 2.2.5; 6.3.1; 6.3.3; 6.3.4

Develop skills in the evaluation of students' study, comprehension, writing, and thinking skills in content subject material,-- social studies, science, mathematics, etc. IRA Standards: 4.2, 10.1, 10.2 WA READ: 2.2; 6.3.2; 6.3.4; 6.3.5;

Develop knowledge of national
(NCATE, International
Reading Association, etc.) and Washington State standards for assessment IRA Standard: 4.2,
CTL Standard: 1.1 WA READ: 1.4; 5.2

EDLT 413. Methods and Materials for Literacy Instruction (3). Strategies for classroom management, implementation of learning theories. Prerequisites: EDLT 308 and EDLT 409, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance .
Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of the reading process WA READ 1.0 IRA 1.1 CTL 1.1
Demonstrate knowledge of the major models of reading instruction WA READ 1.0 IRA 1.1 CTL 1.1

Demonstrate knowledge of salient features of various approaches to reading instruction: whole language, language experience, literature based, basals, phonics WAREAD3.0 CTL 1.1 Demonstrate knowledge of how to organize a multiapproach literacy program WAREAD4.0 IRA 4.3, 5.3 CTL 1.1
Examine and develop a variety of supplemental reading materials/strategies WA READ
3.1.1, 3.2.1, 3.2.2, 3.2.3, 3.3;
4.4; 5.2; 6.5.1 IRA 4.2, 4.3, 5.3

CTL 1.1
Reflect/refine a personal philosophy of reading/learning/instruction WA READ 1.0; 5.0 IRA 5.3
CTL 1.1
EDLT 414. Teaching
Literacy in a Multi-Cultural, Multi-Lingual Setting (3).
Strategies for teaching literacy and developing language skills in a multi-cultural, multilinguistic setting. Prerequisites: EDLT 308 and EDLT 409, current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program. Upon successful completion of this course, the student/teacher candidate will be able to:
Demonstrate knowledge of the literacy process. WA READ

### 1.1 ST. 5.1

Demonstrate knowledge of various approaches for developing literacy. WA
READ 3.1; 3.3; 6.5 ST. 5.1, 5.2

Demonstrate knowledge of Children's literature for diverse learners. WA READ 3.2.3;
3.2.4 ST.5.1, 5.3

Demonstrate knowledge of various instructional activities for teaching children from diverse populations. WA
READ 1.3; 3.1; 4.1; 4.2; 4.4; 5.1; 6.5 ST. 5.1, 5.2, 5.3

Demonstrate knowledge of constructing a classroom environment that would foster literacy in children from diverse populations. WA READ4.0 ST. 5.3
Explain various values, life styles, history \& contributions of various groups. WA READ
1.3.2; 3.2.3; 5.1 ST. 5.3

Demonstrate knowledge of resources and professional organizations that foster literacy. WA READ 5.2 ST. 5.4

Demonstrate Professionalism within the categories of: preparation, attendance, quality standards, late assignments and modeling. WA READ 5.3 ST. 5.4

EDLT 418. Literacy and
Linguistics (3). This course is intended to provide literacy teachers with a general introduction to the major fields of linguistics, including phonology and phonetics, morphology, syntax, semantics, discourse analysis, language acquisition, and dialects. Prerequisites: EDLT 308 and EDLT 409, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate knowledge of the role of phonemic awareness (e.g., rhyming, segmenting, blending sounds) and the alphabetic principle in reading acquisition WA READ 1.2.2
Demonstrate an understanding of the social, linguistic, and cultural influences on language and literacy learning WA READ 1.3, 3.2.3; 5.1
Demonstrate an understanding of the functions of orthography, morphology, syntax, semantic, pragmatic systems, and genre patterns, and recognition of the influences of purpose, context, and genre in constructing meaning WA READ 1.1.2; 1.2.7; 1.2.8; 6.5.3; 6.5.4 IRA: 1.1

Demonstrate knowledge of the relationships between oral and written language WA READ
1.1.1; 1.1.4; 1.1.5; 1.2.7; 6.5.3; IRA: 1.1
Demonstrate knowledge of the teacher's role in facilitating reading with a linguistic
perspective WA READ 1.1;
1.3; 3.1.1; 5.2; 5.3; 6.5 IRA:
2.3, 4.1, 4.2

EDLT 422. Teaching the
Language Arts (4). Primarily
for prospective elementary school teachers. Listening, writing, speaking, spelling, and handwriting development. Emphasizes curriculum, methods, materials, and research. Experienced teachers see EDEL 531. Prerequisites:
EDLT 308, current WSP/FBI
fingerprint clearance, and admission to the Teacher Certification Program.
Upon successful completion of this course, the student/teacher candidate will be able to: Identify the steps involved in historical investigation/reasoning. Write a thesis based on several data sets that they have examined in an inquiry lesson. Conduct effective Socratic discussions
Construct effective arguments.
Explain economic concepts
(i.e. supply, demand, scarcity, money, etc.).
Create a mini-unit of instruction.
EDLT 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . Prerequisite: admission to the Teacher Certification Program.
EDLT 493. Literacy
Practicum (6). Practical experience working with children in classroom settings. By permission. Grade will
either be S or U . Prerequisite: EDLT 409, and 5 required courses in the literacy minor. Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate an understanding of both the theoretical and knowledge base in the teaching of reading.
Exhibit a repertoire of evidence-based strategies that meet the diverse needs of students and promote student competency.
Demonstrate the ability to prepare an effective learning environment that fosters reading/literacy. Students will exhibit an understanding and use of effective communication and collaboration skills with students, parents and colleagues about reading/literacy. Demonstrate understanding of and effectiveness in selecting and teaching strategies in the areas of word study, comprehension, and study skills.
Demonstrate effective assessment and evaluation skills necessary for educational decision making. Students will use assessment information plan instruction and impact student learning. Exhibit an understanding of the principles of developing and evaluating curriculum; and demonstrate skill in developing individual educational plans as well as whole group lesson plans.
Prioritize his/her own professional development by keeping current in the knowledge of literacy, and actively reflecting on one's practice to improve instruction and other services to student. Design and implement literacy lessons that reflect enduring understandings and depth of thinking which is aligned with curriculum standards. Use assessment(s) to provide useful information to inform their instruction

Plan instruction to move students who are not at standard to standard. Create instructional plans that reflect the context of the learner, including individual variables as well as classroom, school, family, neighborhood, and community.
Create instructional plans that reflect understanding of research based best practice, demonstrate reflection and adjustment of instruction, and lead to identification of areas for professional growth. Participate in collaborative learning communities and develop collegial relationships. Complete regular needs- based self- reflection resulting in a draft professional growth plan. Demonstrate dispositions that enhance learning and professional development.
EDLT 496. Individual Study (1-6). By permission. May be repeated for credit. Grade will either be S or U .
EDLT 497. Honors (1-12).
Prerequisite: admission to
department honors program.
EDLT 498. Special Topics (1-
6). May be repeated for credit.

EDLT 499. Seminar (1-5).
May be repeated for credit.
EDSE 296. Individual Study (1-6).
EDSE 298. Special Topics (1-
6). May be repeated if subject is different.
EDSE 299. Seminar (1-5). May be repeated if subject is different.
EDSE 302. Introduction to Students with
Exceptionalities (3).
Introduces strategies for effective teaching and adapting standard instruction to meet needs of range of students found in a typical classroom. Provides information about students considered disabled and gifted and students with multicultural heritages. Course
will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY
314 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full
admission to the Teacher Certification Program
Upon successful completion of this course, the student will be able to:
Describe the philosophical, historical, and legal foundations of special education.
List and describe formative special education litigation and legislation and the effects on public education.
Identify the major professional organizations that facilitate research and experience-based principles for best practices in special education.
Define the pre-referral, referral, assessment, and eligibility purpose and processes.
Explain eligibility categories of special education services and characteristics of each.
List and describe the range of service options available and least restrictive environments, including general education classroom for students with disabilities.
List the components of the Individualized Education Program (IEP) and the members of the IEP team, and explain the role and responsibilities of the general education teacher in the IEP process.
Describe the state goals and essential academic learning requirements as they relate to inclusion of, and
accommodations for, special populations.
Describe and demonstrate how to adapt instruction for students with disabilities.
Demonstrate effective written/verbal communication and collaboration skills. Access current research regarding best practices in special education and technology-based support resources.

## EDSE 310. Introduction to

 Special Education (4). Prerequisite to a Special Education course of study. Junior or senior class standing required or permission ofinstructor. Designed to introduce prospective teachers to the legal requirements of special education including eligibility, programming, and instruction. Skills necessary for collaborative relationships in the multidisciplinary team process will also be emphasized. Prerequisite: current WSP/FBI fingerprint clearance, and conditional or full admission to the Teacher Certification Program.
EDSE 311. Foundations of Special Education (1). Designed to provide prospective teachers with the necessary foundations for successful completion of the special education course of study including end-ofprogram assessment, undergraduate research, and written and oral communication skills. This course should be taken at the beginning of the special education course of study. Upon successful completion of this course, the student/teacher candidate will be able to: Identify and describe the CWU Special Education end-ofprogram portfolio Articulate and write a personal philosophy regarding the teaching of students with disabilities including its relationship to/with general education
Recognize characteristics common to disability characteristics, describe barriers to acceptance and accessibility and demonstrate a sensitivity for the culture, language religion, gender disability SES and sexual orientation of individuals
Access professional organization and publications that support individuals with disabilities their families and colleagues
Demonstrate commitment to developing the highest education and quality of life potential of individuals with disabilities, a demonstrated in professional is m exhibited in
identified course
activities/syllabus
EDSE 396. Individual Study (1-6).
EDSE 397. Honors (1-12)
Prerequisite: admission to department honors program.
EDSE 398. Special Topics (16).

EDSE 399. Seminar (1-5).
May be repeated if subject is different.
EDSE 410. Behavior Management for Students with Disabilities (3).
Fundamentals of behavior change related to the education of students with disabilities. Monitoring individual student progress and utilizing data collected for program instructional change.
Prerequisites: EDSE 310, EDSE 311, current WSP/FBI
fingerprint clearance, and conditional or full admission to the Teacher Preparation Program.
EDSE 411. Assessment of Students with Disabilities (4).
Selecting, administering, scoring, and interpreting formal assessment tools. Designing and using informal testing techniques.
Prerequisites: EDSE 310, 311, and conditional or full admission to the Teacher Certification Program.
EDSE 422. Teaching
Strategies, Curriculum, and
Materials for Students with
Disabilities (5). Individual, small, and large group teaching strategies essential to individualized education programs, and selection, evaluation, and adaptation of commercially available materials, including computer applications.
Prerequisites: EDSE 310 and
EDSE 311, either EDSE 410 or
EDSE 411, and admission to
the Teacher Certification
Program.
EDSE 423. Instructional
Practices/Strategies in
Literacy and Math for
Students with High Incident
Disabilities (4). Specially
designed instructional
strategies and programming considerations for students with high incidence special needs in reading, written expression and mathematics. Prerequisites: EDSE 310, EDSE 311, EDSE 410, EDSE 411, current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program Upon successful completion of this course, the student/teacher candidate will be able to: Demonstrate competence in identifying, discussing, analyzing and applying research-based reading practices and strategies for students with disabilities. (See syllabus for exact listing of all state and professional-based competencies).
Demonstrate competence in identifying, discussing, analyzing and applying research-based written expression practices and strategies for students with disabilities.
Demonstrate competence in identifying, discussing, analyzing and applying research-based mathematics practices and strategies for students with disabilities. Discuss and use technologies in the instructional process incorporating assistive technologies into the education program for reading, written expression and mathematics. Identify characteristics of research-based instructional materials and in reading, written expression and mathematics for students with high incidence disabilities.
EDSE 426. The Child with Language Disabilities (3). An exploration of the child with language disabilities (age birth6) from the perspective of normal language development, assessment strategies, and remedial techniques.
Recommended for teachers of children with mild and severe disabilities. Prerequisites:
EDSE 311, current WSP/FBI fingerprint clearance, and application or admission to
the Teacher Certification
Program.
EDSE 431. Individualized
Educational Programs for Students with Disabilities (4).
Designed to introduce prospective students to the legally and professionally supported process for creating IFSP's and IEP's. Prerequisites: EDSE 310, EDSE 311, EDSE
410, EDSE 411 and EDSE 422
and admission to the
Teacher Certification Program. Upon successful completion of this course, the student/teacher candidate will be able to: Create an Individualized Family Service Plan, with a transition component, following the legal and professional guidelines discussed in class Create an Individualized Education Program for an elementary aged student that includes a transition component, following the legal and professional guidelines discussed in class Create an Individualized Education Program for a secondary aged student that includes a transition component, following the legal and professional guidelines discussed in class
EDSE 432. Strategies for Working with Students with Low Incidence Disabilities
(3). Designed to introduce prospective teachers to the research supported strategies necessary for effective implementation for students with low incidence disabilities. Prerequisites: EDSE 310, EDSE 311, EDSE 410, EDSE 411, and admission to the Teacher Certificate Program. Upon successful completion of this course, the student/teacher candidate will be able to: Identify evidence supported strategies for teaching students with low incidence disabilities Identify research supported curricula materials and adaptations for students with low incidence disabilities Identify evidence supported self-advocacy practices for
students with low incidence disabilities
EDSE 433. Pre-school for Students with Developmental
Delays (3). An overview of services for children with disabilities, aged birth-6, including legislation, risk factors, educational development, alternative delivery systems and intervention approaches and environments. Prerequisites: EDF 302 or EDSE 310, current WSP/FBI fingerprint clearance, and admission to Teacher Certification Program.
EDSE 460. Collaboration
with Parents,
Paraprofessionals, and Community Agencies (4)
Designed to introduce prospective teachers to the legal requirements of special education including eligibility, programming and instruction. Also emphasizing skills necessary for collaborative relationships in the team process.
Prerequisite: conditional or full admission to the Teacher Certification Program.
EDSE 489. Research and Inquiry (Put on reserve $9 / 16 / 15$.) (2). Course designed to enhance understanding of research and inquiry skills related to disability topics and issues for prospective special educators. By permission. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisites: EDSE 310, EDSE 311, EDSE 410, EDSE 411, EDSE 422, and admission to the Teacher Certification Program.
Upon successful completion of this course, the student/teacher candidate will be able to: Identify, research, and present current issues related to disability identification, practices, interventions or special education services that impact individuals with special needs.
Critically reflect upon the ability to articulate perspectives and research on current issues in special education

Accurately summarize evidence-based information in disability and special education issues, including implications for a selected issue area. Describe and support advocacy actions (personal and at-large) related to the selected issue resented on disabilities or special education as well as design a personal advocacy plan to support best practices for students with disabilities. Design an inquiry project which articulates a selfevaluation of inquiry-related skills (research, professional development or advocacy) to meet a current goal or need.
EDSE 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated for credit. Grade will either be S or U. Prerequisite: current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program.
EDSE 491. Workshop (1-6).
May be repeated for credit. Prerequisite: admission to the Teacher Certification Program or permission of the instructor. EDSE 495. Practicum (5-16).
Practical experience with children having learning, behavioral or physical disabilities; using behavioral management techniques in an effort to bring the child up to maximum potential as determined by his/her flexibility, sociality and capacity. May be repeated up to 16 credits. Grade will either be S or U. Prerequisite: current WSP/FBI fingerprint clearance
EDSE 496. Individual Study (1-6).
EDSE 497. Honors (1-12).
Prerequisite: admission to department honors program.

EDSE 498. Special Topics (16).

EDSE 499. Seminar (1-5).
EET 101. Everyday
Electronics (4). An
introduction to electronics history, analog and digital circuit components, common troubleshooting practices, and circuit analysis techniques, with an emphasis on modern devices and their impact on society. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Develop a written report that communicates a subset of electronics history, and analysis of its social, political and ethical implications Demonstrate an ability to identify electronic components Demonstrate an ability to differentiate between analog and digital circuits Demonstrate an ability to make a presentation that communicates an analysis of a modern electrical device and its impact on society Demonstrate an ability to prototype and solder an electrical circuit Demonstrate an ability to identify common circuit analysis techniques
EET 221. Basic Electricity
(3). The fundamental principles of DC and steady state AC circuit analysis are introduced. Analysis techniques include series/parallel equivalence, nodal, mesh, and phasor analysis. Three hours of lecture per week. Course will be offered every year (Fall). Prerequisite: MATH 154 or instructor permission. Corequisite: EET 221LAB. Upon successful completion of this course, the student will be able to:
Use the basic electrical laws
(Ohm's Law, Kirchhoffs
Voltage Law, Kirchhoffs
Current Law, power) to analyze electrical circuits.

Solve direct current (DC)
series, parallel, and seriesparallel networks. Solve alternating current (AC) series and parallel networks using complex notation.

## EET 231. Introduction to

 Electrical Power (4). An introduction to electrical power and energy conversion in DC, single phase AC and balanced three phase AC systems. Prerequisite: EET 221 and MATH 172.Upon successful completion of this course, the student will be able to:
Identify DC , single phase AC , and three phase AC systems. Determine power in DC systems.
Determine Complex, Real, Reactive, and Apparent power in single phase AC systems.
EET 271. Digital Circuits (4). Introduction to number systems, Boolean algebra, combinational logic, and the analysis and design of digital logic circuits. Formerly EET 371; student may not receive credit for both. Three hours lecture and two hours laboratory per week. Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to compute equivalents for numbers moving them between the binary, decimal, octal and hexadecimal number systems Demonstrate an ability to use Boolean algebra, truth tables, and Karnaugh maps to analyze and optimize digital circuits Demonstrate an ability to implement given digital circuit designs using combinational logic
Demonstrate an ability to use manufacturer's data sheets to select appropriate digital logic components and verify their proper operation Demonstrate an ability to communicate their development process, work, assumptions, and evaluations to their peers and instructor

EET 298. Special Topics (1-
6). May be repeated if subject is different.
EET 299. Seminar (1-5). May
be repeated if subject is
different.
EET 312. Basic Electronics
(4). Analysis of semiconductor devices and their application in power supplies, amplifiers, and control circuits. Three hours lecture and two hours laboratory per week. Course will be offered on on odd numbered years (Winter). Prerequisite: EET 221 and EET 221LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to construct and analyze Diode circuits.
Demonstrate an ability to construct and analyze Bipolar Junction Transistor (BJT) circuits.
Demonstrate an ability to construct and analyze Field-
Effect Transistor (FET) circuits.
Demonstrate an ability to design, assemble, and analyze voltage regulator circuits Demonstrate an ability to assemble and analyze voltage, current, and power amplifiers. Demonstrate an ability to communicate assumptions, results, and conclusions about technical information in a coherent and prescribed format.
EET 323. Active Linear Circuits (4). Analysis and design of operational amplifier circuits including amplifiers, comparators, active filters, controls, and instrumentation devices. Three hours lecture and two hours laboratory per week. Course will be offered on on odd numbered years (Spring). Prerequisites: EET 312 and MATH 172. Upon successful completion of this course, the student will be able to:
Design, analyze, and implement electronic circuits containing operational
amplifiers and other active linear devices.
Demonstrate an ability to design and construct multistage amplifiers and analyze their output.
Demonstrate an ability to analyze amplifiers frequency response.
Demonstrate an ability to explain the behavior of typical amplifier and comparator circuits using active linear devices.
Demonstrate an ability to use electronic test instruments and software tools to evaluate electronic circuits. Demonstrate an ability to execute an analog hardware development process (design, implementation, and verification).
Demonstrate an ability to communicate assumptions, results, and conclusions about technical information in a coherent and prescribed format.

## EET 325. Electrical

Networks (4). Introduction to continuous-time linear signals and systems. Topics include differential-equation models, convolution, and Fourier analysis. Formerly EET 313; student may not receive credit for both. Four hours of lecture per week. Course will be offered every year (Fall). Prerequisites: EET 221 and EET 221LAB and MATH 173. Upon successful completion of this course, the student will be able to:
Demonstrate an ability to use Ohm's law and Kirchhoff's voltage and current laws to develop resistive circuit equivalency models. Demonstrate an ability to Ohm's law and Kirchhoff's voltage and current laws to analyze circuits using mesh equivalencies.
Demonstrate an ability to Ohm's law and Kirchhoff's voltage and current laws to analyze circuits using node equivalencies.

Demonstrate an ability to analyze inductive transients and equivalent circuits. Demonstrate an ability to analyze capacitive transients and equivalent circuits. Demonstrate an ability to analyze initial, final, and firstorder circuits.
EET 332. Generation of Electrical Power (4). An introduction to the generation of electrical power. the economic considerations associated with power plant operation will be introduced as well as methods used to analyze three phase systems. Theory is re-enforced with field trips to power generation sites. Three hours lecture and two hours laboratory per week. Course will be offered on even numbered years (Winter).
Prerequisite: EET 221 and EET 221 LAB or permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to analyze the magnetics of motors, generators, and transformers.
Demonstrate an ability to analyze DC generators circuits. Demonstrate an ability to analyze ideal and practical transformers.
Demonstrate an ability to analyze single and three phase AC generators circuits. Demonstrate an ability to analyze single and three phase induction motors.
EET 343. Process Control
(4). Application of analog and digital controller principles to process control systems. Three hours lecture and two hours laboratory per week.
Prerequisites: EET 324 and IET 242.
Upon successful completion of this course, the student will be able to:
Develop an understanding of the fundamental mathematical and physical characteristics and rudimentary uses of standard mechanical sensors.

Acquire an understanding of the fundamental mathematical and physical characteristics and elementary uses of accepted optical sensors. Gain a basic understanding of the operation and uses of traditional final control elements.
Attain a basic understand of discrete-state control and the prevailing equipment used to carry out its processes. Gain an understanding of the long- established controller modes of operation. Introduced to the fundamental concepts of fuzzy logic and control.
EET 363. Lab View Applications (Put on reserve 9/16/15.) (1). An introduction to Lab VIEW instrumentation software. Techniques used to simulate instrumentation systems will be introduced. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
Upon successful completion of this course, the student will be able to:
Develop temperature sensor simulations using Lab VIEW Develop light sensor simulations using LabVIEW Develop speed sensor simulations using LabVIEW Develop motion sensor simulations using LabVIEW Develop control system simulations using LabVIEW
EET 372. Advanced Digital Circuits (4). Introduction to sequential logic, state machines, digital interfacing techniques and memory devices. Programmable logic devices introduced as time permits. Two hours lecture and four hours laboratory per week. Course will be offered every year (Spring).
Prerequisite: EET 271.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design, construct, and analyze sequential logic circuits. Demonstrate an ability to design, analyze, and implement
circuits using synchronous state machines.
Demonstrate an ability to design, analyze, and implement circuits using asynchronous state machines.
Explain the different types of semiconductor memory commonly used in digital systems.
Demonstrate an ability to use manufacturer's data sheets to select appropriate digital logic circuits.
Demonstrate an ability to communicate assumptions, results, and conclusions about technical information in a coherent and prescribed format.

## EET 373. Introduction to

 Embedded Programming (4).Introduction to embedded programming using C and
C++. Programming proficiency, algorithm development and hardware considerations in software design are emphasized. Formerly EET 370; student may not receive credit for both. Three hours lecture and two hours laboratory per week. Course will be offered every year (Fall). Prerequisites: CS 110 and MATH 154 or permission of instructor. Upon successful completion of this course, the student will be able to:
Demonstrate an ability to write a C language computer program to configure and control an embedded microcontroller. Demonstrate an ability to design software to solve technical problems. Demonstrate an ability to design verification software to verify, test, and debug program and hardware implementations. Demonstrate an ability to design and implement algorithms that allow users to communicate with the machine and get meaningful feedback from the machine. Demonstrate an ability to communicate assumptions, results, and conclusions about technical information in a
coherent and prescribed format.
EET 374. Microprocessors
(4). Study of microprocessor system components, functions, and programming methods using the assembly programming language. Formerly EET 375 ; student may not receive credit for both. Two hours lecture and four hours laboratory per week. Course will be offered every year (Fall). Prerequisites: CS 110 and EET 372.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design input/output systems by configuring, reading from, and writing to parallel ports. Demonstrate an ability manipulate data for use by the machine or by a user. Demonstrate an ability to design
instrumentation/measurement systems using analog-to-digital (A/D) converters. Demonstrate an ability to design a serial I/O communication system. Demonstrate an ability to design interrupt service routines to respond to user and hardware requirements.
EET 376. Advanced
Microprocessors (4). Study of microprocessor system configuration, design, integration of input and output devices, and program development in $\mathrm{C} / \mathrm{C}++$. Two hours lecture and four hours laboratory per week. Course will be offered every year (Winter). Prerequisite: EET 373 and EET 374.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design and implement a 16-bit microcontroller system by configuring peripheral ports to control analog and digital system operations. Demonstrate an ability manipulate data for use by the machine or user and optimize
the process in a 16-bit machine.
Demonstrate an ability to design and implement state machines using 16 -bit microcontroller multilevel interrupts and program space visibility (PSV) tables. Demonstrate an ability to design appropriate, serial, USB, and/or TCP/IP communication systems for machine and user interface. Demonstrate an ability to communicate their development process, hardware and software assumptions and outcomes, and test and verification process. EET 377. Advanced Robotics and Automation (4).
Advanced topics covering robotics in the automation industry. Two hours lecture and four hours lab per week. Course will be offered every year (Winter). Prerequisite: ETSC 242 and (ETSC 277 or CS 110).
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design, analyze, and implement LabVIEW into automation systems.
Demonstrate an ability to design, analyze, and program DaNI robots.
Apply advanced programming techniques to robotics control systems.
EET 396. Individual Study (1-6). May be repeated if subject is different.
EET 397. Honors (1-12).
Prerequisite: admission to department honors program.
EET 398. Special Topics (1-
6). May be repeated if subject is different.
EET 399. Seminar (1-5). May be repeated if subject is different.
EET 426. Advanced Electrical Network (4). Analysis of continuous-time linear time-invariant systems using Laplace transforms Topics include the forward and inverse Laplace transform, system response and stability,
transfer functions, and state variable modeling. Formerly EET 324, students may not receive credit for both. Four hours of lecture per week. Course will be offered every year (Winter).
Prerequisite: EET 325.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to analyze analog circuits using the Laplace transforms given time domain functions crated from given circuits. Demonstrate an ability to analyze analog circuits using the inverse Laplace transforms given s-domain functions. Demonstrate an ability to create time domain analog circuit models then applying Laplace transform methods to analysis of complete analog circuit solutions.
Demonstrate an ability to analyze circuit operations and characteristics using analog circuits transfer functions. Demonstrate an ability to analyze and optimize analog circuit designs by determining the poles and zeros of the circuits transfer function to evaluate their effect on the systems stability. Demonstrate an ability to develop state-variable models to analyze the transient and steady-state behavior of a circuit.
EET 433. Transmission and Distribution of Electrical Power (4). A study of the transmission and distribution of electrical power. Includes techniques used by electric utilities for the protection of generation equipment and transmission lines during switching of loads. Formerly EET 432, students may not receive credit for both. Three hours lecture and two hours laboratory per week. Course will be offered on even numbered years (Spring). Prerequisite: EET 332. Upon successful completion of this course, the student will be able to:

Demonstrate an ability to analyze electrical power transmission systems. Demonstrate an ability to analyze electrical power distribution systems. Demonstrate an ability to analyze protection techniques for electrical power transmission systems. Demonstrate an ability to analyze protection techniques for electrical power distribution systems. Demonstrate an ability to analyze the industrial and public safety techniques and equipment used by utilities in transmission and distribution systems.

## EET 444. Supervisory

Control Networks (4). An introduction Supervisory Control and Data Acquisition (SCADA), network interfacing techniques and data transfer between industrial controller systems. Prerequisite: EET 343 and EET 374.
Upon successful completion of this course, the student will be able to:
Understand network configurations and hardware requirements.
Configure networks and controllers to allow communication through serial and network interfaces. Configure and implement SCADA systems. Communicate assumptions, results, and conclusions about technical information in a coherent manner.
EET 452. Computer
Networks (4). A study of computer network protocols, topologies, and device configurations. Two hours lecture and four hours laboratory per week. Course will be offered every year (Spring). Prerequisite: EET 374.

Upon successful completion of this course, the student will be able to:
Describe LAN topologies including their operational characteristics.

Describe each OSI Model
Layer
Describe the purpose and
common protocols of the
TCP/IP Model Architecture
Layers
Compare the TCP/IP Model
Architecture Layers to the OSI
Model Layers
Demonstrate an ability to analyze control characteristics for TCP/IP Model protocols in
the Network Interface Layer
Demonstrate an ability to
analyze the operation of
TCP/IP Model Data Link
Layer protocols
Demonstrate an ability to
analyze the operation of
TCP/IP Model Transport Layer
protocols and their associated applications
Demonstrate an ability to analyze the operation of TCP/IP from system boot to data downloads Analyze Linux system file structures
EET 455. Electronic
Communications (4). An
introduction to electronic communications circuits. Two hours lecture and four hours laboratory per week.
Prerequisite: EET 312.
Upon successful completion of this course, the student will be able to:
Describe common analog communications modulation techniques.
Describe common digital modulation techniques. Explain the operation of mobile telephone systems.

## EET 475. Microcontrollers

(4). Use and programming of microcontrollers in the design and implementation of embedded controller systems. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of basic microcontroller operations.
Demonstrate an ability to write a basic startup program for a microcontroller given a specific setup.
Demonstrate an understanding of microcontroller ports.

Demonstrate an ability to configure a microcontrollers ports for a given set of characteristics. Demonstrate an ability to design and build an embedded controller application using a given microcontroller.
EET 477. Industrial Robotics
and Automation (4). An
applied study of Industrial automation design and practices utilizing industrial robots and PLCs. Two hours lecture and four hours laboratory per week. Course will be offered every year (Spring). Prerequisites: ETSC 241 and EET 377.
Upon successful completion of this course, the student will be able to:
Examine production line automation.
Design movements for industrial robot.
Defend a fully realized automated production line.
EET 487. Senior Project
Management (2). Research, planning, and conceptual section of a capstone analysis and design project. Collaborative group endeavors in cooperation with industry, community, or government entities are encouraged. Senior standing. Formerly EET 478; student may not receive credit for both. Two hours of lecture per week. Course will be offered every year (Fall). Corequisite: EET 487LAB. Upon successful completion of this course, the student will be able to:
Demonstrate an ability to research and analyze technical information to make project management decisions.
Demonstrate an ability to develop and propose a technical project. Demonstrate an ability to create and use a Gantt chart to monitor and manage a
technical project.
Demonstrate an ability to create and monitor a technical project budget.
EET 488. Senior Project
Quality (2). Development
section of a capstone analysis and design project where the creation of a prototype or method for the advancement of a concept takes place. Senior standing. Formerly EET 479, students may not receive credit for both. Two hours of lecture per week. Course will be offered every year (Winter). Prerequisite: EET 487. Corequisite: EET 488LAB. Upon successful completion of this course, the student will be able to:
Demonstrate an ability to
develop quality measures based on specifications. Demonstrate an ability use fundamental statistical concepts to construct and analyze control charts Demonstrate an ability to solve problems using basic quality improvement techniques. Demonstrate an ability to determine and analyze manufacturing process capabilities and implement improvements.

## EET 489. Senior Technical

 Presentations (2). Written and oral presentation section of a capstone analysis and design project where communication of technical concepts takes place. Four hours of laboratory per week. Course will be offered every year (Spring). Prerequisite: EET 488. Upon successful completion of this course, the student will be able to:Communicate effectively. Learn new concepts through independent research and study Show how their process meets the basic design specifications of their senior project. Meet the basic design components of a project. Document how a project time table that includes research, design, test, build, and documentation benchmarks.
EET 496. Individual Study
(1-6). May be repeated if subject is different.
EET 497. Honors (1-12).
Prerequisite: admission to department honors program.

EET 498. Special Topics (1-
6). May be repeated if subject is different.
EET 499. Seminar (1-5). May
be repeated if subject is
different.
EET 221LAB. Basic
Electricity Laboratory (1).
Basic Electricity Laboratory. Must be taken concurrently with EET 221. Two hours of laboratory per week. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Classify resisters, capacitors, and inductors by shape, size, and part makings.
Measure voltage, current, and resistance using a multimeter. Measure voltage, frequency, and time using an Oscilloscope.
EET 487LAB. Senior Project Management Laboratory (2). Laboratory section for senior project management. Must be taken concurrently with EET 487. Four hours of laboratory per week. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design a technical project. Demonstrate an ability to verify design requirements through simulation.
Demonstrate an ability to create a bill of materials for a technical project.
Demonstrate an ability to analyze and present data for review.
EET 488LAB. Senior Project Quality Laboratory (2). Laboratory section for senior project quality. Must be taken concurrently with EET 488. Four hours of laboratory per week. Course will be offered every year (Winter).
Prerequisite: EET 487LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to prototype a technical project.

Demonstrate an ability to analyze and test the project prototype.
EFC 210. Seminar (1). Discussion of field observation and program planning for prospective teachers. Prerequisite: prior completion of pre-admission observation, sophomore standing. Upon successful completion of this course, the student will be able to:
Begin using an electronic portfolio to maintain a record of their progress through the Teacher Preparation Program. Describe activities observed in the Pre-Admission Observation Experience as they relate to classroom management, methods of instruction, assessment, and diversity. Plan their academic coursework and experiences to graduation.

## EFC 250. Introduction to

Education (4). Introduction to teaching as career, foundations and overview of American public education, effective teachers, responsibilities of schools in democratic society, essential professional competences, preparation, and certification. Culturally anchored, and offers a framework of equity pedagogy. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student/teacher candidate will be able to:
Apply knowledge of how schools are governed at federal, state, local, school and classroom levels to identify possible avenues of action to address a current issue in education.
Describe the beliefs of the major schools of educational philosophy and psychology. Identify emerging personal ideology of education, including the influence of historical foundations, the purpose of schools, the role of teachers, the diversity of students, the dynamics of learning, and ways of knowing.

Identify personal characteristics in terms of the characteristics of effective teachers, and apply them to teaching and learning scenarios.
Develop and identify elements of and strategies to promote a culturally responsive and productive learning community using research, theory, observations and practice. Apply theories of culture, learning and development to better understand their own identity and that of peers, professionals, family members and future students.
Identify bias and discrimination, and practice critical reflection to address
biases or assumptions that interfere with learning or teaching.
Apply concepts related to learner differences and development to understand and identify strategies to holistically support students.
EFC 298. Special Topics (16). May be repeated if subject is different.
EFC 299. Seminar (1-5). May be repeated if subject is different.
EFC 310. Orientation to
Teaching (3). Teaching as a career and essential features of preparation. Study of the teacher's role and function in the school; characteristics of good teachers; preparation for professional competencies and certification; the American public school system; and the responsibilities of schools in a democratic society. Co- or prerequisite: EFC 210. Upon successful completion of this course, the student will be able to:
Articulate the beliefs of the major schools of educational philosophy and psychology. Articulate their emerging personal ideology of education, including the purpose of schools, the role of teachers, the diversity of students, the dynamics of learning, and the knowledge of most worth.

Reflect on their personal characteristics in light of the characteristics of effective teachers, and analyze teaching/learning scenarios using the language of the profession. Outline the basic trends of educational history. Describe the structure of public education in the state of Washington, including the legal bases from the constitution through the EARLs, and the legislative and administrative agencies involved with education. Write in a professional manner.

## EFC 315. Educational

Assessment (3). The
assessment/planning/instructio
n cycle. Standards-based assessment. Reliability, validity, bias. Basic statistics used in test construction and interpretation. Construction of classroom tests: multiplechoice, short answer, essay, etc. Performance assessment, portfolio assessment, affective assessment. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program or Instructional Foundations. Pre- or Corequisite: EFC 320.
Upon successful completion of this course, the student will be able to:
Apply multiple diagnostic, formative, summative, and self-assessment strategies to assess student learning. Use assessment results to determine effectiveness of instruction.
Align instruction and assessment with content standards and Common Core State Standards (CCSS). EFC 320. Multicultural Education (3). Exploration of marginalized groups and the implications for change in education. Examination of foundational elements of and approaches to Multicultural

Education as the underpinning to the development of cultural competence. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 with a grade of C or higher and application to the Teacher Certification Program or Instructional Foundations major and valid WSP/FBI fingerprint clearance and liability insurance. Pre- or Corequisite: EFC 250 OR (EFC 210 AND EFC 310) with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Demonstrate the knowledge, skills, and dispositions necessary to participate in a broad spectrum of culturally responsive and relevant educational practices. Identify and use effective research-driven instructional techniques, strategies, and planning within the context of various racial, ethnic, cultural, socioeconomic, gender, and linguistic student populations. Integrate students' culture into classrooms in a responsible, respectful, and relevant way. Reflect on and critically analyze their own attitudes and beliefs to challenge negative assumptions and stereotypes about students.

## EFC 330. Field Experience

(2). Laboratory experience for prospective teachers. Opening of school, professional relationships, school/community relationships, school district organization, instructional support, resource services. Students assigned in offcampus schools for two weeks before fall quarter or during quarter. Grade will either be S or U. Permission of department. Course will be offered every year (Fall, Winter, Spring). Prerequisites: PSY 314 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program or

Instructional Foundations and valid WSP/FBI fingerprint clearance and liability insurance. Pre- or Co-requisite: EFC 320 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Assist in preparing for the beginning of a new instructional year or quarter. Participate in selective instructional and student related activities within the assigned school and attend professional meetings. Observe and record the professional relationships among administrators, teachers, other certified and non-certified personnel, students and their parents.
Observe and record the various classroom management procedures used by classroom teachers.
Observe and describe the different teaching methods used by classroom teachers. Observe and record information about the use of Constructivism in PK12 classrooms. Describe and record the organizational structure of the district, particularly as it relates to educational decisionmaking after discussion with the cooperating teacher and a building administrator. Describe community resources and services available to the classroom teacher after discussion with the cooperating teacher and a building administrator.
Identify and record aspects of the school's curricular and extra-curricular programs that relate to the community served by the school after discussion with the cooperating teacher and a building administrator. Reflect on experience by observation and interaction in a PK-12 setting, including curriculum.

## EFC 340. Methods of

Instruction (3). Introduction to basic instructional methods aligned with standards and
assessment for classroom.
Development of a
comprehensive curriculum aligned with Teacher Performance Assessment (edTPA). Methods appropriate for subject and grade level in lab and field experience. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and EFC 320 and [EFC 250 OR (EFC 210 and EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program or Instructional Foundations. Pre- or Corequisites: EFC 315 and EFC 330 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Plan and implement instruction based on learner characteristics and context of the school and community. Describe the basic tenets of multiple learning theories, typical developmental progress from birth through adolescence, and how socialized and innate individual differences and environment affect learning. Apply the basic tenets of multiple learning theories and develop strategies that are developmentally and situationally appropriate in design of effective instruction, by developing and aligning curriculum with content standards and Common Core State Standards (CCSS). Plan and implement effective instruction aligned with content standards, CCSS standards, and assessments and apply to learning theories using the format in Teaching Performance Assessment (edTPA).
Design and develop a repertoire of instructional choices from a broad spectrum of research-based techniques to maximize the learning of all students.
EFC 350. Classroom
Management (3).
Development of
philosophical values, style, confidence, assertiveness, decision-making skills, strategies, and interventions for creating an effective classroom environment and managing student behavior. Development of a comprehensive management plan for first year of teaching. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and EFC 320 and [EFC 250 OR (EFC 210 AND EFC
310)] with a grade of C or higher and full admission to the Teacher Certification Program. Pre- or Co-requisites: EFC 315 and EFC 330 and EFC 340 and EFC 416 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Plan and implement instruction and manage the classroom environment based on learner characteristics and the context of the school and community appropriate for content area and grade level.
Design a classroom seating chart and develop daily procedures for an orderly environment appropriate for content area and grade level. Develop and articulate effective classroom management theoretical constructs and strategies that promote student learning; encourage collaboration, cooperation, positive social interaction; teach conflict resolution skills; encourage individual and group motivation appropriate for content area and grade level. Develop and articulate a behavior management plan including rules, consequences and rewards, and methods of communicating plan with stakeholders. Identify and articulate effective management strategies from on published teaching videos and previous practica experiences. Summarize rubric requirements for edTPA in content area and develop effective classroom
management strategies for each edTPA Task.
Synthesize and refine
assignments to create an individualized final classroom management plan.

## EFC 396. Individual Study

(1-6). May be repeated if subject is different.
EFC 397. Honors (1-12).
Prerequisite: admission to department honors program.
EFC 398. Special Topics (1-
6). May be repeated if subject is different
EFC 399. Seminar (1-5). May
be repeated if subject is different.
EFC 416. Educational
Technology (3). Concepts and resources related to appropriate and effective integration of technology and media in school settings. CS 101 or IT
101 recommended prior to enrollment. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and EFC 320 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program or Instructional Foundations. Pre- or Co-requisites: EFC 315 and EFC 330 and EFC 340 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Incorporate into instruction current education technology standards to enhance student learning and develop critical thinking skills.
Incorporate into instruction current education technology standards to model and teach digital citizenship.
Incorporate into instruction current education technology standards to inform instruction and make other educational decisions
Develop, analyze and evaluate lessons that involve students collaborating with others to solve problems or create products.
Develop, analyze, and evaluate lessons through field
experience that demonstrate the safe, legal, and responsible use of technology.
EFC 440. Education Law (3). Major legal issues confronting educators, including student and teacher rights, due process, torts, current laws, equity, and the identification and reporting of child abuse. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY 314 and EFC 315 and EFC 320 and [EFC 250 OR (EFC 210 AND EFC 310)] with a grade of C or higher and full admission to the Teacher Certification Program. Pre- or Co-requisites: EFC 340 and EFC 350 and EFC 416 and EDSE 302 and (EDBL 401 OR EDBL 430) with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Articulate and apply policies, laws, and court decisions to common situations in the K-12 public educational setting. Articulate and apply laws regarding students' and teachers' rights and responsibilities, and legal duties and accountability pertaining to equal opportunity for all students.
Articulate and apply policies regarding copyright law; due process; educational equity; tort liability; identification and reporting of child abuse; and school funding.
Identify ethical and legal issues common to all education systems in the US.
EFC 460. Pedagogy Capstone
(2). Culminating pedagogical experience for the secondary education major completed the quarter preceding student teaching. Synthesis and application of teacher preparation coursework and development of edTPA Task 1 in the assigned classroom placement for student teaching. Course will be offered every year (Fall, Winter, Spring).
Prerequisite: admission to
Teacher Certification Program
and EFC 250 and EFC 315 and EFC 320 and EFC 340 and PSY 314 with a C or higher and EFC 330 with an S grade, and current WSP/FBI fingerprint clearance, and liability insurance. Pre or Corequisite: EDBL 401 and EDSE 302 and EFC 350 and EFC 416 and EFC 440. Upon successful completion of this course, the student/teacher candidate will be able to: Develop a timeline for completing requirements for the edTPA state assessment and Student Teaching. Complete the edTPA Context for Learning from the content area edTPA Handbook based on the assigned classroom placement for Student Teaching and write a letter to the parents.
Analyze and evaluate content curriculum and determine topics for lessons to teach in the assigned classroom. Identify appropriate lesson plans applicable for the edTPA and during Student Teaching. Analyze and evaluate the content area edTPA Handbook and develop Task 1, Planning, Instruction, and Assessment. Analyze, synthesize, and evaluate various instructional models and assessments, and articulate a culturally anchored framework of equity pedagogy to the assigned classroom. Analyze and synthesize the personal classroom management plan and articulate effective strategies for a culturally based, equitable, and well-managed, orderly learning environment for the assigned classroom. Develop cogent questions for interviewing the cooperating teacher in assigned classroom and reflect on what is learned. Analyze, synthesize, and evaluate learning based on preparation program as a demonstration and articulation of readiness to Student Teach.
EFC 470. Student Teaching Secondary (14).
Culminating field experience to demonstrate competence by

Student Teaching a full quarter in a major endorsement area secondary classroom. Includes 20 hours of seminar designated by the university supervisor. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring). Prerequisites: PSY 314 and (EFC 250 or (EFC 210 and EFC 310) and EDSE 302 and (EDBL 401 or EDBL 430) and EFC 315 and EFC 320 and EFC 330 and EFC 340 and EFC 416 and EFC 350 and EFC 440 and EFC 460 and Full admission to the Teacher Certifcation Program and valid WSP and FBI fingerprint clearance and liability insurance and completed Student Teacher Application and stated requirements. Upon successful completion of this course, the student will be able to:
Construct, implement, and assess a curriculum that is coherent and aligned with state standards.
Make appropriate instructional choices from a broad spectrum of techniques to maximize the learning of all students.
Plan and implement instruction based on learner characteristics and the context of the school and community.
Demonstrate professional and ethical responsibilities, relevant law and policy requirements, and educational foundations.
Participate in and reflect productively on multiple and diverse instructional field experiences.
EFC 480. Student Teaching
(16). Teacher candidates must demonstrate their competence by student teaching a full quarter in their major endorsement area. Includes 20 hours of seminar at a time and place designated by the university supervisor. See
Student Teaching
Requirements in this catalog, and the Student Teaching Handbook for other requirements and policies. SCED 325 may be substituted
for EFC 350, and SCED 487, may be substituted for EFC 416. Grade will either be S or U. Prerequisites: admission to the Teacher Certification Program, and completion of the Professional Education Program with grades of C or higher, and current WSP/FBI fingerprint clearance . Upon successful completion of this course, the student/teacher candidates will be able to: Construct, implement, and assess a curriculum that ill coherent and aligned with state standards.
Make appropriate instructional choices from a broad
11pectrum of techniques in order to maximize the learning of all students.
Plan and implement instruction based on learner characteristics and the context of the school and community.
Understand teaching as a profession, including professional and ethical responsibilities, relevant law and policy, and educational foundations.
Participate in and reflect productively on multiple and diverse instructional field experiences.
EFC 491. Workshop (1-6).
May be repeated for credit.
Grade will either be S or U .
EFC 496. Individual Study (1-6). May be repeated if subject is different.
EFC 497. Honors (1-12).
Prerequisite: admission to department honors program.
EFC 498. Special Topics (1-
6). May be repeated if subject is different.
EFC 499. Seminar (1-5). May be repeated if subject is different.
ELEF 212. Introduction to Teaching in Elementary Schools (3). Study of the teacher's role and function in elementary schools; characteristics of good teachers; preparation for professional competencies and certification; the American public-school system; and the legal responsibilities of schools
in a democratic society. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Articulate beliefs of the major schools of educational philosophy and psychology. Articulate an emerging personal educational ideology including the purpose of schools, role of teachers, diversity of students, dynamics of learning, and what knowledge is worthy of learning.
Reflect and articulate personal characteristics in terms of effective teachers, analyze teaching/learning scenarios using the language of the profession.
Analyze and evaluate trends in educational history and their influences on modern educational laws and practices. Analyze the structure of public education in WA state, legal basis, and legislative and administrative agencies involved in education. Articulate daily expectations and routines of teachers and students through field experience including appropriate written and verbal communication, instructional decisions based on standards, learner needs, and overall management of a classroom.
ELEF 322. Culturally Responsive Teaching (3). Exploration of marginalized groups and implications for change in the educational setting. Examination of foundational elements of and approaches to multicultural education as the underpinning to the development of cultural competence. Course will be offered every year. Course will
not have an established scheduling pattern.
Prerequisites: ELEF 212 and
ELEM 323 and PSY 314 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Develop a philosophy statement reflecting the need for and practice of culturally responsive teaching. Critically analyze personal attitudes and beliefs to challenge negative assumptions and stereotypes about students. Create a positive learning atmosphere for all students while taking into account their family and community structures.
Engage students with support for maximum learning and a genuine desire to assure that all students learn.
Communicate with families in an appropriate and culturally sensitive manner.
Participate in a classroom community mindful of student engagement, learning, and positive relationships. Describe how teachers connect learning to students (particularly those with special and diverse needs). Identify and utilize effective research-driven instructional techniques, strategies, and planning within the context of various racial, ethnic, cultural, socioeconomic, gender, and linguistic student populations.

## ELEF 324. Educational

 Technology for Elementary Classrooms (2). Concepts and resources related to appropriate and effective integration of technology and media in elementary school settings. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 322 andvalid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Incorporate into instruction current education technology standards to enhance student learning and develop critical thinking skills
Incorporate into instruction current education technology standards to model and teach digital citizenship.
Incorporate into instruction current education technology standards to inform instruction and make other educational decisions
Develop, analyze, and evaluate lessons that create a product using technology to solve problems and collaborate with others.
Develop, analyze, and evaluate lessons through field experience that demonstrate the safe, legal, and responsible use of technology
ELEF 332. Instructional Design and Assessment (5). Introduction to standards-based instructional planning, design, methodology, evaluation, assessment in a classroom for content, grade level, and individual learners. Teaching learning, assessment cycle; construction of various assessments; use of reliability, validity, bias, data-driven instructional decisions. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 322 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.

Upon successful completion of this course, the student will be able to:
Articulate how learning theories, developmental progression, socialized and innate differences impact learning.
Plan and implement instruction based on WA state and national standards, learner characteristics, and context of school and community. Create lesson plans incorporating a broad spectrum of instructional methods differentiating instructional strategies based on learner characteristics through field experience.
Align instructional methods and assessments with standards.
Design multiple diagnostic, formative, summative, and self-assessment strategies to assess and evaluate student learning.
Utilize multiple diagnostic, formative, summative, and self-assessment strategies to assess and evaluate student learning.
Use assessment results to reflect and evaluate instructional effectiveness and analyze reliability, validity, and bias of assessments.

## ELEF 426. Ethics and

 Education Law for Elementary Teachers (3). Major legal issues confronting educators, including students and teacher rights, due process, torts, and the identification and reporting of child abuse. History of legal cases and issues. Exploration of ethical practices for educators. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 472 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled.Upon successful completion of this course, the student will be able to:
Identify ethical and legal issues common to all education systems in the US. Apply policies, laws, and court decisions to common situations in the K-12 public educational setting.
Apply policies regarding students' and teachers' rights and responsibilities, teachers' legal duties and accountability pertaining to equal opportunity for students.
Apply policies regarding copyright law; due process; educational equity; tort liability; identification and reporting of child abuse; and school funding.
ELEF 472. Classroom Management for Elementary
Teachers (3). Development of philosophy, values, confidence, assertiveness, and decisionmaking skills based on effective research-based strategies in classroom management. Development of a comprehensive classroom management plan for first year teaching. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 332 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Formulate a rationale for effective research based classroom management strategies using a specific school context, learner characteristics, content, and grade level.
Apply effective classroom management strategies that promote student learning, encourage collaboration, cooperation, positive social
interactions, conflict management resolution, individual and group motivation, behavior interventions, and individual learner needs.
Practice, analyze and evaluate classroom management in field experience for effective and ineffective management strategies in practice. Create a personal, detailed action plan of classroom management based on effective, research-based practices.
ELEF 492. Practicum I: Instructional Design (1). An opportunity for education students to implement and assess instructional activities within an elementary classroom. A minimum of 30 observation/engagement hours at assigned school(s) and participation in weekly group discussion is required. Grade will either be $S$ or $U$. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 322 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEF 332.

Upon successful completion of this course, the student will be able to:
Engage in reading assessment and instruction.
Engage in writing assessment and instruction.
Apply educational technology skills to better serve a community/school/classroom.

## ELEF 493. Practicum II:

Differentiation (2). An
opportunity for education students to identify
differentiation practices within an educational setting. A minimum of 60
observation/engagement hours at assigned school(s) and participation in weekly group
discussion is required. Grade will either be S or U . Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEF 472.

Upon successful completion of this course, the student will be able to:
Identify differentiation practices that address accommodation. Identify differentiation practices that address diverse linguistic development. Identify differentiation practices that address diverse physical abilities. Identify differentiation practices that address specialized health needs or considerations.
Apply differentiation practices in context.
Implement classroom management strategies.

## ELEF 495. Practicum IV:

 Professional Engagement (2). An opportunity for education students to implement and assess integrated instructional activities within the context of service. A minimum of 60 observation/engagement hours at assigned school(s) and participation in weekly group discussion is required. Grade will either be S or U . Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEM 471.Upon successful completion of this course, the student will be able to:
Engage in math assessment and inquiry-based instruction. Identify elements of an ethical classroom.
Design and implement a service-oriented contentintegrated learning project to benefit the community/school.

## ELEM 292. Lab I:

Introduction to the Teaching
Profession (1). An opportunity
for beginning education
students to develop a holistic understanding of an elementary school, beyond a classroom. A minimum of 30
observation/engagement hours at assigned school(s) and participation in weekly group discussion is required. Grade will either be $S$ or U . Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting
Database and be valid throughout the quarter enrolled. Co-requisite: ELEM 323 and ELEF 212.
Upon successful completion of this course, the student will be able to:
Explain how support functions including but not limited to
library, cafeteria, and playground impact academic preparation.
Investigate support programs including but not limited to physical education, the arts, and therapeutic services. Observe interactions (adultchild and child-child) beyond the classroom.
Investigate, home and
community, learning
connections and opportunities to school.
Read aloud to a small group of children.
ELEM 298. Special Topics
(1-6). May be repeated if subject is different.

ELEM 299. Seminar (1-5).
May be repeated if subject is different.

## ELEM 321. Children's

Literature (3). The genres of literature suited to children in grades 1-6 are reviewed, including those from diverse backgrounds. Attention to how to use literature as the basis for literacy development across
English Language Arts is emphasized. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Plan for how reading, writing, speaking, listening, visualizing, viewing, and thinking are integrated and are developmental processes. Examine a wide range of texts (including but not limited to poetry, realistic fiction, historical fiction, international, global, multicultural, informational, biographical, traditional, fantasy) suitable for children and young adult readers
Examine a wide range of texts represented and authored by a range of cultures and ethnicities, and representing both female and male protagonists and authors.
Examine the elements of literature within the texts read. Examine the elements of genre that affect the comprehension of text.
Examine the influence of media on culture, literacy, people's actions, and communication.
Implement culturally, relevant, research-based lessons in literacy.
Explain how teachers connect learning to students
(particularly those with special and diverse needs).
Formulate an understanding of how individual, social, and cultural factors influence interpersonal communication. Participate in a classroom community mindful of student engagement, learning, and positive relationships.
ELEM 323. Learners and the Learning Environment (4).
This course bridges concepts of social justice, classroom management, educational psychology, and pedagogy to explore the complexities of creating a positive and productive learning community. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEF 212.

Upon successful completion of this course, the student will be able to:
Apply major concepts, theories, and research related to typical and atypical development of the whole child and young adolescent to include cognitive, social, emotional, linguistic, creative and physical development. Identify how home environment and community factors: cultural backgrounds, ethnicity, language development, socioeconomic status (SES), values about education, gender, and disabilities influence the learning of students. Identify the needs of highpoverty and at-risk children and adolescents. Identify ways to establish rapport with individual students that supports a personalized learning environment through respect and caring.

Discuss approaches for creating a learning climate that encourages trust and mutual support among students. Identify strategies to build student capacity for selfconfidence, self-advocacy, self-directed learning and decision-making. Plan for instruction that supports full participation and engagement by all learners, including marginalized students.
Plan classroom norms and expectations that support a safe, positive learning climate for all.
Manage student behavior fairly and equitably.
Plan effective and orderly classroom procedures, including use of classroom materials, transitions, and behavioral interventions. Discuss ways to involve students' families in the learning community by establishing effective two-way communication and designing appropriate and culturally responsive learning environments
ELEM 325. Integrating the
Arts (3). This course develops knowledge and skills to integrate the arts (i.e., dance, drama/theatre arts, music and visual arts) into elementary curricula. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in
OSPI's Fingerprinting
Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Explain how dance, music, theatre, and visual arts shape and reflect culture and history. Integrate to the curricula various visual and performing arts across cultures, artists, and time frames.

Demonstrate the thinking skills used in the creation, communication of, and responding to the visual and performing arts.
Demonstrate the connections the arts have to other disciplines, cultures, life, and work.
Demonstrate how to access the support of the visual and performing arts through the school, district, community, and region.
Formulate an understanding of how individual, social, and cultural factors influence interpersonal communication, academic, social/emotional development.
Implement culturally, relevant, research-based lessons in the arts.
Participate in a classroom community mindful of student engagement, learning, and positive relationships.
Explain how teachers connect learning to students (particularly those with special and diverse needs).
ELEM 331. Foundations of
Teaching Literacy (3).
Designed to prepare prospective elementary teachers to teach literacy in the classroom. Processes and products of the literacy act, methods and materials, and factors that affect literacy are covered. Course will be offered every year. Course will not have an established scheduling
pattern. Prerequisites: ELEF
212 and ELEM 321 and ELEM 323 and PSY 314 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Explain how reading, writing, speaking, listening, visualizing, viewing, and thinking are integrated and are developmental processes.

Explain how semantics, syntax, morphology, and phonology are integral to literacy processes.
Summarize the fundamentals of first and second language acquisition and development. Examine how the linguistic/rhetorical patterns of other languages and dialects affect the written and oral expression of diverse learners. Differentiate literacy practices upon learners' language background and individual needs.
Plan instructional progression for emergent/early literacy. Articulate the components of phonemic awareness and phonics.
Implement culturally-relevant, research-based lessons in word study.
Identify how individual, social, and cultural factors influence interpersonal communication.

## ELEM 333. Inclusive

Teaching (3). Introduce effective teaching strategies and strategies for adapting standard instruction to meet the needs of a range of students found in the typical elementary education classroom, including those with exceptionalities and multicultural heritages. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 322 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Apply knowledge of development and learning to provide meaningful and challenging learning experiences for individuals with exceptionalities. Create strategies for safe, inclusive, culturally responsive learning environments so that
individuals with
exceptionalities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination.
Access general and specialized curricula to individualize learning for individuals with exceptionalities.
Utilize multiple methods of assessment and data sources in making educational decisions. Select, adapt, and utilize a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities. Recognize a classroom community that fosters student engagement, learning, and positive relationships. Participate in a classroom community mindful of student engagement, learning, and positive relationships.

## ELEM 341. Reading

## Assessment and Instruction

(4). The use of assessment of literacy skills and processes that drive instruction, as well as content and methodology of vocabulary development, fluency, word study, and comprehension are covered. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEM 331 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Integrate reading, writing, speaking, listening, visualizing, viewing, and thinking as developmental processes. Select and implement a wide range of reading assessment tools.
Interpret assessment results to make instructional decisions based on assessment data, including those with different
developmental, cultural, and linguistic needs. Implement research-based lessons in fluency, comprehension, word study, vocabulary.
Implement research-based literacy strategy lessons using a variety of culturally relevant, print and non-print, literary and expository texts.
Explain how teachers connect learning to students (particularly those with special and diverse needs).
Explain the variability of reading levels of students in the same grade and within a student across the essential components of reading. Describe how individual, social, and cultural factors influence interpersonal communication.
Participate in a classroom community mindful of student engagement, learning, and positive relationships.

## ELEM 342. Teaching

 Elementary Science Inquiry(4). Methods and pedagogical strategies that develop children's foundational concepts and principles across STEM domains. Candidates will incorporate Next Generation Science Standards and research based practices for developing, implementing, and assessing inquiry lessons in elementary classrooms. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 472 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Apply the developmental and social foundations of learning as they relate to science and engineering practices by developing and teaching
elementary level lessons using the learning cycle.
Engage in instruction that integrates practices, crosscutting concepts, and disciplinary core ideas (NGSS).
Design, implement, and assess age-appropriate lessons aligned to standards.
Integrate science lessons with other subjects, including literacy, mathematics, and appropriate technology. Develop effective questioning skills and discourse moves in order to guide students in hands-on/minds-on exploration of science.
Apply and communicate safety precautions and procedures relative to science investigations (e.g., student eye protection, safe storage of chemicals, and equipment care and maintenance), as well as demonstrate responsible use and disposal of live organisms according to Washington State law.

## ELEM 351. Writing

Assessment and Instruction
(4). Designed to prepare prospective elementary teachers to assess/teach language arts in the classroom. Processes and products of writing, reading, speaking, listening, visualizing, and viewing instruction, including the integration across content areas are emphasized. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEM 331 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Integrate reading, writing, speaking, listening, visualizing, viewing, and thinking as developmental processes.

Examine the writing process, its components, the effective traits, and its recursive, interactive, and collaborative nature.
Appraise how purpose, audience, perspective, and mode shape writing. Implement strategies for finding, selecting, refining topics for writing research projects.
Explain how teachers connect learning to students (particularly those with special and diverse needs). Implement culturally, relevant, research-based lessons in English/Language Arts. Describe how individual, social, and cultural factors influence interpersonal communication. Participate in a classroom community mindful of student engagement, learning, and positive relationships.
ELEM 353. Teaching Elementary Social Studies
(4). Examines the structure/content of K-8 Social Studies curriculum. Identify and practice research-based instructional approaches across the social studies disciplines.
Emphasis will be placed on strategies to engage young learners in participatory citizenship. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: ELEF 212 and ELEM 323 and PSY 314 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Analyze social studies standards for the developmental level of elementary students.
Facilitate a variety of classroom discussion formats.

Create learning environments where students practice skills of social studies inquiry. Create learning environments which involve students in civic engagement and decision making.
Identify and use effective formative assessment methodologies across the disciplines of the social studies.
Access and develop classroombased assessments to assess social studies content knowledge and civic behaviors. Create learning environments which engage students with global issues (e.g. sustainability, climate, conflict, economic patterns, global health, cause and effect, etc.). Utilize Washington State required tribal sovereignty curriculum.

## ELEM 392. Lab II: Culture

 and Society (1). Anintroduction to culture and society relative to education, emphasizing learning at home and within the community. A minimum of 25 school, and 5 community,
observation/engagement hours, and participation in weekly group discussion is required. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEF 322.

Upon successful completion of this course, the student will be able to:
Identify personal values and the values of individual families.
Engage in community-based learning opportunities. Differentiate between child/family-centered and school-centered approaches to learning collaboration. Evaluate observed familyfocused activities (conferences,
open house, special activities, child performances). Explore social service agencies that serve families. Identify strengths-based approaches to working with children and their families.
ELEM 396. Individual Study
(1-6). May be repeated if subject is different.
ELEM 397. Honors (1-12).
Prerequisite: admission to department honors program.
ELEM 398. Special Topics
(1-6). May be repeated if subject is different.
ELEM 399. Seminar (1-5). May be repeated if subject is different.

## ELEM 443. Teaching in

Linguistically Diverse
Classrooms (3). Foundational background in second language learning practices to educate linguistically diverse students. The basics of sheltered instruction for K-8 settings are introduced. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 332 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Identify second language acquisition theories and principles to inform instructional decisions. Use sheltered instruction methodology to equalize access to grade-level academic content experiences of linguistically diverse students. Utilize language acquisition guidelines to assist in making appropriate modifications to learning activities.
Participate in a classroom community mindful of student engagement, learning, and positive relationships.

Describe how teachers connect learning to students
(particularly those with special and diverse needs).
ELEM 451. Teaching
Elementary Mathematics
Early Grades (3). Focus on research based developmental practices in teaching and learning mathematics in early elementary
grades. Pedagogical strategies, curricular development, and content delivery for deep foundational mathematical development. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisites: Full admission to the Teacher Certification
Program and ELEF 472 and
MATH 164 and MATH 226 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Explain how mathematical learning occurs in developmentally predictable progressions across all math content domains.
Identify key milestones in the developmental progression of each of the math content domains of mathematical learning in the early elementary grades. Align instruction with state/national content and mathematical practice standards.
Select, design, and enhance curriculum materials/learning tasks that support the developmental progression of mathematical learning, across all domains, at the early elementary grades. Adapt, enhance, and implement learning tasks for the early elementary grades that embed mathematical practices in the instructional process and deepen conceptual understanding.

Use a variety of mathematical models and instructional strategies (technology and manipulatives) in order to connect mathematical concepts to real problems and experiences of the early grade elementary learners. Present early grade mathematical concepts using multiple representations (e.g., numerical, graphical, analytical, and contextual). Evaluate mathematics curricular materials and resources for the early elementary grades, based upon research based best practices, developmental appropriateness, and appropriateness for learner population.
Design and implement learning tasks that emphasize mathematical discourse as a significant support to and function of conceptual understanding. Utilize different methods of counting to teach a conceptual understanding of cardinality.

## ELEM 452. Teaching Elementary Mathematics

Upper Grades (4). Focuses on research based practices in teaching/learning mathematics in the upper elementary grades. Content includes pedagogical strategies, curricular development, and content delivery for deep foundational mathematics construct development and application. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEM 451 and MATH 164 and MATH 226 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student/teacher candidate will be able to:
Design and adapt
developmental learning
progressions, including
conceptual and procedural milestones and common misconceptions, based on state/national standards within each upper elementary content domain.
Adapt and enhance learning tasks for upper elementary grades by embedding mathematical practices to deepen students understanding of connections between procedures and conceptual understanding. Use a variety of mathematical models and instructional strategies (technology \& manipulatives) to design and enhance lessons that deepen student conceptual understanding using problem solving.
Evaluate mathematics curricular materials and resources for the upper elementary grades, based upon research based best practices, developmental appropriateness, and appropriateness for differentiated learner population. Integrate discourse into learning activities and explain how language will be used to guide students in mathematical problems solving, argumentation, literacy, and deep conceptual understanding. Represent proportional relationships using tables, graphs, equations, diagrams, mathematical models, and verbal descriptions.
Apply conceptual understanding in analyzing and solving real world problems that require the use of ratios, rates, proportions, and scaling and explain connection to proportional relationships in geometry, measurement, statistics, probability and function.
Utilize and explain arithmetic operations and their properties of integers, rational, real numbers, and complex numbers using standard and alternative algorithms. Analyze, extend and generalize patterns both geometrically and algebraically. They will write
both explicit and recursive definitions for generating a sequence.
ELEM 471. Elementary
Education Capstone (2)
Elementary teacher candidates will explore interdisciplinary instruction and design standards-based unit plans that incorporate best teaching practices for specific teaching assignments. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEM 494 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled.
Upon successful completion of this course, the student will be able to:
Create learning segments that support diverse student learning within and across content areas
Create learning activities that utilize research-based practice and on-going reflection on instruction.
Design learning targets that align with state standards in order to foster critical thinking. Utilize technology effectively to build a deeper understanding of learning theories and best practices.
Design and implement a wide range of assessment strategies to inform instruction and support student learning within and across academic content areas.
Modify assessment tools to accommodate students with exceptional needs. Participate in a classroom community mindful of student engagement, learning, and positive relationships.
Describe how teachers connect learning to students (particularly those with special and diverse needs).
ELEM 494. Practicum III:
Inquiry-Based Learning (2).

An opportunity for education students to implement and assess inquiry-based instructional activities within an elementary classroom. A minimum of 60 observation/engagement hours at assigned school(s) and participation in weekly group discussion is required. Course will be offered every year. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisites: Full admission to the Teacher Certification Program and ELEF 493 and valid WSP/FBI fingerprint clearance is required for this course. The clearance must appear in OSPI's
Fingerprinting Database and be valid throughout the quarter enrolled. Co-requisite: ELEM 342 and ELEM 452.
Upon successful completion of this course, the student will be able to:
Engage in math assessment and inquiry-based instruction. Engage in science assessment and inquiry-based instruction.
ELEM 496. Individual Study (1-6). May be repeated if subject is different.
ELEM 497. Honors (1-12).
Prerequisite: admission to department honors program. ELEM 498. Special Topics (1-6). May be repeated if subject is different.
ELEM 499. Seminar (1-5).
May be repeated if subject is different.
EMS 245. Advanced First Aid and Emergency
Response (3). This course will help students identify hazards in an emergency situation and enable them to administer principles of emergency first aid care until more advanced medical providers arrive. An AHA certification can be achieved from this course. Upon successful completion of this course, the student will be able to:
Identify hazardous emergency situations and establish security.

Provide and prioritize care for traumatic injuries and illnesses among patients of multiple age groups.
Apply principles of EMS in special conditions such as extrication, hazardous exposure, and weapons of mass destruction.
Apply principles of anatomy, physiology, pathophysiology, kinematics, life-span development, and therapeutic communication techniques in the assessment and management of emergency patients.
Perform immediate life-saving interventions to management patients with compromise of the airway, breathing, and/or circulation.
Demonstrate the skills necessary to sustain a patient's life using limited resources.
EMS 247. Wilderness
Emergency Care (2). This course provides lecture and practical skills instruction on the basic elements of emergency medical care in a wilderness or otherwise austere environment. It contains content that is supplemental to EMS 245. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Define the goals, applicability, and limitations to wilderness emergency care. Demonstrate the proper wilderness emergency care patient assessment, including the head-to-toe examination.
Perform the complete
SAMPLE history-taking process for patients in the wilderness setting in conjunction with the physical examination.
Translate the subjective findings from the historytaking process and the objective findings from the patient assessment into appropriate SOAP notes. Explain the essential aspects of each of the commonly encountered wilderness
medical and trauma emergencies.
Explain the essential aspects of each of the commonly
encountered wilderness
medical and trauma emergencies.
List the criteria inherent to the evacuation of a patient from a wilderness environment. Demonstrate how to effectively treat, package, and evacuate a patient from the remote wilderness environment. Demonstrate how to effectively treat, package, and evacuate a patient from the remote wilderness environment. Demonstrate how to effectively treat patients suffering from heat, cold, closed blunt force trauma, drowning, envenomation, fracture, laceration, and puncture injuries as well as other, related environmental emergencies.
Demonstrate how to effectively treat patients suffering from a variety of medical emergencies in the wilderness environment.

## EMS 250. Emergency

Medical Technician Lecture
(9). Emergency Medical Technician (EMT) is a course that enables the successful student to become eligible for certification as an EMT with the National Registry. This course provides the didactic instruction in basic life support in accordance with the National EMS Education Standards. Attendance in all sessions is expected. Corequisite: EMS 250LAB.
EMS 298. Special Topics (16). May be repeated if subject is different.
EMS 299. Seminar (1-5). May be repeated if subject is different.
EMS 335. Paramedicine I (4).
This course provides the foundational knowledge in paramedicine education in areas of preparatory elements of paramedicine, advanced airway management, historytaking, and physical examination, communications, documentation, ethics, and more. Prerequisite: admission
to the paramedical major or program. Co-requisite: EMS 335LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the foundational concepts and principles related to prehospital emergency medical care of the sick and injured person.
Demonstrate an understanding of the prepatory elements critical to EMS educational development and the foundation to EMS practice. Demonstrate competence and proficiency in basic and advanced patient assessment principles as well as comprehensive techniques in patient history-taking, interviewing practices, and definitive physical examination techniques.
Demonstrate competence and proficiency in basic and advanced principles of airway management and ventilatory support.
Demonstrate competence in principles of medication administration, clinical decision-making, roles and responsibilities of paramedical providers, effective communication techniques, and proper practices of documentation.
Demonstrate an understanding of the essential principles of prehospital paramedical and general healthcare ethics, medical-legal perspectives, and elements unique to life- span development.
EMS 336. Paramedicine II
(4). This course provides the foundational knowledge in paramedic education in areas of emergency obstetrics and gynecology, pulmonology, neurology, endocrinology, allergies, environmental, infectious diseases, psychiatric, toxicological, and more. Prerequisites: EMS 335 and admission to the paramedical major or program. Corequisite: EMS 336LAB.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the progressively comprehensive concepts and principles related to prehospital emergency medical care of the sick and injured person. Demonstrate an understanding of the principles and concepts related to obstetrics and gynecological emergencies. Demonstrate competence and proficiency in the concepts and practices of pulmonary and neurological emergencies, as well as endocrine emergencies, allergies and anaphylaxis, gastroenterology, and hematological emergencies. Demonstrate competence and proficiency in the concepts and practices of environmental and toxicological emergencies, as well as urological emergencies, infectious diseases and psychiatric and behavioral emergencies.
Demonstrate competence in researching clinical concepts and diseases by conducting literature searches and summarizing the findings to deliver oral and written presentations.

## EMS 337. Paramedicine III

(3). This course provides the foundational knowledge in paramedic education in areas of assessment-based management, neonatology, geriatrics, pediatrics, abuse and assault, rural EMS, and more. Prerequisites: EMS 336 and admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the progressively comprehensive concepts and principles related to prehospital emergency medical care of the sick and injured person. Demonstrate an understanding of the principles and concepts related to pediatric and geriatric emergencies. Demonstrate competence and proficiency in the concepts and
practices of neonatology, abuse and assault, rural EMS, and special population emergencies. Demonstrate competence and proficiency in the concepts and practices of emergency care of chronically ill patients, response to terrorism, crime scene awareness and preservation, and hazardous materials situations. Demonstrate competence in researching clinical concepts and diseases by designing EMS-appropriate research and by conducting literature searches and summarizing the findings to deliver oral and written presentations.
EMS 350. Paramedicine Instructional Methodologies
(2). This course provides instruction and opportunities to learn and apply techniques and methods of instruction in principles of EMS. Students will provide practical skill instruction to EMT student under the supervision of the program faculty. Grade will be either S or U. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the fundamental principles of educational methodologies as they relate to emergency medical services. Demonstrate competence and high-level of proficiencies in the basic life support skills associated with EMT education and performance. Demonstrate the proper steps, techniques, and procedures for providing initial instruction and remediation in the cognitive and psychomotor objectives of EMS 319 as an instructional adjunct to the course.
Demonstrate the proper steps, techniques, and procedures for providing effective and fair performance evaluation of student performance of the psychomotor objectives of

EMS 319 as an instructional adjunct to the course.
EMS 396. Individual Study
(1-6). May be repeated if subject is different.
EMS 397. Honors (1-12).
Prerequisite: admission to department honors program.
EMS 398. Special Topics (1-
6). May be repeated for credit. Prerequisite: admission to the paramedical major or program.
EMS 399. Seminar (1-5). May
be repeated if subject is different.
EMS 430. Problem-Based
Learning I (4). This course introduces case-based presentation of pathology, symptomatology, presentation, and treatment of clinical scenarios through life-span development, group discussion, and research. Corequisite: EMS 455 and admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Identify the principles and processes associated with problem-based learning and demonstrate cooperative and participatory contributions toward the process Participate fully in the investigation of medical symptom complexes, syndromes, pathologies, medical phenomenon, and the collaboration with fellow students in the progressive and integrative consensus of differential diagnoses Demonstrate understanding of case development and disease progression in simulated cases and correlate previous knowledge with newly gained information from case-specific research
Demonstrate understanding of the critical elements of a full patient profile as a standard of patient assessment, including history and physical examination details, differential diagnoses, presumptive diagnosis, and therapeutic options

Demonstrate ability to utilize resources and referential information in the investigation of medical entities, pathologies, symptom complexes, and disease presentations and integrate that information into a patient profile
Demonstrate ability and willingness to cooperate, participate, collaborate, and lead group discussions, to facilitate collective decisions, and arrive at a presumptive diagnosis consensus
EMS 431. Problem-based
Learning II (4). This course continues case-based presentation of pathology, symptomatology, presentation, and treatment of clinical scenarios through life-span development, group discussion, and research.
Prerequisites: EMS 430 and admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Identify the principles and processes associated with problem-based learning and demonstrate cooperative and participatory contributions toward the process. Participate fully in the investigation of medical symptom complexes, syndromes, pathologies, medical phenomenon, and the collaboration with fellow students in the progressive and integrative consensus of differential diagnoses. Demonstrate understanding of case development and disease progression in simulated cases and correlate previous knowledge with newly gained information from case-specific research.
Demonstrate understanding of the critical elements of a full patient profile as a standard of patient assessment, including history and physical examination details, differential diagnoses, presumptive diagnosis, and therapeutic options.

Demonstrate ability to utilize resources and referential information in the investigation of medical entities, pathologies, symptom complexes, and disease presentations and integrate that information into a patient profile.
Demonstrate ability and willingness to cooperate, participate, collaborate, and
lead group discussions, to facilitate collective decisions, and arrive at a presumptive diagnosis consensus. Demonstrate ability to organize, investigate, manage, and segregate several complex problem-based cases simultaneously to an effective outcome.
EMS 440. Medical Mathematics and Terminology (2). This course provides instruction in various methods of medical drug calculations and dosing of medications commonly utilized in emergency settings, as well as an introduction to medical terminology. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of medical etymologies, root words, prefixes, suffixes, and combined terms as they relate to emergency medical services. Demonstrate an understanding of basic medical vocabulary and the application of medical terms as they relate to emergency medical services. Demonstrate an understanding of basic mathematics, including fractional and decimal operations, fractional/decimal conversions, percentages, ratios, proportions, simple algebraic functions, as well as the metric and apothecary systems. Demonstrate an understanding of various methods of drug dosage calculation, including ratios \& proportions, forumla method, and dimensional analysis (among others).

Employ various drug calculation methods in solving real-life drug dosing scenarios as they relate to emergency medical services.
EMS 441. General Pharmacology for
Paramedics (3). Mechanism of action, indications, and contraindications of drugs, their side effects, and dosage of administration. Prerequisites:
EMS 440 and admission to the paramedical major or program.
EMS 443. Myocardial Disease and Basic Electrocardiography (4). This course provides instruction in the basic elements of bipolar limb-lead electrocardiography, beginning with a review of cardiovascular A and P, a brief discussion of cardiac pathologies, and focuses on EKG interpretation and dysrhythmia recognition. Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of common diseases and pathologies of the cardiovascular system, including the clinical presentation and the electrocardiographic and hemodynamic consequences of each.
Demonstrate an understanding of the anatomical structures and physiology of the heart, with emphasis on the electrical conduction system, and the common dysfunctions that present
electrocardiographically. Demonstrate an understanding of basic features of electrocardiographic analysis, a systematic approach to EKG analysis, as well as features and criteria of single, bipolar limb lead dysrhythmias. Demonstrate an understanding of the identification criteria of each of the major cardiac dysrhythmias that provide fatal or potentially fatal outcomes, as well as more benign dysrhythmias.

Demonstrate an understanding of various methods and alternatives of therapeutic interventions related to fatal or potentially fatal dysrhythmias.
EMS 444. Twelve-lead
Electrocardiography (4). This provides instruction in the advanced elements of 12-lead EKG analysis. It begins with a review of the essentials of EKG interpretation and introduces ACLS concepts following with a comprehensive approach to 12lead EKG analysis. Prerequisites: EMS 443 and admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the anatomical features and physiological aspects of the cardiovascular system, with emphasis on the electrical conduction system and mechanical cardiac output. Demonstrate an understanding of the electrocardiographic analysis of the heart with a 3 dimensional perspective in 12lead EKGs, as well as fundamentals of 12-lead analytical principles. Demonstrate an understanding of 12-lead EKG analysis of P waves, QRS complexes, S-T segments, T waves, electrical axis, chamber enlargement and hypertrophy, and EKG evidence of myocardial disease including ischemia and infarction.
Demonstrate an understanding of the advanced management of acute coronary syndromes, and the various ACLS cardiac algorithms for bradyarrhythmias, tachyarrhythmia's, blocks, and cardiac arrest/shock scenarios. Demonstrate an ability to integrate knowledge of EKG analysis, with clinical presentation, with understanding of pathophysiology's to properly employ therapeutic interventions in all scenarios.

EMS 450. Human Anatomycadaver Lab (Put on reserve $9 / 16 / 16$.) (1). This course provides instruction in the human anatomy and physiology with practical lab examination, exploration, and limited dissection of the human body. Two hours laboratory per week. By permission. (Put on reserve $9 / 16 / 16$. Last taught in 2012. Will go inactive 8/24/19.)
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the essential structures of human anatomy encompassing all body systems.
Demonstrate an understanding of basic medical physiology of human systems as well as an integration of medical physiology with human anatomy.
Demonstrate an understanding of basic medical terminology as it relates to human anatomy and physiology.
EMS 451. Advanced Trauma
Care (3). This course provides instruction in the advanced elements of trauma care, including trauma triage, fluid resuscitation, trauma arrest management, multi-system management, and trauma of the head, neck, thorax, abdomen, and extremity. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the principles of trauma care, trauma systems, and the role of EMS in trauma care. Demonstrate an understanding of kinematics of trauma, blunt force trauma, penetrating trauma, epidemiology of trauma, the physiological consequences and treatment of hemorrhage and shock in trauma patients, and shock trauma resuscitation. Demonstrate an understanding of the pathophysiology's, symptomatologies, and treatment modalities soft-tissue
trauma, bums, musculoskeletal trauma, and trauma to the head, face, neck, spinal cord, thorax, and abdomen.
Demonstrate an understanding of the advanced, contemporary concepts related to trauma care in both in-hospital and prehospital settings, as well as innovative aspects of trauma care awaiting approval.
EMS 455. Introduction to
Pathophysiology (3). This
course introduces fundamental pathologies common to all age groups. It establishes concepts and foundational basis of disease from the cellular perspective to the fully developed organism.
Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Recall knowledge, application and synthesis information related to cellular anatomy and function, genetics, immunology, and abnormal cellular proliferation Demonstrate knowledge of the anatomical, physiological and pathopysiological aspects of the neurologic, endocrine, reproductive, hematologic, renal and urologic systems, as well as the digestive, integumentary, and the musculoskeletal systems. Demonstrate knowledge of the anatomical, physiological and pathopysiological aspects of the cardiovascular, lymphatic, and pulmonary systems. Identify the fundamental anatomical, physiological and pathophysiological differences between pediatric, adult, and geriatric populations, as well as select gender and racial differences.
Demonstrate the ability to correlate the cognitive objectives of EMS 450 with other related EMS courses in the Major.
EMS 459. Emergencies in Pediatric/Geriatric Care (3). Emergency training in assessing, treating, and transporting pediatric/geriatric
patients. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Tailor basic principles of assessment, treatment, and transport to the unique needs of the pediatric patient. Know airway managements and respiratory distress of the pediatric patient. Know how to recognize and handle common pediatric medical emergencies. Recognize and handle the pediatric trauma patient and know the critical differences between pediatric trauma and adult trauma.
Recognize sudden infant death syndrome, child abuse and critical incident stress, understanding reporting and dealing with such incidents. Become aware of the physiologic, social and psychological considerations while caring for the elderly patients: treating elderly with respect and genuine concern, correctly take patient history from the elderly, general considerations to conducting physical examinations on the geriatric population.
Learn to assess and handle the following medical emergencies in the geriatric population: respiratory emergencies respiratory disease in the elderly (acute pulmonary edema, chronic obstructive pulmonary disease, pneumonia and pulmonary embolism), cardiovascular emergencies acute changes in the cardiovascular stability due to age of patient, neurologic emergencies - changes in the brain due to loss of brain cells, atherosclerosis.
EMS 460. Research in EMS I
(3). This course introduces research design and methodologies common to medicine and paramedicine. It establishes the foundation for EMS research projects and possible publication.

Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the relevance of research in EMS and its impact on future development. Demonstrate cognitive attainment of the general principles of research, its purpose, its benefits, its limitations, and how it relates to the EMS Agenda for the Future.
Demonstrate understanding of the various research designs, their benefits and limitations, and to apply those concepts to practical, original research. Discuss and delineate the differences and respective advantages between quantitative and qualitative research, as well as the benefits of blended research (hybrid). Demonstrate understanding of preparatory phases of research, including, but not limited to, literature searches, development of research questions; meta-analysis, and scope assessment of proposed research.
Demonstrate an understanding of data collection principles, including data collection instruments, compilation of data, content analysis, unit analysis, variable identification, and other related aspects; as well as basic statistical analysis of data. Identify a relevant, meaningful, and feasible research topic ( question) for EMS to begin conducting original research. Develop a full research design for a particular EMS topic with all of its associated elements and parameters.

## EMS 461. Research in EMS

II (3). This course continues education in research design and methodologies common to medicine and paramedicine. It provides the student the opportunity to complete EMS research projects and possible publication. Prerequisites:

EMS 460 and admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Continue to develop a full research design for a particular EMS topic with all of its associated elements and parameters. Demonstrate understanding of research design principles of data collection. Demonstrate understanding of research design principles of data compilation and analysis. Demonstrate understanding of research design principles of outcomes reporting and research conclusions. Demonstrate ability to relate original research findings to selected audience through journal article submission.

## EMS 465. Educational

Methodologies in EMS (3).
This course introduces common educational methodologies applied in EMS education with focuses on didactic, psychomotor, and affective education domains. Additional content include curricula development, evaluation methods, test construction, and critical psychometric parameters. Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate the relevance, benefits, and limitations in the educational process for EMS providers.
Demonstrate an understanding of traditional educational methodologies and practices common with EMS training. Demonstrate an understanding of non-traditional and innovative educational methodologies and practices that have utility in EMS education. Incorporate specific, welldeveloped educational methods into a classroom or practical skills lab environment and measure learning outcomes to validate the process change.

Demonstrate a thorough understanding of the assessment methods, instruments, and outcome values as they pertain to EMS education.

## EMS 470. Current Topics in

 Emergency Medicine (3).This course instructs students how to conduct medical literature searches and to critically review peer-reviewed articles and surveys the contemporary literature for relevant concepts and issues germane to EMS. Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to effectively and efficiently conduct a survey of contemporary subject matter in EMS professional, peerreviewed journals and publications.
Demonstrate the ability to effectively identify a relevant topic that pertains to and impacts EMS; to conduct a literature review of that topic, and to summarize the findings. Demonstrate the ability to select a single, contemporary article on a subject matter closely related to EMS and to summary that article in both written and verbal formats for audience dissemination. Demonstrate the ability to critically evaluate all of the essential elements of a professional, peer-reviewed journal article, including purpose, design, methods, discussion, conclusions, and internal/external validity. Demonstrate the ability to critically assess the effectiveness of colleague's reviews of journal articles, article reviews, and textbooks.
EMS 475. EMS Response to
Terrorism (3). This course examines contemporary thought on the philosophical basis and motivation for terrorism and discusses currently prevalent issues, principles of mitigation for

EMS providers, and strategies to prevent terroristic threats. Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Identify the basic elements of terrorism, its components, the varying taxonomies, the different philosophies and ideologies, and the current military and emergency response perspectives of terrorism.
Demonstrate an understanding of effective strategies to prevent homeland terrorism and to mitigate terrorist attacks.
Demonstrate knowledge in principles of planning for disasters; ICS; intial triage, diagnosis \& treatment of patients in major disasters (CBRNE); and assimilation of after-action reports.
Demonstrate an understanding of contemporary aspects of an EMS response to terrorism and the integration of the National Incident Management System (NIMS) and the National Response Framework (NRF).
EMS 480. Financial Analysis of EMS Systems (3). This
course introduces basic financial analytical processes as they apply to EMS, with emphasis on interpreting financial statements, assessing financial burden, cost projection, cost-benefit analysis, and formulas for evaluating financial performance. Prerequisite: admission to the paramedical major or program. Upon successful completion of this course, the student will be able to:
Demonstrate ability to initiate and manage effectively accounting ledger entries for traditional revenueexpenditure accounting. Demonstrate an understanding of the elements of a balance sheet and an income statement, the importance of each respective element, and their relationship to each other in
traditional EMS financial management.
Demonstrate the ability to conduct effective and meaningful financial analysis of an organization's budget and revenue versus expenditures utilizing traditional and fundamental formulae and methods.
Demonstrate the ability to conduct effective and meaningful financial analysis of an organization's budget and revenue versus expenditures utilizing financial ratios and projection of fiscal trends and performances.

## EMS 481. Quality

Improvement and Administration of EMS (3).
This course introduces
elemental concepts to
continuous quality
improvement with application to EMS systems. It also introduces how CQI data can be used to inform EMS administration. General principles of management will be reviewed. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of basic managerial practices in private and public sector EMS organizations, including management philosophies, structures, ethics, planning, controlling and execution. Demonstrate an understanding of personnel and time management concepts, including fundamentals of human resources, recordkeeping, disciplinary actions, meeting management, and performance appraisal. Demonstrate an understanding of continuous quality improvement principles and concepts related to quality assessment, benchmarking, trending, continuous feedback, participatory management practices, and goal- setting. Correlate objectives in EMS 480 to the principles of EMS
management and
administration.
EMS 482. Systems Analysis
of EMS (4). This course
integrates previously learned
concepts into a systematic approach of EMS system problem-identification, prioritization, and solutions proposals. It incorporates research design, financial analysis, and policy analysis into an integrated approach. Prerequisites: EMS 460, EMS 480, EMS 481 and admission to the paramedic major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of the importance of organizational and system analysis in EMS and the impact analysis has on administration, strategic planning, and problem mitigation.
Demonstrate an understanding of the various forms of organizational and system analysis and to effectively employ one method of analysis to identify and propose solutions to an organizational problem.
Demonstrate an ability to employ research principles and techniques to system/organizational analysis to discern problems and predict outcomes.
Demonstrate an understanding of fundamentals of microeconomics as it applies to EMS, the impact CQI has on analysis of systems, principles of cost-benefit analysis, and the essentials of policy analysis for EMS.
Correlate objectives in EMS 480 and EMS 481 to the principles of System Analysis of EMS.
EMS 485. Strategic Planning for EMS (3). This course introduces foundational concepts of strategic planning into EMS development. It enables the student to apply strategic principles of management to real-life EMS
systems. Prerequisite: admission to the paramedical major or program.
Upon sucessful completion of this course, the student will be able to:
Demonstrate an understanding of the various organizational structures common to EMS agencies, their attributes, advantages, and limitations. Demonstrate an understanding of the differences among private sector, public sector, for-profit, not-for-profit, municipal authority model, tiered model EMS, fire-based EMS, independent EMS, government EMS, hospitalbased EMS, and military EMS models.
Demonstrate an understanding of the general forms of strategic planning and develop proficiency in the major form and applying those concepts to EMS organizational
development.
Demonstrate an ability to identify organizational problems and growth stagnation and to apply analytical principles to discern effective solutions and strategic plans for future growth and development.
EMS 488. Health Policy in
EMS (3). This course introduces policy development and agenda-setting at the state and national levels. It provides basic instruction in policy analysis and surveys current health policies that may impact EMS. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the relevance and impact of health policy and EMS health policy has on current and future development of EMS in the nation.
Demonstrate an understanding of the basic forms of healthcare delivery models, the advantages and disadvantages of each, and how they impact
the delivery of EMS in national and global perspectives.
Demonstrate an understanding of how EMS can positively impact general healthcare policy and reduce national healthcare expenditure and the size of the uninsured populations.
Demonstrate an understanding of the intricate relationship that EMS has with other realms of healthcare, with public health and with public safety. Demonstrate an understanding of effective policy analysis as it pertains to EMS in the general healthcare market and economy.
EMS 489. Leadership in EMS (3). This course examines various leadership styles, assesses student aptitude for leadership style, and develops a foundational structure to develop superior leadership abilities in EMS systems. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the general philosophies and principles of leadership with emphasis on leadership in EMS.
Demonstrate an understanding of the various taxonomies of leadership, their attributes, advantages, and limitations with emphasis on their impact to EMS.
Identify common challenges and dilemmas that face EMS leaders today and develop an effective approach to lead through a crisis in EMS. Identify each student's own leadership style and develop it and supplement it with alternative leadership styles for a more comprehensive approach.
Demonstrate ability to develop a leadership approach is a specific EMS crisis situation.
EMS 490. Cooperative
Education Internship (1-12).
An individualized field
experience internship with
medical agencies for the purposes of basic and advanced clinical skills development in EMS paramedicine. Each course will have an individual learning plan and faculty coordinator. Acceptance into the EMS paramedicine major.

## EMS 496. Individual Study

(1-6). May be repeated if subject is different.
EMS 497. Honors (1-12).
Prerequisite: admission to department honors program.
EMS 498. Special Topics (1-
6 ). May be repeated if subject is different.
EMS 499. Seminar (1-5). May
be repeated if subject is
different.

## EMS 247LAB. Wilderness

 Emergency Care Laboretory(1). This course will employ the cognitive objectives of EMS 247 into practical skill development through classroom lab and outdoor evolution lab scenarios. Course will be offered every year (Fall, Winter, Spring, Summer). Co-requisite: EMS 247.

Upon successful completion of this course, the student will be able to:
Define the goals, applicability, and limitations to wilderness emergency care.
Demonstrate the proper wilderness emergency care patient assessment, including the head-to-toe examination. Perform the complete SAMPLE history-taking process for patients in the wilderness setting in conjunction with the physical examination.
Translate the subjective findings from the historytaking process and the objective findings from the patient assessment into appropriate SOAP notes. Explain the essential aspects of each of the commonly encountered wilderness medical and trauma emergencies.
Explain how to prevent common wilderness emergencies and safety risks.

List the criteria inherent to the evacuation of a patient from a wilderness environment. Demonstrate how to effectively treat, package, and evacuate a patient from the remote wilderness environment. Demonstrate how to effectively treat patients suffering from central nervous system, spinal column, extremity, musculoskeletal, and soft tissue injuries.
Demonstrate how to effectively treat patients suffering from heat, cold, closed blunt force trauma, drowning, envenomation, fracture, laceration, and puncture injuries as well as other, related environmental emergencies.
Demonstrate how to effectively treat patients suffering from a variety of medical emergencies in the wilderness environment.
EMS 250LAB. Emergency Medical Technician Lab (3).
The Emergency Medical Technician (EMT) lab provides instruction in the practical skills application of the EMT didactic content, including patient assessment, airway management, oxygen delivery, medication assistance, ambulance operations, lifting and moving patients, bleeding control, fracture immobilization, spinal cord injury management, emergency childbirth, and much more. Grade will either be S or U . Co-requisite: EMS 250.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in conducting a patient interview, obtaining vital signs, and lifting and moving patients correctly.
Demonstrates proficiency in assessing adequacy of airway and breathing, employing basic lite support airway adjunct devices, performing oral and oropharyngeal suctioning, and effective delivery of oxygen with various delivery devices. Demonstrates proficiency in conducting a scene survey, a thorough patient assessment,
including physical examination of body systems, and the integration and documentation of information Demonstrates proficiency in performing assessments and therapeutic interventions of respiratory, cardiovascular, endocrine, allergic, poisoning, environmental, behavioral, and obstetrical emergencies. Demonstrates proficiency in emergency childbirth, neonatal resuscitation, and the assessment and management of pediatric emergencies Demonstrates proficiency in the assessment and management of soft tissue injuries, bleeding and shock, musculoskeletal injuries, immobilization of the spinal column, and wound management
Demonstrate proficiency in the assessment and management of infants and children, with emphasis on resuscitation and emergency interventions. Demonstrate proficiency in the rescue procedures and management of special situations, including gaining access and extrication of patients.
Demonstrate proficiency in the application of advanced airway management techniques and equipment as well as assisting with intravenous therapy equipment.
EMS 335LAB. Advanced
Clinical Practice I (2). This
course provides practical lab instruction in paramedicine including advanced airway procedures, patient assessment, history-taking, physical examination, medication administration, intravenous therapy, and other related emergency procedures. Grade will either be S or U . Corequisite: EMS 335 and admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Demonstrate the proper steps, technique, and procedure for performing parenteral
medication administration (including intramuscular, subcutaneous, intravenous, endotracheal, transcutaneous, and other similar routes). Demonstrate the proper steps, technique, and procedure for performing intravenous cannulation in a peripheral vein for purposes of phlebotomy, fluid administration, and medication administration. Demonstrate the proper steps, technique, and procedure for performing preparation of medication administration, utilization of associated equipment, alternative parenteral and enteral medication administration, and other, associated requisite skills.
Demonstrate competence and proficiency in performing the necessary steps, techniques and procedures in the execution of basic and advanced principles of airway management and ventilatory support.
Demonstrate competence in the principles of performing an effective and appropriate patient interview for historytaking and data collection of patients, including therapeutic communication and proper documentation.
Demonstrate competence in the principles and procedures related to physical exam practices in general and specific to pulmonary, cardiovascular, neurological, gastrointestinal, integumentary, musculoskeletal, and other body systems review.

## EMS 336LAB. Advanced

Clinical Practice II (2).
Accompanying laboratory to Paramedicine II, providing intensive training in obstetrical emergencies, pulmonary assessment and treatment, management of cardiovascular emergencies, cardiac arrest team management, and leadership development. Grade will either be S or U . Prerequisite: admission to the paramedical major or program. Co-requisite: EMS 336.

Upon successful completion of this course, the student will be able to:
Demonstrate the rationale to employ the proper steps, technique, and procedure for performing emergency obstetrical interventions, including normal and difficult deliveries (Leopold's, McRobert's, Wood's Maneuvers, and more). Demonstrate the proper steps, technique, and procedure for performing emergency gynecological interventions, toxicological interventions, environmental interventions, management of severe allergies \& anaphylaxis, and cases of infectious disease.
Demonstrate the proper steps, technique, and procedure for performing assessment and management of patients experiencing acute and/or severe episodes of illness or trauma to the pulmonary and/or the cardiovascular system. Demonstrate the proper steps, technique, and procedure for performing assessment \& management of patients with acute and/or severe episodes of illness or trauma to the gastrointestinal, hematologic, neurologic, and the behavioral/psychiatric systems.
EMS 337LAB. Advanced Clinical Practice III (2).
Accompanies EMS 337 lecture providing practical skill education in a laboratory setting in the therapeutic paramedical interventions of pediatrics, geriatrics, and advanced medical emergencies. By permission. Grade will either be S or U . Prerequisite: EMS 337.
Upon successful completion of this course, the student will be able to:
Identify anatomical and physiological differences among pediatric and geriatric populations; along with the common pathophysiological phenomena associated with the extreme age groups.
Conduct a systematic patient assessment tailored to the
differences among pediatric and geriatric age groups and demonstrate management and leadership skills under these circumstances.
Perform a neonatal assessment with an emphasis on clinical occurrences common among that age group as well as typical interventional therapeutics.
Identify common pathologies among the geriatric age group and the corrective therapeutic interventions that are necessary for each.
Perform advanced airway management procedures (Including endotracheal intubation) on pediatric patients and all of the associated monitoring, maintenance, and corrective measures necessary. Understand the social and therapeutic communication differences among extreme age groups in emergency medical management and demonstrate those techniques during an interview process.
Demonstrate all of the essential assessment and therapeutic interventions necessary in the provision of emergency prehospital care in patients with unusual or extraordinary circumstances, characteristics, or subgroups of patient populations.

## EMS 493A. Paramedicine

Internship I (3). This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. May be repeated for credit. Grade will either be S or U. Prerequisite: admission to the paramedical major or program.
Upon successful completion of this course, the student will be able to:
Attain all of the terminal objectives set forth in the clinical requirements of the Program without exception and without modification including $25 \%$ of the hour requirements for Program clinical objectives.

Demonstrate psychomotor skills in adult patient assessment, ophthalamic/otoscopic examination, advanced airway management, rapid sequence intubation, CPAP/BiPAP, autovent, BVM ventilation, needle thoracentesis, and surgical cricothyrotomy. Demonstrate psychomotor skills in intravenous therapy and venipuncture; intramuscular, subcutaneous, endotracheal, oral, otic, nasal, buccal, inhalation, sublingual, transdermal, intravenous medication administration Demonstrate psychomotor skills in central line placement, intravenous infusion, EKG interpretation of bipolar limb leads, endotracheal extubation, obtaining blood specimen, and oxygen administration.
EMS 493B. Paramedicine Internship II (4). This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. Grade will either be S or U. Prerequisite: EMS 493A.
Upon successful completion of this course, the student will be able to:
Attain all of the terminal objectives set forth in the clinical requirements of the Program without exception and without modification including $33 \%$ of the hour requirements for Program clinical objectives. Demonstrate psychomotor skills in adult patient assessment, ophthalamic/otoscopic examination, advanced airway management, rapid sequence intubation, $\mathrm{CP} \mathrm{AP} / \mathrm{BiPAP}$, autovent, BVM ventilation, needle thoracentesis, and surgical cricothyrotomy. Demonstrate psychomotor skills in intravenous therapy and venipuncture; intramuscular, subcutaneous, endotracheal, oral, otic, nasal, buccal, inhalation, sublingual, transdermal, intravenous medication administration.

Demonstrate psychomotor skills in central line placement, intravenous infusion, EKG interpretation of bipolar limb leads, endotracheal extubation, obtaining blood specimen, and oxygen administration. Demonstrate psychomotor skills in 12-lead ECG acquisition and interpretation; Defibrillation, Cardioversion, and Transthoracic Pacing; carotid sinus massage; Valsalva Maneuver; CVP measurement; and auscultation of heart tones.
Demonstrate psychomotor skills in emergency obstetrics; McRoberts, Woods, and Leopold Maneuvers; nasogastric and orogastric tube insertion; urinary catheter maintenance; pulmonary function monitoring; and nasotracheal and oral suctioning.
Demonstrate psychomotor skills in pulmonary assessment (including auscultation); neurological assessment; gastrointestinal assessment; preventative and mitigating actions of infectious diseases and communicability; and ABG analysis. Demonstrate psychomotor skills in acute psychiatric and emotional crisis assessment and intervention; patient restraint; pharmacological restraint; and management of toxidromes.
EMS 493C. Paramedicine
Internship III (5). This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. Grade will either be S or U. Prerequisite: EMS 493B.
Upon successful completion of this course, the student will be able to:
Attain all of the terminal objectives set forth in the clinical requirements of the Program without exception and without modification including $42 \%$ of the hour requirements for Program clinical objectives.

Demonstrate psychomotor skills in all of the Learner Outcome Objectives of EMS 493A and EMS 493B in continuity and, in addition, the following Learner Outcome Objectives.
Demonstrate psychomotor skills in pediatric assessment; neonatal assessment; pediatric and neonate airway management; pediatric respiratory assessment; pediatric cardiovascular assessment; and neonatal cardiorespiratory assessment. Demonstrate psychomotor skills in umbilical vein cannulation; scalp vein cannulation; neonatal resuscitation; postpartum hemorrhage control; pediatric assessment triangle; neonatal ventilation \& oxygenation; APGAR scoring; and heat control
Demonstrate psychomotor skills in assessment-based management; assessment of geriatric patients; managing sensory deprivation of patients; management of the challenged patient; and acute interventions of the chronic patient. Demonstrate psychomotor skills in principles of HazMat management; Medical Incident Management; EMS Operations; Response to Terrorism; and leadership and team management.
ENG 101. Academic Writing I: Critical Reading and
Responding (5). Develops
skills necessary for academic writing, including summarizing, reading sources critically and responding to them, synthesizing multiple perspectives, and using academic writing conventions. Required of all students except those who have passed an exemption examination. Students must earn a minimum grade of C- or above to enroll in ENG 102. Basic Skills 2 English Comp I. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: appropriate test scores or have satisfactorily
completed ENG 100T:
Transitional English.
Upon successful completion of this course, the student will be able to:
Read college-level texts critically and rhetoricallydistinguishing central ideas from evidence; identifying the author's purpose, assumptions, and attitudes; and locating issues or topics in need of further research
Summarize college-level texts objectively, accurately, and ethically-referring to all key ideas and excluding unnecessary details. Respond to college-level textsevaluating their reasoning, currency, thoroughness of research, or reliability of findings.
Synthesize responses to issues, various perspectives on a topic, or solutions to a problem and draw reasonable conclusions based on this synthesis. Express ideas in clear and coherent sentences and paragraphs, following the conventions of Academic English-citing sources and demonstrating control of grammar, usage, and punctuation rules.

## ENG 102. Academic Writing

 II: Reasoning and Research on Social Justice (5).Develops skills in researchbased academic argument through assignments involving evaluation, analysis, and synthesis of multiple sources. Course will be offered every year (Fall, Winter, Spring, Summer). Basic Skills 3 English Comp II. Prerequisite: ENG 101 with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Analyze and critique an argument, evaluating its rhetorical effectiveness and identifying underlying assumptions.
Identify and synthesize highquality sources and use them effectively in support of an argument.

Take a position on an issue concerning social justice and identity by developing a focused assertion based on a shared assumption, presenting evidence in support of a line of reasoning, addressing divergent stances on the issue, and using a variety of rhetorical appeals. Cite and document sources precisely and effectively according to the guidelines of a specific style manual. Describe the interrelationship between style and meaning and make adjustments to style to enhance meaning.
Craft prose that conforms to academic conventions and to expectations regarding clarity, coherence, and unity.
ENG 103. Academic Writing
II: Reasoning and Research on Health and Current Issues
(5). Develops skills in research-based academic argument through assignments involving evaluation, analysis, and synthesis of multiple sources. Course will be offered every year (Fall, Winter, Spring). Prerequisite: ENG 101 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Identify and synthesize highquality sources and use them effectively in support of an argument.
Identify and synthesize highquality sources and use them effectively in support of an argument.
Cite and document sources precisely and effectively according to the guidelines of a specific style manual. Describe the interrelationship between style and meaning and make adjustments to style to enhance meaning.
Craft prose that conforms to academic conventions and to expectations regarding clarity, coherence, and unity.
ENG 104. Academic Writing
II: Reasoning and Research
on Sustainability and Civic
Engagement (5). Develops
skills in research-based
academic argument through assignments involving evaluation, analysis, and synthesis of multiple sources. Course will be offered every year (Fall, Winter, Spring). Prerequisite: ENG 101 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Analyze and critique an argument, evaluating its rhetorical effectiveness and identifying underlying assumptions.
Identify and synthesize highquality sources and use them effectively in support of an argument.
Take a position on an issue by developing a focused assertion based on a shared assumption, presenting evidence in support of a line of reasoning, addressing divergent stances on the issue, and using a variety of rhetorical appeals. Cite and document sources precisely and effectively according to the guidelines of a specific style manual. Describe the interrelationship between style and meaning and make adjustments to style to enhance meaning.
Craft prose that conforms to academic conventions and to expectations regarding clarity, coherence, and unity.
ENG 105. The Literary Imagination: An Introduction to Literature
(5). Human experience as it is imagined, interpreted, and made significant in poetry, prose, fiction, and drama. ENG 105, 106 and ENG 107 are equivalent courses; students may receive credit for only one. Course will be offered every year (Fall, Winter, Spring, Summer). AHLiterature and Humanities (W). Prerequisite: ENG 101 with a grade of C- or higher.
Upon successful completion of this course, the student will be able to:
Read and respond to literary works from a variety of
cultures and from a range of historical periods.
Read and respond to literary works of poetry, fiction, and drama and recognize formal and rhetorical differences among genres.
Demonstrate an understanding of how literary elements such as character development, setting, and figurative language relate to literary meaning. Interpret and analyze literary works from diverse cultural perspectives and respond to the ways the works contend with issues of race, class and gender privilege.
Identify and reflect on how literary works challenge linguistic, conceptual, and normative presuppositions.
ENG 106. Literature and the Environment (5). An introduction to literature as it relates to place and the environment. ENG 105, 106 and ENG 107 are equivalent courses; students may receive credit for only one. Course will be offered every year (Spring). Prerequisite: ENG 101 with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Explore a breadth of literary elements. Recognize and discuss literary elements in a variety of genres and forms. Connect to writing life beyond the classroom Reflect, revise, and synthesize their writing, engaging with cultural aesthetics as appropriate Apply their new knowledge to engage and connect with local communities, demonstrating compassionate leadership.
ENG 107. Literature, Health, and Well-Being (5). An introduction to literature exploring works about health and well-being. ENG 105, 106 and ENG 107 are equivalent courses; students may receive credit for only one. Course will be offered every year (Spring). Prerequisite: ENG 101 with a grade of C- or higher.

Upon successful completion of this course, the student will be able to:
Read and respond to literary works from a variety of cultures and from a range of historical periods that focus on well-being.
Read and respond to literary works of poetry, fiction, and drama and recognize formal and rhetorical differences among genres.
Demonstrate an understanding of how literary elements such as character development, setting, and figurative language relate to literary meaning. Interpret and analyze literary works in relation to personal and social health and wellbeing in diverse historical and cultural contexts
Identify and reflect on linguistic, conceptual, and normative presuppositions about health and well-being
ENG 180. Introduction to
Linguistics (5). Backgrounds, developments, and relation to other fields of study.
ENG 220. Grammar for Writers (2). Intermediate study of English grammar and strategies for improving clarity and coherence in writing. Prerequisite: ENG 101.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of terms and concepts used to describe standardized academic English.
Describe the structure of sentences in standardized academic English. Apply knowledge of formal grammar by analyzing and producing academic writingattending to word choice, sentence structure, cohesive devices, and use of punctuation.
Use knowledge of sentence structure to improve the clarity, coherence, and unity of both sentences and paragraphs. Use knowledge of formal grammar to edit one's own work and comment on the writing of others.

ENG 222. Multicultural Literature for Teachers (5).
Prospective secondary English language arts teachers will read and respond to various genres of multicultural/world literature and develop methods and assignments for teaching texts that invite students to think critically and use evidence to support their viewpoints. Course will be offered every year (Fall). Prerequisites: ENG 101 and ENG 102 and admission to the English/language arts teaching major.
Upon successful completion of this course, the student will be able to:
Read and respond to works representing and authored by a range of cultures and ethnicities globally and within the United States - including Native American, Asian American, African American, Mexican American and Gay and Lesbian Read and respond to multicultural literary works of various genres - including poetry, fiction, essay, and film Plan and present a lesson describing how literary elements such as plot, character, theme, setting, tone, and figurative language relate to literary meaning in a text Write an essay that demonstrates the ability to read closely, interpret effectively, and analyze and synthesize literary works in their cultural contexts
Model higher level thinking skills and scaffold metacognitive processes for a wide variety of literary tasks related to multiculrural themes, such as Origins and Insights, Gender and Identity, Race and Difference, and Individualism and Community
Develop methods for teaching multicultural literature, including assignments and assessment strategies that invite students to think critically and use textual evidence to support their viewpoints

Participate in both small and large group discussions on issues of class, race, ethnicity, and sexual preference in literature
Participate in two campus or community activities related to diversity and multiculturalism and make connections between their content and ideas/issues/texts/strategies explored in the course.
ENG 243. Talking Back:
Power, Diversity, and Social
Justice (5). This course examines the current arguments and perspectives on issues of social justice- race, class, gender, sexuality, and ethnic diasporas--both locally and globally through analysis of multicultural transnational texts, issues and events. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Articulate the requirements of informed citizenship based on analysis of social, cultural, economic and/or political processes, issues, and/or events.
Explain how social, psychological, and/or culturally diverse experiences create value in the community. Analyze relationships between local, national, regional, and/or global cultures and community, citizenship, politics, and/or government.
Describe how historical, social, economic, and/or cultural developments have affected communities, citizenship, politics, and/or government.

## ENG 247. Multicultural

Literature (5). Literary themes examined through the comparison of works from various cultures. AH-Literature and Humanities (W). Prerequisite: ENG 101 with a grade of C - or higher. Upon successful completion of this course, the student will be able to:
Represent in written and oral form an introductory
knowledge of the cultures and histories major minority groups in the United States, including but not limited to African Americans, American Indians, Asian Americans, Latino/Latinas. Identify major literary themes and concepts that appear in American multicultural literature such as changing definitions of personal, cultural, and national identity, slavery, diaspora, racism, nativism, the American Dream, social protest, the labor movement, feminism, cultural differences, religion, and the
Civil Rights movements.
Demonstrate an ability to read, interpret, and analyze the literary works of these minority groups in their historical and cultural contexts.
Submit at least eight pages of
writing "that is assessed for content and mechanics
(grammar, spelling,
punctuation, and
organization)," in accordance with the General Education
Writing Requirement.
ENG 250. Reading and Writing Enrichment (Put on reserve 9/16/17) (3). This class offers sophomores and juniors augmented instruction in reading and writing, building on concepts and skills learned in ENG 101 and ENG 102. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Prerequisites: ENG 101 and ENG 102 and sophomore or junior standing and GPA less than or equal 2.5 .
Upon successful completion of this course, the student will be able to:
Increase their reading
efficiency and comprehension of college-level texts Improve their writing skills using a variety of genres of writing
Apply reading and writing strategies across the curriculum for the purposes of research and documentation Use informal writing to explore and reflect on ideas using
freewrite, reflections and situational writing Increase their critical thinking and interpretation skills
ENG 263. Introduction to
Creative Writing (5). An
introduction to the creative writing genres: poetry, fiction, screenwriting, and creative nonfiction. Examines the rhetorical forms and expectations of each in a workshop format.
Prerequisites: ENG 101 and ENG 102 or equivalents. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the conventions that govern creative nonfiction, what its expectations are, how professional writers have manipulated the genre. Demonstrate knowledge of the conventions that govern fiction, what its expectations are, how professional writers have manipulated the genre, the uses of dialogue, exposition, flashbacks, plot, and character.
Learn about the conventions of poetry, some of the current strategies (confessional, imagist, formal, postmodern, etc.), its forms, the persona poem, etc.
Complete and submit a portfolio of revised work that demonstrates their repertoire of creative writing skills. Critique each other's writing productively in workshop settings, attending to the elements of form, tone, and language introduced and modeled by the instructor. Learn about the conventions of play and screenwriting.
ENG 264. Introduction to Creative Writing and the Environment (5). An introduction to the creative writing genres: poetry, fiction, screenwriting, and creative nonfiction as they are applied to place and the environment. Examines the rhetorical forms and expectations of each in a workshop format. Course will be offered every year (Spring,

Summer). Prerequisites: ENG 101 and ENG 102.
Upon successful completion of this course, the student will be able to:
Explore a breadth of literary elements.
Recognize and discuss literary elements in a variety of genres and forms.
Practice using a variety of literary elements, developing enhanced communication and demonstrat ing a basic understanding of fundamental concepts within an academic field. Engage in workshop and other collaborative settings with class and PNW communities, empathizing and imagining others' experiences. Connect to writing life beyond the creative writing classroom.
Develop revision strategies and practices for their own work, and articulate best writing practices.
Reflect, revise, and synthesize their personal writing, engaging with cultural aesthetics as appropriate. Apply new knowledge to engage and connect with local communities, demonstrating compassionate leadership.

## ENG 265. Introduction to

Creative Writing as "Mindfulness, Health and Well-Being" (5). Students will study and write literature related to mindfulness, health and well- being, and revise their own work into a multigenre collection including poetry, prose, drama and fiction modeled on the readings. Course will be offered every year (Fall). Prerequisites: ENG 101 and ENG 102.
Upon successful completion of this course, the student will be able to:
Explore a breadth of literary elements. Recognize and discuss literary elements in a variety of genres and forms. Practice critical analysis of issues related to individual health in real-life problems in creative works, using tools of
the craft to develop your own approaches to individual and/or societal health Practice finding/evaluating health-related information in creative work and through your experience, observations, and writing (HWB-1). Evaluating the information in the work of others and your own will involve seeing it in a larger context--thus analyzing critical issues related to public health and societal well-being. Practice engaging in workshop and other collaborative settings with class members and healthor mindfulness-related representatives--thus empathizing with and imagining others' experiences. Develop revision strategies and practices for their own work, and articulate best writing practices
Reflect, revise, and synthesize their writing, engaging with cultural aesthetics as appropriate
Apply their new knowledge to engage and connect with local communities, demonstrating compassionate leadership.
ENG 267. Screenwriting
Fundamentals (4).
Introduction to the basic script format, the creative story and style elements, and the writing process steps for screenplays and teleplays. Focus on the narrative script development process from idea conception to first draft. COM 267 and
ENG 267 are cross-listed courses, students may not receive credit for both. Prerequisites: ENG 102 or FILM 250.
ENG 296. Individual Study (1-6).
ENG 298. Special Topics (16).

ENG 299. Seminar (1-5).
ENG 301. Rhetoric for Professional Writers (5). Study and practice in rhetorically effective workplace writing. Includes rhetorical theory, ethics, organizational contexts, and the study and practice of professional writing genres.

Prerequisites: ENG 101 and ENG 102.
Upon successful completion of this course, the student will be able to:
Identify and apply the rhetorical conventions of a variety of professional genres, including professional/business letters, memos, proposals, and emails.
Identify a variety of perspectives related to workplace writing. These perspectives include rhetorical, social, ethical, technological, and professional aspects of texts, documents, and other workplace writing contexts. Develop skills to deploy rhetoric in professional contexts that involve persuasion and knowledgemaking. They practice applying these skills to "real world" problems. Develop and demonstrate research strategies appropriate to workplace writing. Demonstrate presentation skills appropriate to workplace contexts.
Define and analyze examples of professional writing according to the theoretical foundations of the discipline. Demonstrate their understanding of the theoretical foundations of rhetoric and professional writing.
Demonstrate their ability to adjust style and voice for rhetorical effectiveness in professional writing genres.
ENG 302. Poetry and Poetics
(5). Offers practice in the interpretive reading of poetry, focusing on the elements of poetry and poetic theory. Prerequisites: ENG 101 and ENG 102 or equivalents. Upon successful completion of this course, the student will be able to:
Recognize the seven metrical feet and scan metrical poetry to determine stanza patterns, the meaning of variations, and other formal properties.

Identify the characteristics and conventions of major poetic forms.
Develop and apply criteria for evaluating poems.
Identify formal and intellectual differences in poems from different historical periods. Identify, interpret, and analyze the use of figurative language, tone, and other literary devices in poetry.
Identify and analyze common themes among a group of related poems.
ENG 303. Principles of
English Studies (5). Provides critical reading and writing strategies necessary to studies in English; introduces the expectations and requirements of the major. Prerequisite: ENG 101 and ENG 102 or equivalents.
Upon successful completion of this course, the student will be able to:
Recognize and employ contemporary critical assumptions and methods used in literature classes. Write formal and informal responses to literature that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretation. Identify themes, patterns, and formal features in literary texts. Employ the rhetoric of English Studies, including specialized vocabulary and appropriate evidence.
Demonstrate proficiency in literary research techniques and familiarity with library resources.
Demonstrate familiarity with English major and minor requirements and develop a plan for completing the major.
ENG 304. English Linguistics
(5). Students learn to perform linguistic analysis of aspects of English and to use linguistic concepts to examine literary texts.
Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of semantics, syntax, morphology, and phonology. Explain the processes underlying language acquisition and development. Apply knowledge of morphology, syntax, and syntactic style in the analysis of literary texts.
ENG 310. Technical Writing
(4). Practice in writing and editing technical reports.
Prerequisites: ENG 101, ENG
102 , and at least junior standing.
ENG 311. Business Writing
(3). Study and practice in effective business writing. Course content includes business writing genres, rhetorically effective writing in business contexts, professional writing style, and writing concisely and correctly. Prerequisites: ENG 102 or a direct transfer degree. Upon successful completion of this course, the student will be able to:
Recognize the rhetorical, organizational and stylistic characteristics in a variety of business writing genres. Demonstrate a mastery of specific genres for a variety of business writing contexts. Demonstrate the ability to select specific business writing genres and characteristics to match specific writing contexts. Analyze the relationship between the audience of a business document and the style and tone appropriate to that document.
Organize materials to match message with structure for readability.
Demonstrate mastery of expectations for business writing contexts including conciseness, cohesion, clarity and appropriateness. Generate audience analysis deliverables that help demonstrate the differences between writing for business audiences and writing for academic audiences.

Provide writing feedback and revision suggestions for others based on knowledge of business writing conventions and techniques.

## ENG 315. Visual Rhetoric

 and Document Design (5).This course surveys the basic theories and elements of visual rhetoric, as well as principles of document design. Students will gain practical experience using industry-specific design software. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisite: ENG 102.
Upon successful completion of this course, the student will be able to:
Describe theories of visual rhetoric.
Develop the vocabulary and rhetorical awareness to critique design elements based on audience, purpose, and goals.
Analyze how design principles affect readability, functionality, interpretation, and communication of information. Design rhetorically effective documents, for both print and web, by applying basic design principles.
Demonstrate basic technical skills required for industryspecific design software.
ENG 320. English Grammar
(5). A review of the concepts, terminology, and historical development of traditional grammar, the parts of speech and their functions in sentences, the elements of the sentence, and its various patterns.
Upon successful completion of this course, the student will be able to:
Describe the development of the English language through successive historical periods Recognize the part of speech and function of every word in a complex or compound sentence
Recognize and correct grammar and punctuation errors in student essays

Use their knowledge of traditional grammar to revise and edit their own writing Describe sentence patterns, sentence forms, and sentence types

## ENG 323. Writing and

Editing for Publication (5).
This class addresses writing for publication, prepares students with publication strategies, as well as examines what editors look for and what their job entails. Prerequisite: ENG 320. Upon successful completion of this course, the student will be able to:
Articulate criteria to assess effective writing.
Describe a method for offering feedback to authors.
Locate and explain common errors in usage, punctuation, and mechanics.
Use conventional proofreader's marks to correct common errors in print documents. Use software tools to correct common errors in electronic documents.
Explain the function of a stylebook.
Provide feedback to authors submitting print or electronic documents.

## ENG 330. African American

Literature (5). Study of
literature by African
Americans.
Upon successful completion of this course, the student will be able to:
Articulate in written and oral form an informed awareness of the socio-political and cultural history out of which African Americans wrote, and write, their works.
Demonstrate their knowledge of African American artistic and literary expressions, beginning with the oral tradition to contemporary literature.
Demonstrate their knowledge
of major writers (and some non-major written) and significant texts representing the different genres and periods in African American literature. Recognize, trace, and articulate the differences (as well as
similarities) in literary themes and approaches to literature between African American literary studies and traditional literary studies.
ENG 331. Latina/o
Literature (5). Study of literature by Latina/o writers. Upon successful completion of this course, the student will be able to:
Articulate an introductory
knowledge of the cultures and
histories of the specific
Latina/o groups represented in the course.
Demonstrate an ability to read, interpret, and analyze the literary works of Latinas/os in their historical and cultural contexts.
Recognize, trace, and articulate literary themes and concepts that appear in Latina/o literature: including changing definitions of national, regional, and personal identity, colonization, racism, the border, nativism, antiimmigration drives, assimilation, transculturation, the American Dream, the barrio, ethnic nationalism, feminism, migrations, borderlands, religion, and the family.
ENG 332. American Indian
Literature (5). Study of
literature by American Indians.
Upon successful completion of this course, the student will be able to:
Demonstrate their
understanding of the relationship of culture to literary expression, critique, and evaluation.
Demonstrate their knowledge of significant characteristics of American Indian literary traditions in terms of specific works.
Recognize, trace, and articulate recurring themes in American Indian literature relating to historical as well as cultural and societal issues, such as sense of place, family, love, migration and exile, gender, identity.
Demonstrate an ability to read closely, to interpret effectively,
and to analyze and synthesize literary works.
ENG 333. Asian American
Literature (5). Study of
literature by Chinese, Japanese,
Korean, Vietnamese, and other
Asian/American writers.
Upon successful completion of this course, the student will be able to:
Demonstrate an informed awareness of the socio-political and cultural history out of which Asian American writers wrote, and write, their works. Articulate recurring themes in Asian American literature relating to historical as well as cultural and societal issues, such as sense of place, family, love, migration and exile, gender, identity.
Analyze the influence of Asian culture and tradition on modem Asian American writers and their works.
Demonstrate an ability to read closely, to interpret effectively, and to analyze and synthesize literary works.
ENG 334. American Indian
Oral and Nonfiction

## Literature (5). An

examination of American
Indian oral and nonfiction
literature, including myth,
legend, oratory, ritual and
ceremony, and forms of
autobiography, including coup tales, boarding school narratives, etc.
Upon successful completion of this course, the student will be able to:
Differentiate between the forms of Indian oral and nonfiction literature, including, ritual and ceremony, creation stories, legend, oratory, and types of autobiography Describe and analyze recurring character archetypes, themes and motifs in American Indian myth and legend like the Trickster, Transformer, culture hero, the witch, etc
Demonstrate their knowledge of the rhetorical structure and function of Indian oratory and its role in Indian/ Western history and cultural conflict

Identify and characterize forms of Indian autobiography and describe the construction of Indian identity reflected in these forms
Demonstrate their knowledge of the roles of myth and legend and of ritual and ceremony in American Indian Culture and their influence on American Indian writers
Demonstrate an ability to read closely, to interpret effectively, and to analyze and synthesize literary works

## ENG 335. Women's

Literature (5). Examines women's literature in light of contemporary feminist literary theories. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Identify different types of feminist literary theory. Including commonalities and differences in assumptions Identify how feminist literary theories "revise" canonical texts and illuminate uncanonical texts, and how they revise traditional assumptions about the canon Identify how and which literary works support dominant ideologies, and undermine subvert ideologies. Also be able to identify how we evaluate subversion in texts from the past. Identify how literary works help us to understand commonality and differences among women of different classes, ethnic groups, etc. Identify what the term "woman writer" suggests, and how this relates to beliefs of how woman and men write differently. Also, how class and ethnicity may complicate this topic, and how women face being "silenced." Demonstrate an ability to read closely, to interpret effectively, and to analyze and synthesize literary works Identify beliefs about how women read differently than men, and what it means to read "as a women". Also, students
will be able to identify what it means for women to be "resisting readers" of male texts
ENG 342. Cinema Studies I: Early American Film History
(4). A history of the
development of narrative film as an art form and cultural medium from the 1800 s to the mid-20th century, with primary focus on Hollywood cinema.
FILM 342 and ENG 342 are cross-listed courses; student may not receive credit for both. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Synthesize and demonstrate mastery of the origins of American film, and its stylistic, thematic, cultural and aesthetic evolution from early silent cinema through the films of the mid-20th century.
Analyze the ways in which
American cinema both reflects and shapes national values and mores.
Evaluate the role and importance of the Hollywood studio system and the notion of stardom from their early manifestations to the mid-20th century.
Articulate evolution of film technology from silent cinema to mid-century motion picture techniques.
ENG 343. Cinema Studies II: Modern American Film History (4). A history of the development of narrative film as an art form and cultural medium from approximately 1960 to the present, with primary focus on Hollywood cinema. FILM 343 and ENG 343 are cross-listed courses; student may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Synthesize and demonstrate mastery of the evolving major trends, styles, themes,
directorial schools, and cultural thrust of American film from mid-20th century to the present.
Analyze the ways in which post-mid-20th century American cinema both mirrors and molds national values and ideological precepts.
Analyze the ways in which the studio system, the star system, the media, and other forces related to the industry impact cinematic output after mid20th century.
Summarize the major developments in cinema technology since mid-20th century.
ENG 344. Cinema Studies
III: Film Theory (5). A
focused study of major theories of cinema and the approaches and practice of film criticism.
ENG 344 and FILM 344 are cross-listed courses; a student may not recieve credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 250.
Upon successful completion of this course, the student will be able to:
Distinguish between the major film theories and critical approaches
Utilize key filmic terminology and critical vocabulary.
Assess major theoretical and critical practices as they relate to a body of film.
Write professional quality film reviews and analyses.

## ENG 347. Global

## Perspectives in Literature

(5). An introduction to contemporary non-western and postcolonial literature. Course will be offered every year (Fall, Spring, Summer). AHLiterature and Humanities (W). Prerequisites: sophomore standing or above and ENG
101 with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Represent in written and oral form, and through
interdisciplinary approaches, a
knowledge of the cultures and histories of the national and cultural groups in the nonWestern literature discussed. Interpret and analyze literatures of the global south to show how diversity, inequality or privilege interact with social, economic, and political power.
Identify major literary themes and concepts in selected culture such as the representations of individual and cultural identity, the concept of selfhood, gender relations, cultural difference/the clash of culture, revolution, colonialism, etc. Identify the processes that shape transnational relationships and global capital through interpretation and analysis of literary works. Write analytical papers on course reading applying interdisciplinary methods.

## ENG 353. History of

Narrative Film (4). A history of the development of narrative film as an art form and cultural medium, with primary focus on Hollywood cinema. ENG 353 and COM 353 are cross-listed courses; students may not receive credit for both. Prerequisite: FILM 250. Upon successful completion of this course, the student will be able to:
Demonstrate their knowledge of the history of the narrative motion picture from the silent era to the present, with attention to important narrative and visual styles, dominant genres, thematic trends, and directors' approaches. Demonstrate an understanding of the ways in which cinema reflects, assesses, reaffirms, and critiques culture, particularly American mainstream culture. Gain a comprehension of the Hollywood studio system and its influence on shaping cinema in the twentieth and twentyfirst centuries.
ENG 354. History of
Television (4). Historical survey of television as an
entertainment, information, and art medium. Emphasis on understanding the cultural, social, political, technological, and economic conditions of production; the examination of television as text itself; and
TV's impact on audiences. ENG 354 and FILM 354 are cross-listed courses; students may not receive credit for both. Prerequisites: either COM 201 or FILM 250.
Upon successful completion of this course, the student will be able to:
Understand chronology of history of television technology and programs in context of American society in the twentieth and early twentyfirst centuries.
Apply techniques of critical analysis to television programs as cultural texts.
Trace a specific issue of cultural or social impact as reflected in a particular genre or program example during a specific period in American history.
ENG 355. History of
Documentary (4). Survey of documentary history from 1895 to present. Focus on philosophy of documentary approach, overview of the most important topics and issues, and development of critical standards in the genre. ENG 355 and FILM 355 are crosslisted courses; students may not receive credit for both. Prerequisites: COM 201 or FILM 250.
Upon successful completion of this course, the student will be able to:
Trace the development of documentary from its origins in primitive cinema through its changes and applications in reaction to domestic and world events and to technological developments.
Develop a critical approach for examining the historical evolution of the documentary genre
Ability to juxtapose the historical development of documentary film/video,
technology and/or content/subject matter with the social context of production. Demonstrate knowledge of how the chronological development of documentary as a genre and a mode of expression has become a part of societal commentary and how documentary has shaped our sense of ourselves and the "other."
Identify and address questions germane to the field, including the distinction between fiction and nonfiction, the creation of truth and truths and the power relationships between documentarians and their subjects.
Identify and address questions germane to the field, including the formal components used in (re)constructing reality, and documentary's overall impact on history and culture.
ENG 357. Writing for Serial Media (4). Scriptwriting for the basic genres of serial television and the web. Includes study of serial script, structure, story, character development, and dialog. FILM 357 and ENG 357 are cross-listed classes, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 267 or ENG 267 and admission to the communication, English professional and creative writing or film major. Upon successful completion of this course, the student will be able to:
Recall and apply proper spelling, grammar, punctuation, and format for single-camera and multicamera television scripts. Evaluate and summarize strengths and weaknesses of a television pilot script.
Analyze a comedy program for story, characters, and style, and write a "spec" scene to be used in that program. Analyze a dramatic program for story, characters, style, and emotional through-line, and
write a "spec" scene to be used in that program.
Propose and pitch a concept for an original web series.
Write an episode for an
original web series.
ENG 360. Cinema Studies
IV: Survey of World Cinema
(5). An overview of world cinema, with attention to the national film cultures of important film-producing countries (such as India, France, Japan), and a comparison of international films with mainstream Hollywood cinema. ENG 360 and FILM 360 are cross-listed courses; a student may noy recieve credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 344 or ENG 344.
Upon successful completion of this course, the student will be able to:
Examine major styles, trends, themes, and directors of a range of world cinematic cultures.
Compare particular representative films from each of those countries. Evaluate how such films represent a window into the cultures that produced them. Summarize the ways various international filmmakers both utilize and challenge the traditions and aesthetic patterns of Hollywood film.
ENG 363. Shakespeare (5).
Intensive study of selected Shakespeare plays and poetry. May be repeated under a different subtitle up to 10 credits. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Explain the way that Shakespeare's works can be analyzed against the
Renaissance Intellectual, historical, and cultural background.
Identify and discuss
Shakespeare's themes,
concerns, and conceptions of the human subject.
Identify key elements of the genres Shakespeare wrote including comedy, tragedy, and
"problem play".
Interpret and analyze
individual plays.
ENG 364. Fiction Writing
(5). An introduction to the varieties of literary fiction being written today, the techniques and strategies for writing fiction, as well as developing criteria for evaluating the effectiveness of student stories. Course will be offered every year (Fall, Winter). Prerequisite: ENG 263 or ENG 264 or ENG 265. Upon successful completion of this course, the student will be able to:
Write dialogue, point of view, exposition, plot, characterization, and setting. Analyze published works of fiction in order to recognize elements of craft--e.g., use of setting, point of view, exposition, structure, plotting, summary, scenes, characterization, dialogue, humor, etc.
Identify different genres in fiction--e.g., minimalism, magical realism, metafiction, satire, etc., as well as the "shapes" of stories (narrative arcs, character portraits, formal experiments).
Articulate criteria for effective stories and evaluate the success of various authors.
Use revision techniques based on reviewers' and instructor's comments
Reassess their original work after oral performance.
ENG 365. Poetry Writing (5).
A workshop that introduces the varieties of forms, styles, voices, and strategies for writing poetry. Emphasizes reading professional models and the development and application of criteria for evaluating and revising poems. Course will be offered every year (Fall, Winter).
Prerequisite: ENG 263 or ENG 264 or ENG 265.

Upon successful completion of this course, the student will be able to:
Identify and analyze the variety of forms, styles, voices, and strategies for writing poetry Be able to assess drafts of poems and give practical advice about how to improve Compose original poetry that employs a variety of forms and strategies
Revise their work
Articulate and apply their own
aesthetic principles
ENG 366. Creative
Nonfiction Writing (5). A
workshop that considers the varieties and forms of the creative essay and its historical evolution. Emphasizes reading professional models, the uses of research, and the development and application of criteria for evaluating and revising essays. Course will be offered every year (Spring). Prerequisite: ENG 263 or ENG 264 or ENG 265.
Upon successful completion of this course, the student will be able to:
Learn about the conventions that govern creative nonfiction, what its expectations are, and bow professional writers have manipulated the genre Distinguish between varieties of creative nonfiction Learn about the overlapping elements common to poetry, fiction and creative nonfictione.g., setting, characterization, insight, lyricism, etc. Complete and submit a portfolio of revised work that demonstrates their repertoire of creative nonfiction writing skills.
Recognize the value of drafting, peer feedback and reflection as vital to the creative process Learn research strategies to generate and deepen their material
ENG 367. Narrative
Screenwriting (On reserve as of $9 / 16 / 14$ ) (4). Writing screenplays in combination with the study of models and techniques. COM 367 and

ENG 367 are cross-listed courses; students may not receive credit for both. Put on reserve 9/16/14. Will go inactive $8 / 24 / 17$. Prerequisites: COM 201 or FVS 250. Upon successful completion of this course, the student will be able to:
Identify the paradigmatic structure and features of a screenplay.
Demonstrate their understanding of appropriate film terminology. Develop a screenplay from story concept and premise. Identify and adapt the Writer's Guild screenplay format. Develop and build characters in a screenplay. Write individual scenes according to five basic principles including backstory, arena, character spines, story arc, and plot development. Write and revise a completed screenplay.

## ENG 368. Multi-Genre

Writing Workshop (5). This
online class will build creative writing skills in fiction writing, poetry writing, and creative nonfiction writing through writing exercises, reading of focused examples of published work, and individual and group workshops using discussion board. Course will be offered on on odd numbered years (Summer). Prerequisite: ENG
263 OR ENG 264 OR ENG 265.

Upon successful completion of this course, the student will be able to:
Identify and emulate poetry, short fiction and creative nonfiction terms and techniques.
Demonstrate knowledge of the conventions of poetry writing and prose writing. Demonstrate useful techniques for contributing to group workshop critiques. Practice specific writing skills in each genre studied. Identify and practice writing in hybrid forms.

Demonstrate the revision process in a series of create pieces.
ENG 369. Variable Topics Writing Workshop (5). A
workshop focusing on a specific genre or topic in creative writing. Emphasizes reading professional models and the development and application of criteria for evaluating and revising texts appropriate to the topic. May be repeated up to 10 credits under a different subtitle. Course will not have an established scheduling pattern (Summer). Prerequisite: ENG
263 or ENG 264 or ENG 265.
Upon successful completion of this course, the student will be able to:
Analyze works by
representative writers who focus on a specific topic or genre to understand the form and tools of the craft. Develop oral communications skills.
Assess drafts and give practical advice about how to improve them.
Develop revision/editing skills.
Use voice, imagery, tension, pacing, and placement of factual information as appropriate for the topic. Understand marketing strategies for the special topic.
ENG 371. Literature and
History I (5). Historical and critical studies in literature from the classical era through the Renaissance. May be repeated up to 10 credits under a different subtitle.
Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Explain the way a literary work can be analyzed and interpreted against the backgrounds of the literature of its particular period, citing several relevant authors for comparison Survey a literary movement or historical era within the ancient, medieval, or renaissance periods with references to canonical and
non-canonical texts as well as a variety of literary genres, relating the literary history of the period to concurrent political, cultural, intellectual, and aesthetic histories Identify specific literary movements, as well as the socio-cultural implications of those movements, within the ancient, medieval, or renaissance periods Explain ways in which literature contributes to our knowledge of a particular period by aligning itself with or by articulating a significant different from dominant disclosures
Demonstrate knowledge of representative texts from specific periods and/or movements
ENG 372. Literature and
History II (5). Historical and critical studies in literature from the mid-17th century through the mid-19th century. May be repeated up to 10 credits under a different subtitle. Prerequisites: ENG 302 and ENG 303. Upon successful completion of this course, the student will be able to:
Explain the way a literary work can be analyzed and interpreted against the background of the literature of its particular period, citing several relevant authors for comparison Survey a literary movement or historical era within the Modern period with reference to canonical and non-canonical texts as well as a variety of literary genres, relating the literary history of the period to concurrent political, cultural, intellectual, and aesthetic histories
Identify specific literary movements, as well as the socio-cultural implications of these movements, within the modern period Explain ways in which literature contributes to our knowledge of a particular period by aligning itself with or by articulating a significant
different from dominant
discourses
Demonstrate knowledge of representative texts from specific periods and/or movements
ENG 373. Literature and History III (5). Historical and critical studies in literature from the nineteenth century through the mid-twentieth century. May be repeated up to 10 credits under a different subtitle. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Explain the way a literary work can be analyzed and interpreted against the background of the literature of its particular period, citing several relevant authors for comparison. Survey a literary movement or historical era within the modern period with reference to canonical and non-canonical texts as well as a variety of literary genres, relating the literary history of the period to concurrent political, cultural, intellectual, and aesthetic histories.
Identify specific literary movements, as well as the sociocultural implications of those movements, within the modern period.
Explain ways in which
literature contributes to our knowledge of a particular period by aligning itself with or by articulating a significant difference from dominant discourses.
Demonstrate knowledge of representative texts from specific periods and/or movements.

## ENG 374. Literature and

 History IV (5). Historical and critical studies in literature from the 20th century through the present. May be repeated up to 10 credits under a different subtitle. Prerequisite: ENG 302 and ENG 303.Upon successful completion of this course, the student will be able to:

Explain the way a contemporary literary work can be analyzed and interpreted in the context of contemporary literature citing several relevant authors for comparison
Survey contemporary literature with references to canonical and non-canonical texts as well as a variety of literary genres, relating the literary history of the period to concurrent political, cultural, intellectual, and aesthetic histories
Identify specific contemporary
literary movements, as well as the socio-cultural implications of those movements
Explain ways in which
literature contributes to our knowledge of a particular period by aligning itself with or by articulating a significant difference from dominant discourses
Demonstrate knowledge of representative contemporary texts

## ENG 380. Studies in Drama

(5). Intensive study of representative examples of drama. ENG 380 and TH 380 are cross-listed courses; students may not receive credit for both. May be repeated up to 15 credits. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Identify the formal elements and generic conventions of drama, including plot, character, and scene, and explain how formal choices contribute to meaning. Compare and contrast dramatic works based on theme, genre, historical context, and/or cultural content.
Identify and explain the theatrical elements and conventions of drama and will be able to relate the material production of plays to historical and/or cultural conditions.
Understand and express the thematic concerns of plays as aesthetic works.

Write formal and informal responses to dramatic texts that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretations.
ENG 391. Workshop (1-5).
May be repeated for credit.
ENG 396. Individual Study
(1-6). May be repeated if subject is different.
ENG 397. Honors (1-12).
Prerequisite: admission to department honors program.
ENG 398. Special Topics (16).

ENG 399. Seminar (1-5). May
be repeated if subject is
different.
ENG 402. Writing Center
Theory and Practice (On reserve as of $9 / 16 / 15$ ) ( $1-5$ ).
Explore the benefits and techniques of one-on-one peer consulting. Study language skills and improve understanding of writing in various genres, contexts, and cultures. Consult with student writers in the University
Writing Center, observing others consultations, reflecting, and improving one-on-one skills. May be repeated for credit. Put on reserve 9/16/15. Will go inactive $8 / 24 / 18$. Prerequisite: ENG 102 with a grade of B or higher.
ENG 404. Advanced Technical Writing (5). Practice in designing, constructing, evaluating, and testing technical documents for specific purposes and organizational cultures. ENG 504 is taught online. ENG 404 and ENG 504 are layered courses; a student may not receive credit for both. Prerequisite: ENG 310. Upon successful completion of this course, the student will be able to:
Analyze organizational contexts
Analyze the ethical considerations involved in the technical communication Analyze the cultural considerations involved in technical communication

Use and improve appropriate conventions and formal elements
Construct arguments that are based on sound evidence and appeal to several audiences at once
Conduct research that can be used to support arguments Test, edit and revise designs and ideas in online documents Understand the differences necessary in writing for different levels of audience Work in an editor's role to improve the documents, presentations and critical thought of others Identify and incorporate cultural differences as they communicate with audiences from another culture
ENG 415. Critical Studies in American Literature (5). Intensive study of a group of texts focused by theme, author, theoretical approach, or social and historical context. Formerly ENG 411, students may not receive credit for both. May be repeated for credit under different subtitle. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Demonstrate advanced knowledge of literary and critical theories.
Respond to a range of secondary criticism and/or critical theory in their own writing.
Demonstrate proficiency in research methodologies. Identify the characteristic themes, techniques, and conventions of a representative group of texts in American literature focused by theme, author, theoretical approach, or social and historical context. Develop a thesis-driven argument that is focused by specific interpretive or analytical questions, that is supported by evidence from multiple texts, and that synthesizes multiple perspectives.

Apply theoretical approaches to literary texts at an advanced level.
ENG 417. Critical Studies in World Literature (5).
Intensive study of a group of texts focused by theme, author, theoretical approach, or social and historical context. Formerly ENG 414, students may not receive credit for both. May be repeated for credit under a different subtitle. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Demonstrate advanced
knowledge of literary and critical theories.
Respond to a range of secondary criticism and/or critical theory in their own writing.
Demonstrate proficiency in research methodologies. Identify the characteristic themes, techniques, and conventions of a representative group of texts in World literature focused by theme, author, theoretical approach, or social and historical context.
Develop a thesis-driven argument that is focused by specific interpretive or analytical questions, that is supported by evidence from multiple texts, and that synthesizes multiple perspectives.
Apply theoretical approaches to literary texts at an advanced level.
ENG 418. Literary and
Critical Theory (5). An
investigation of the theory and practice of various critical perspectives and strategies as they inform the study of literary texts. Prerequisites: ENG 302 and ENG 303. Upon successful completion of this course, the student will be able to:
Write formal and informal responses to literary and critical theory that demonstrate engagement, reflective thought, effective inquiry, perception of
patterns in language features, and responsible generalization. Recognize and critique the argument underlying critical writings.
Apply selected theories to specific literary works.
Explain the basic premises of selected theories.
Relate critical perspectives to the history of western ideas.
ENG 419. Critical Studies in British Literature (5).
Intensive study of group texts focused by theme, author, theoretical approach, or social and historical context. Formerly ENG 410, students may not receive credit for both. May be repeated for credit under a different subtitle. Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of literary and critical theories. Respond to secondary criticism and/or criticism theory in their own writing.
Demonstrate proficiency in research methodologies. Identify the characteristic themes, techniques, and conventions of a representative group of texts in English literature focused by theme, author, theoretical approach, or social and historical context. Develop a thesis-driven argument that is focused by specific interpretive or analytical questions, that is supported by evidence, and that synthesizes multiple perspectives.
Apply theoretical approaches to literary texts.

## ENG 422. Teaching Young

Adult Literature (5). A study of literature written for middlelevel and early-high-school students. This class is required prior to student teaching. Prerequisites: EFC 340 and PSY 314 and ENG 302 and ENG 303, and admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:

Read and respond to a broad range of award-winning texts written specifically for young adult readers in multiple genres, including novels, short stories, poetry, and essays. Plan and present lessons describing how literary elements such as plot, character, theme, setting, tone, point of view, and figurative language relate to literary meaning in texts for adolescents.
Develop strategies for teaching young adult literature that engage students (orally, visually, and in writing) in interpreting, evaluating, and responding critically to print and non-print texts.
Demonstrate the ability to read, write, and communicate proficiently.
Identify and evaluate the contributions of current and past authors of young adult literature.
Participate in small \& large group discussions identifying current issues regarding the writing, reading, and study of adolescent literature and examining and referencing professional literature from periodicals related to the field.

## ENG 423. History of the

English Language (5). In this course, students examine the systematic, evolutionary nature of language by focusing on the development of the English language. Course will be offered on odd numbered years (Spring).
Upon successful completion of this course, the student will be able to:
Identify phonetic sound segments and sound classes of Modern English using the International Phonetic Alphabet.
Demonstrate knowledge of major historical events impacting the development of
the English language.
Demonstrate knowledge of major phonological and grammatical changes in Old English, Middle English, and Modern English.

Apply knowledge of the sound systems, inflectional systems, and syntactic systems in the analysis of literary texts from Old, Middle, and Modern English.
ENG 429. Teaching Writing in Middle-level Humanities
(5). Teacher candidates prepare as teachers of writing for the middle grades. Candidates align standards, content pedagog, and developmentally responsive teaching in middle level humanities. Course requires intensive writing in the humanities across Common Core genres.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of reading, writing, and communication as developmental processes. Demonstrate knowledge of current state standards (EALRs, GLEs) and [CCSS: Common Core State Standards] in writing. Demonstrate knowledge of the writing process, its components (prewriting, drafting, revising, editing, publishing), and its recursive, interactive, and collaborative nature. Demonstrate knowledge of the traits of effective writing (ideas, organization, voice, word choice, sentence structure, conventions, and presentation).
Demonstrate knowledge of the role and interaction of audience, purpose, and form. Demonstrate knowledge of current state standards (EALRs, GLEs, CCSS) in communication.
Demonstrate knowledge of the interrelationships of reading and writing, and listening and speaking.
Model meta-cognition through the use of think-alouds and read-alouds.
Integrate higher level thinking skills into lesson designs. Model and scaffold metacognitive processes for a wide variety of tasks and text.

Model and scaffold the writing process, its components (prewriting, drafting, revising, editing, publishing), and its recursive, interactive, and collaborative nature.
Model and scaffold the traits of effective writing (ideas, organization, voice, word choice, sentence structure, and conventions).
Demonstrate a variety of ways to incorporate opportunities for students to use oral communication and presentation.
Support discussion of controversial issues by emphasizing and modeling the importance of evidence, objectivity, active listening, and mutual respect. Demonstrate ongoing and long-term monitoring of student progress in social studies and language arts content and skills.
Document and communicate students' progress toward the GLEs and [CCSS] for social studies, reading, writing, and communication using multiple sources of evidence (qualitative and quantitative evidence).
Interpret assessment results to inform instruction.
ENG 430. Teaching Writing in the Secondary School (5). Theory into practice seminar on teaching writing, including writing process strategies, content pedagogy, instructional planning, assessment, best practices, and standards-based instruction. Co-requisites: Must enroll concurrently in ENG 488 and ENG 492.
Prerequisites: EFC 340, 28 credits of English courses. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the writing process, its components, and its recursive, interactive, and collaborative nature.
Demonstrate how mode \{expository, persuasive, and narrative) and form shape writing.

Recognize and evaluate the traits of effective writing (e.g. development of ideas, organization, voice, word choice, sentence structure, and conventions).
Apply current state standards \{GLEs) in reading, writing, and oral communication. Read and apply relevant educational theory and research findings \{from books, peer reviews, journals, reports, classroom data, and proceedings of professional conferences, videotapes, electronic and non-electronic databases) to classroom practices.
Explain the need for continued professional development to remain current in best practices as a practitioner of reading, writing, speaking, and listening.
Demonstrate the ability to read, write, and communicate proficiently.
Apply the knowledge of the English language, reading processes, the process of writing, literature, non-print media, theory, and research findings to design and implement instruction. Model higher level thinking skills and scaffold metacognitive processes for a wide variety of literacy tasks. Create reading, writing, and discussion opportunities which promote respect for and support of individual differences (e. g., ability, culture, ethnicity, gender, language, and race).
Provide students with strategies that enable them to write effectively for a variety of audiences and purposes using the writing process. Use current state standards (GLEs) to evaluate student performance in writing.
ENG 431. Principles and Practices of TESOL (5).
Focuses on research, theories, and approaches relevant to the teaching of English to speakers of other languages. ENG 431 and ENG 531 are layered courses; students may not
receive credit for both.
Prerequisite: ENG 304 or ENG 320 or by permission. Upon successful completion of this course, the student will be able to:
Plan and modify instruction to assure learner engagement and achievement.
Explain how to create supportive environments that promote respectful classroom interactions and engage all learners in purposeful language learning.
Differentiate between
formative and summative assessment strategies used to
promote the continuous intellectual and linguistic development of each learner. Incorporate in lesson plans evidence of knowing who learners are and understanding how their communities, heritages, and goals shape learning and expectations of learning.
Demonstrate proficiency in social, business/workplace or academic English, with attention to the four traditional skills: speaking, listening, reading and writing. Articulate processes by which learners acquire a new language in and out of classroom settings. Design lessons to help learners acquire the language they need to successfully communicate in the subject or content areas
they want/need to learn about.
ENG 432. Phonetics and
Phonology (5). Study of
English phonetics and phonology as well as pronunciation pedagogy. Prerequisites: ENG 304 and ENG 320.
Upon successful completion of this course, the student will be able to:
Learn international phonetic symbols and use them to transcribe English speech and describe the English sound system.
Analyze stress, rhythm, phonological processes, phonological prominence, and intonation in connected speech.

Apply knowledge and skills to areas of own interest in interlanguage phonology of English.
ENG 434. Discourse Analysis
(5). Study of discourse theory and research methodology. Prerequisite: ENG 304.
Upon successful completion of this course, the student will be able to:
Discuss topics in discourse analysis, using appropriate terminology.
Describe approaches to discourse analysis, noting the contexts for which they were developed.
Analyze various types of spoken and written discourse. Apply skills and knowledge to own areas of interest.
Apply skills and knowledge to own areas of interest.

## ENG 435. Linguistics,

Literature, and TESOL (5).
Linguistic approaches to
literature with an emphasis on poetry and prose. Prerequisites: ENG 304 and ENG 320.
Upon successful completion of this course, the student will be able to:
Distinguish linguistic form from literary form and characterize their complementary nature. Describe linguistic approaches to the language of literature (poetry, prose, and drama). Conduct linguistic analysis of literary texts.
Apply knowledge of linguistics and literature to areas of own interest.
ENG 437. Pedagogical
Grammar and Discourse (5).
Study of English grammar, grammar instruction, and discourse analysis.
Prerequisites: ENG 304 and ENG 320.
Upon successful completion of this course, the student will be able to:
Analyze complex linguistic structures, attending to the structures themselves, their meanings, and the pragmatic conditions governing their use. Articulate how attention to linguistic form, meaning, and
use can both contribute to the linguistic development of ESOL students and stimulate the students' own professional growth.
Demonstrate connections between theory and practice. Analyze and evaluate ESOL grammar textbooks or proficiency-assessment tools. Discuss topics in discourse analysis, using appropriate terminology.
ENG 453. Studies in Fiction
(5). Extensive reading and analysis of prose fiction. May be repeated up to 15 credits under a different subtitle. Prerequisites: ENG 302 and ENG 303, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify the formal elements and generic conventions of fiction and explain how formal choices contribute to meaning. Compare and contrast works of fiction based on theme, subgenre, historical context, and/or historical context. Analyze and discuss the development of a genre in relation to specific historical, material, or cultural conditions. Discuss and analyze the thematic concerns of fictional works.
Write formal and informal responses to fictional works that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretation. Apply theoretical approaches to the analysis of fictional texts.

## ENG 454. Studies in

Nonfiction (5). Extensive reading and analysis of literary nonfiction. May be repeated up to 15 credits under a different subtitle. Prerequisites: ENG 302, ENG 303, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify the formal elements and generic conventions of
literary nonfiction and explain how formal choices contribute to meaning.
Compare and contrast works of nonfiction based on theme, subgenre, historical context, and/or historical context. Analyze and discuss the development of a genre in relation to specific historical, material, or cultural conditions. Discuss and analyze the thematic concerns of works of nonfiction.
Write formal and informal responses to works of nonfiction that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretation.
Apply theoretical approaches to the analysis of nonfictional texts.
ENG 455. Studies in Poetry
(Put on Reserve 9/16/16.) (5).
Intensive study of
representative example of
poetry. May be repeated up to
15 credits. (Put on Reserve
9/16/16. Last taught in 2013.
Will go inactive $8 / 24 / 19$.)
Prerequisites: ENG 302 and ENG 303.
Upon successful completion of this course, the student will be able to:
Identify the formal elements and generic conventions of poetry and explain how formal choices contribute to meaning. Compare and contrast poetic works based on theme, genre, historical context, and/or historical context.
Analyze and discuss the development of a genre in relation to specific historical, material, or cultural conditions. Discuss and analyze the thematic concerns of poetic works.
Write formal and informal responses to works of nonfiction that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretation. Apply theoretical approaches to the analysis of poetry.

ENG 456. Studies in Rhetoric
(5). Extensive reading, analysis, and practice in rhetorical theories and approaches. ENG 456 and ENG 556 are layered courses; students may not receive credit for both. May be repeated up to 15 credits under a different subtitle. Course will be offered every year (Fall). Prerequisite: ENG 301.
Upon successful completion of this course, the student will be able to:
Demonstrate a foundational understanding of key rhetorical thinkers and theorists from a range of historical periods or from a range of theoretical approaches.
Analyze and critique discursive objects using rhetorical theories.
Demonstrate a close understanding of a small selection of rhetorical theories or approaches.
Participate in discussions of current case studies or critical analyses involving rhetorical analysis and/or criticism. Undergraduate students will demonstrate a knowledge of scholarly conversations surrounding current case studies or critical analyses that deploy rhetorical analysis or criticism.
Undergraduate students will demonstrate the ability to develop analytical arguments at the advanced undergraduate level.
ENG 460. Cinema Studies V: Advanced World Cinema (5).
Building on the foundation of Survey of World Cinema, this course focuses on world cinema in the transnational age, exploring recent developments in film and how they reflect global concerns and cinematic movements. FILM 460 and ENG 460 are cross-listed courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: FILM 360 or ENG 360.

Upon successful completion of this course, the student will be able to:
Synthesize elements of one or more international film cultures, including historical evolution; aesthetic features; cultural, social and political influences; thematic explorations; and directorial schools and trends.
Analyze and critique particular films that are representative of the relevant international cinema.
Assess trans-global impacts and the ongoing discourse with Hollywood cinema.
Estimate the impact of colonialism and post-colonial forces on world cinema.

## ENG 461. Studies in Film

and Culture (5). An examination of how American films construct and appropriate images of American racial, ethnic, and cultural minorities. Course explores and compares images of minorities created by the dominant culture to those created by minority filmmakers. May be repeated for up to 10 credits. ENG 461 and FILM 461 are cross-listed courses; a student may not receive credit for both. Upon successful completion of this course, the student will be able to:
Relate the history of a minority culture (the peoples of a specific race, ethnicity or culture) in film as subjects, actors and creators. Analyze "film image" in stereotype formation and social constructs of "self" vs. "other." Critically examine the portrayal of a specific race, ethnicity or culture in film. Juxtapose the dominant discourse of the minority culture with the emerging use of film by members of that culture as part of a larger struggle for "cultural relevance and survivance" Critically discuss of how minority filmmakers \& actors are reframing the discourse of film making.

ENG 462. Studies in Film and/or Television Genres (5).
An examination of a film and/or television genre: history, aesthetics, cultural context, social significance, and critical methodologies. May be repeated up to 10 credits. FILM 462 and ENG 462 are cross-listed courses; student may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: FILM 250.

Upon successful completion of this course, the student will be able to:
Describe the theory of genre as it applies to film and/or television
Examine cinematic works/ television series of a single genre such as film noir, horror, animation, musical, etc.
Articulate an overview of the dominant stylistic, thematic, and ideological features of a cinematic or television genre. Analyze, critically evaluate, and prepare critical reviews of films/TV series as characteristic of a specific genre.
Recognize and articulate the cultural and social contexts that shape film genres in various historical periods, including issues of diversity and gender, American national identity, and international perspectives
ENG 463. Studies in the Film
Auteur (5). In-depth examination of the major cinematic works of a selected auteur director, such as Hitchcock, Chaplin, Kurosawa, W. Allen, Zhang Yimou, etc., with attention to major stylistic and thematic practices. May be repeated for credit. Prerequisite: FILM 250.
Upon successful completion of this course, the student will be able to:
Gain understanding of the theory of auteurship and a broad overview of the set of major American and international auteur directors. Gain an overview of the dominant stylistic, thematic,
and ideological features of the works of select major American and international auteur directors.
Gain an in-depth understanding of the cinematic works of a single auteur director such as Hitchcock, Kurosawa, Chabrol, John Ford, Zhang Yimou, Chaplin, Woody Allen, Bergman, etc.
ENG 464. Advanced Fiction Writing (5). Intensive workshop further developing the techniques of writing literary fiction: weaving together character development, plot, dialogue, exposition, setting, and thematic structure. Emphasizes the development of criteria for evaluating and improving literary fiction, as well as reading professional models to learn technique. ENG 464 and ENG 564 are layered courses; a student may not receive credit for both. Prerequisite: ENG 364. Upon successful completion of this course, the student will be able to:
Compose original literary fiction that demonstrates a thorough knowledge of character development, dialogue, exposition and setting
Experiment with point of view, diction, and syntax to achieve a distinctive voice
Apply revision techniques modeled in the text to clarify and deepen original passages and scenes Analyze contemporary collections of stories and/or novels, taking advantage of visiting writers particularly, to consider how such books are structured and arranged, and read individual stories, analyzing them from a writer's point of view, considering tools of the craft
Develop oral presentation skills, both in literary performances and in group and/or individual presentations Analyze the literary market and develop strategies for publication

ENG 465. Advanced Poetry
Writing (5). Intensive workshop further examining the genres within poetry, as well as experimenting with forms, discursive structures, and voice; revising for economy and precision; exploring metrical effects. ENG 465 and ENG 565 are layered courses; a student may not receive credit for both. Prerequisite: ENG 365. Upon successful completion of this course, the student will be able to:
Identify and analyze poetic genres.
Compose and experiment with forms, discursive structures, and voice in original works of poetry.
Contribute effectively and meaningfully to workshop discussions of creative works-in-progress.
Apply revision techniques to the development of quality poems.
Demonstrate familiarity with
the structures and conventions of contemporary poetry books and develop criteria for comparative analysis of contemporary creative work. Develop strategies that lead to publication success.
ENG 466. Advanced Creative Nonfiction Writing (5). Intensive workshop further developing the techniques of writing creative nonfiction: researching, editing, assimilating features of fiction and poetry, and experimenting with structure, voice, and style. Reading professional models to learn technique. ENG 466 and ENG 566 are layered courses; a student may not receive credit for both. Prerequisite: ENG 366.
Upon successful completion of this course, the student will be able to:
Deepen their understanding of creative nonfiction by studying the works of selected professional writers, with sustained attention on at least one booklength work.

Develop their oral presentation skills by presenting their knowledge of the craft and/or a particular creative nonfiction writer or work and/or each other's work. Continue to develop research skills.
Develop critical skills by responding to each other's drafts.
Recognize and submit their work to appropriate literary markets.
Learn how to articulate the effectiveness of "voice" and will learn to develop their own individual voices, modulating tone and experimenting with irony as appropriate.
Develop their revision/editing skills to become their own best editors.
Learn to perform their work.
ENG 467. Advanced Narrative Screenwriting (Put on reserve 9/16/2014.) (4).
Intensive workshop oriented toward techniques for creating or rewriting an original or adapted script for film/TV. Emphasizes narrative development, detailed script analysis and character motivation. Creation of a feature-length script for film or TV using the craft of the screenwriter to convey mood, energy, character, structure, and intent. Put on reserve 9/16/2014. Last taught in 2010.
Will go inactive $8 / 24 / 17$.
Prerequisites: either COM 309 or ENG 367.
Upon successful completion of this course, the student will be able to:
Demonstrate their knowledge of appropriate film terminology.
Demonstrate an ability to utilize the "tools" of script analysis and identify what worked and what didn't work in the narrative.
Apply skills developed in class to convey mood, energy, character, narrative structure and dramatic intent.
Write or rewrite an original or adapted feature length
screenplay for film or television.

## ENG 468. Contemporary

 Writers Colloquium (5).Genre specific seminar (poetry or fiction) with writing workshop element, featuring a schedule of visiting writers. Students will read work by visiting writers, develop critical thinking about craft, attend readings, explore contemporary publishing issues, and write both analytical papers and creative work. May be repeated up to 20 credits. ENG 468 and ENG 568 are layered courses; a student may not receive credit for both. Prerequisites: ENG 364 or ENG 365.
Upon successful completion of this course, the student will be able to:
Identify and analyze forms and structures of creative writing (fiction, creative nonfiction, and poetry).
Incorporate critical mentoring and feedback into the revision of creative writing.
Apply and further develop genre craft techniques to the creation of poetry, fiction, or creative nonfiction.
Further develop criteria to use in comparative analysis of contemporary creative writing. Contribute effectively to discussions of creative work-in-progress.
Develop an understanding of the publication process--from initial creation to manuscript submission.
Identify and analyze education and career options in creative writing.
Analyze literary readings by visiting writers.
Contextualize pieces of contemporary creative writing within current critical discourses.
ENG 472. Research Methods for Workplace Writers (5).
This course introduces students to a variety of workplace writing research methods and practices. Formerly ENG 312, students may not receive credit for both. ENG 472 and ENG

572 are layered courses; a student may not receive credit for both. Prerequisites: ENG 301 and ENG 310.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of a variety of workplace writing research methods.
Compare and contrast the advantages and limitations of a variety of workplace writing research methods.
Propose research using one or two specific workplace writing research methods.
Design research projects using commonly used written report documents.
Demonstrate presentation skills
appropriate to a workplace writing research project.
Demonstrate collaboration skills.
Conduct ethical low-risk research with human
participants.
ENG 473. Grant Writing:
Theory and Practice (5). This advanced course introduces students to the theoretical and practical aspects of the grant writing process, especially as it pertains to funding opportunities for education and non-profits. ENG 473 and ENG 573 are layered courses, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: ENG 301 or ENG 310.

Upon successful completion of this course, the student will be able to:
Demonstrate regular
participation and interaction as
an active and engaged
member of our learning
community.
Engage in
a documented writing process
that incorporates revision in
response to instructor and peer response feedback.
Identify and implement appropriate research methods for identifying individual or organizational needs, locating appropriate sources of funding,
and fulfilling RFP and grant application requirements. Analyze grant and proposal audiences and learn how to fulfill a specific rhetorical purpose by adapting writing and document design principles (style, tone, graphics, page design) for these audiences. Demonstrate and articulate an understanding of theoretical issues facing professional grant writers and their clients. Recognize and construct the basic elements of a grant proposal: cover letters or forms, abstracts/executive summaries, tables of contents, narratives incorporating problem statements, purpose statements, goals and objectives, and budgets (if required).
ENG 476. Integrated Humanities at the Middlelevel Grades (5). This course focuses on integrated instructional strategies and methods for working with middle-level (grades 4-9) students in the humanities (English, reading, social studies, history, civics, economics, and geography) content areas. EDEL 476 and ENG 476 are cross-listed; students may not receive credit for both. Prerequisites: ENG 320 and admission to the teacher education or hold a valid Washington teaching certificate.
Upon successful completion of this course, the student will be able to:
Utilize Reading and Language
Arts theories and research related to communication through reading, writing, speaking, listening, viewing, and thinking.
Align reading skills through the learning progressions to state and national standards. Develop integration projects that Incorporate literature, language arts, and social studies (history, geology, economics, civics, \& social studies).

Integrate literacy experiences In all learning environments. Develop learning progressions that utilizes meta-cognition reading strategies. Utilize current standards and the essential components of reading fluency, phonics, vocabulary \& comprehension as they apply to the humanities for the young adolescent.
ENG 480. Survey of Linguistics (Put on reserve $9 / 16 / 15$.) (4). Linguistic concepts and the relation between linguistics and other fields of study. Open to seniors and graduate students only. ANTH 480 and ENG 480 are cross-listed courses; students may not receive credit for both. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: senior standing.
ENG 484. Manastash:
Literary Editing (3). Students
will select and edit manuscripts for publication in the Manastash Literary Journal. May be repeated up to 6 credits. Prerequisites: ENG 301 and ENG 303.
Upon successful completion of this course, the student will be able to:
Demonstrate teamwork and oral communication skills in the context of literary editing. Evaluate poetry, fiction, drama and creative nonfiction for a particular readership. Demonstrate knowledge of professional literary magazine editing processes. Apply methods of professional correspondence in a literary magazine context.
Apply principles for organizing creative work in a literary magazine.

## ENG 485. Manastash:

Literary Design and
Production (2). Students will
select and edit manuscripts for publication in, as well as design and construct, the Manastash literary journal. May be repeated up to 4 credits. Prerequisites: ENG 301 and ENG 303.

Upon successful completion of this course, the student will be able to:
Design a print literary magazine that meets professional design standards for four-color print production. Demonstrate knowledge of basic standards of final copyediting and proofreading for a professional publication. Gain a working knowledge of commonly used desktop publishing programs wed to produce professional documents. Demonstrate ability to collaborate by participating in literary arts events.
ENG 488. Teaching Portfolio
(2). Students prepare an end-of-program E-Portfolio which illustrates their mastery of major program and professional sequence competencies. Grade will either be $S$ or $U$. Prerequisite: current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Demonstrate how reading, writing, speaking, listening, viewing and thinking are interrelated.
Display an understanding of the role of technology in communication. Use major sources of research and theory, e.g. books, periodicals, reports, classroom data, proceedings of professional conferences, videotapes, electronic and nonelectronic data bases, to understand the relationship between research and practice. Examine, evaluate, and select resources such as textbooks, other print materials, video, film, recordings, and software which align with the English language arts curriculum and support continued professional growth.
Develop interdisciplinary teaching strategies and materials.
ENG 489. Senior Colloquium
(2). Students prepare an end-
of-major portfolio which illustrates their competence in interpreting and composing. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring).
Prerequisite: 48 credits of English courses.
Upon successful completion of this course, the student will be able to:
Revise their work in a variety of genres, one of which will be a literary analysis. Other genres may include creative and technical writing, rhetorical analysis, and/or linguistics.
Incorporate sources as appropriate, using MLA conventions.
Practice articulating constructive feedback on peer work to develop their sense of audience, increase their repertoire of revision and editing strategies, and work collaboratively. Demonstrate grammatical and rhetorical proficiency. Reflect on their own revision process and evaluate the development of their writing skills.

## ENG 490. Cooperative

Education (1-12). An
individualized, contracted field
experience with business, industry, government, or social service agencies. Requires a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for a total of 12 credits. Grade will be either $S$ or $U$. Prerequisite: prior approval.
ENG 491. Workshop (1-10). May be repeated for credit. ENG 492. Practicum (3). Practicum accompanying intensive training in the pedagogy of writing presented in ENG 429 and ENG 430. Students connect teaching, learning, and assessment strategies to current research and practice and apply ELA endorsement competencies to specific learning situations. Grade will either be S or U . Co-requisite: ENG 429 or ENG
430. Prerequisites: completed 15 ENG credits for ML majors and minors or 28 ENG credits for English LA Teach majors, and full admission to the Teacher Certification Program, and current WSP/FBI
fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Apply research based instructional strategies and assessments.
Demonstrate a respect for the worth and contributions of all learners.
Engage in reflective practice. Use research models to reflect upon their own teaching.
ENG 493. Online Practicum
(3-5). Practical application of multi-modal writing and editing skills. Prerequisites: ENG 301 and ENG 303 and ENG 323 and permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate multi-modal writing and editing skills. Apply multi-modal writing and editing skills in a multi-genre publishing context. Collaboratively plan a largescale multimodal publishing project.
Demonstrate multi-modal collaboration skills to support the creation, design, and editing of student writing for an online audience.
Evaluate and revise writing
from a wide range of professional and creative genres.
Apply knowledge of writing as appropriate to professional and publishing contexts.

## ENG 496. Individual Study

 (1-6).ENG 497. Honors (1-12).
Prerequisite: admission to department honors program. ENG 498. Special Topics (16).

ENG 499. Seminar (1-5). ENG 100T. Transitional English (4). A study of academic written English with review of sentence and
paragraph-level skills, such as word usage, sentence structure, organization, grammar, and mechanics with a reading component to improve comprehension of academic English; students will learn to write unified, coherent paragraphs and short compositions. Credits will not be allowed toward meeting bachelor's degree requirements. Upon successful completion of this course, the student will be able to:
Explore assumptions, opinions, facts, and reasoning of others, using critical reading strategies that include an understanding of text organization and purpose.
Use text marking and other critical reading strategies to demonstrate an understanding of tone, purpose, and organization. Write unified and coherent paragraphs and short compositions, following standard conventions of spelling, punctuation, and grammar.
Be able to write essays which contain a thesis or central idea (an-assertion), supported by appropriate evidence from texts and developed according to an organizing principle. Demonstrate the ability to summarize main ideas and supporting details from other texts.
Use appropriate strategies to generate ideas, organize, draft, revise, edit, and proofread their own writing.

## ENST 201. Earth as an

Ecosystem (5). Introduction to the concept of our planet as a finite environment with certain properties essential for life and will explore dynamic nature of the earth's physical, chemical, geological, and biological processes and their interrelated "systems". Course will be offered every year (Fall, Spring). NS-Patterns and Connections Natural World. Upon successful completion of this course, the student will be able to:

Describe the process of science and how it informs our knowledge of the natural world Analyze and interpret information to assess humanenvironment relationships Analyze current research to develop and defend positions on environmental issues Explain the interrelationships between biotic and abiotic systems on earth Model how a system changes when its components change
ENST 202. Environment and Society (5). The physical and cultural dimensions of environmental problems with particular emphasis given to the interaction between ecosystems, basic resources, population dynamics, and culture. Course will be offered every year (Fall, Summer). NSApplications Natural Science. Upon successful completion of this course, the student will be able to:
Define and recognize the effects of human population increase on food production, environmental quality, and natural resource supply; evaluate ways that world population has altered the environment and biosphere Demonstrate and differentiate various viewpoints and tradeoffs about how to handle controversial environmental issues, such as: fertilizer use, water management and pollution, waste management and storage, population control, and air pollution Distinguish and contrast the roles of technological innovations in relationship to population dynamics and resource consumption ENST 298. Special Topics (16).

ENST 299. Seminar (1-5).
May be repeated if subject is different.

## ENST 300. Applied

Environmental Sciences (5).
Students will collect, analyze, and synthesize original field data in natural and social sciences on environmental issues relevant to global and
local communities. Formerly ENST 210, students may not receive credit for both. Three hours lecture and three hours laboratory per week. Prerequisites: ENST 201 or ENST 202.
Upon successful completion of this course, the student will be able to:
Collect and analyze field data from natural and behavioral sciences.
Interview stakeholders concerning class project topic. Assess public attitudes on topic related to class. For example, attend public hearings, city council meeting, etc.
Survey a broad scope of environmental issues relevant to today's world.
Relate identified problem to local and world scale.
ENST 303. Environmental Management (5).
Development of attitudes and perceptions of our environment. Examination of the economic, political, and legal mechanisms and philosophical perspectives useful in managing the environment. Prerequisites:
ENST 201 or ENST 202.
Upon successful completion of this course, the student will be able to:
Develop an understanding of the practical applications and theoretical aspects of environmental management systems.
Gain an appreciation of the
technical, geopolitical, and economic aspects of natural resource management.
Become familiar with applied strategies, terminologies, and technical aspects of resource management so that he or she may understand technical data and how resource decisions are made.
Become a better-informed citizen who can take a leadership position when discussions arise dealing with land and resource management issues.
Demonstrate written and oral communication skills.

ENST 304. Environmental Methods and Analysis (5). Introduction to qualitative and quantitative methods in the social and natural sciences with emphasis on practical application to a variety of examples in the environment. Three hours lecture and three hours laboratory per week. Prerequisite: ENST 210. Upon successful completion of this course, the student will be able to:
Distinguish between data and inference.
Identify best analytical tool to be used for a particular environmental problem. Validate significance of data through error analysis. Communicate effectively about analytical tools in a discipline not directly related to theirs. Discuss the advantages and disadvantages of quantitative versus qualitative analytical tools and identify situations for which each type of analysis is appropriate
ENST 310. Energy and
Society (5). Through classroom and field experience, students will examine society's use of and dependence upon energy. Students will become more discerning citizens, able to take part in local, national, and global energy discussions. Course will be offered every year (Fall). NS-Applications Natural Science (W).
Prerequisite: sophomore standing or above.
Upon successful completion of this course, the student will be able to:
Describe and explain the technical, geopolitical, socioeconomic, and environmental aspects of energy resources and energy systems.
Interpret literature about energy issues with a goal of illustrating the multifaceted impacts that energy resources have on the built and natural environment Analyze different energy systems from multiple perspectives to model
geopolitical factors that impact on the economics and
sustainability of energy production and consumption Analyze information about social, economic, political, and environmental effects of energy use to construct and defend positions on energy policy
ENST 330. Environmental
Leadership and Advocacy
(5). Examines environmental groups, leadership models, and methods of environmental advocacy. Prerequisite: junior standing or above. Upon successful completion of this course, the student will be able to:
Identify the characteristics of social movements to critically examine the question whether environmentalism is a 'movement' and if so, to examine its goals, principles, and ideologies.
Identify multiple theories of leadership and ascertain whether the requirements for excellence in environmental leadership differ from the requirements of for excellence in leadership in general Describe the role of interest groups and non-governmental organizations in our society-the pervasiveness, proliferation, and effectiveness of these groups in influencing public policy in environmental and natural resource management. Describe the public hearings/meeting process and identity strategies to effectively organize and use the public hearings process to the participant's advantage. Identify and describe the common functions performed by environmental and natural resource leaders in an environmental organization that comprise transactional leadership.
Effectively use the Freedom of
Information Act (FOIA) to
obtain information for a campaign.
Design an environmental campaign.

Demonstrate competency in the tasks performed by environmental advocates.
ENST 360. Environmental Justice (5). Explores the concept of environmental justice, cases of environmental injustice, and environmental justice movements. Focus on the U.S., with some attention to comparative cases in other countries and regions, and global issues. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Recognize and explain causal influences of colonialism, commodification of land and labor, and capitalism in environmental and social justice problems/crises Identify and describe roles of policy-making, regulation, and law in health and environmental protection Distinguish concerns, objectives, and strategies of environmental justice activists and compare and contrast them with those of environmental movement activists Observe, describe, and explain particular environmental justice cases Demonstrate influences of class, race, ethnicity, and gender on how environmental problems impact people and communities
Propose and evaluate potential strategies for environmental justice activists and their communities
Summarize and assess achievements of the environmental justice movement and identify and describe emerging challenges as natural and political environments change
ENST 396. Individual Study (1-6). May be repeated if subject is different.
ENST 397. Honors (1-12). Prerequisite: admission to department honors program. ENST 398. Special Topics (16).

ENST 399. Seminar (1-5). May be repeated if subject is different.
ENST 444. Environmental Policy Formulation (4).
Students will work together in interdisciplinary teams to formulate and justify policy measures they think appropriate to meet some environmental problem investigated. Prerequisites:
ENST 201 or ENST 202, and ENST 303.
Upon successful completion of this course, the student will be able to:
Describe the policy process in the U.S. and identify the variables that influence environmental policy outcomes.
Identify the steps in a rationalcomprehensive policy analysis framework.
Identify a range of environmental policy instruments (e.g., regulation, tradable permits, taxes, subsidies, legal instruments) and articulate their strengths and limitations as applied to environmental problems. Identify and describe the multifaceted dimensions of a variety of environmental "problems"
(e.g., climate change, endangered species protection, energy development). Formulate an environmental policy that attempts to resolve an environmental problem.

## ENST 455. Environmental

Literature (3). Survey of literary works that thematically explore human relationships with place and environment. Sampling of various themes and genres, with a focus on Pacific Northwest.
Upon successful completion of this course, the student will be able to:
Read and to savor a sampling of some of this country's finest creative writing
Appreciate the variety and depth of aesthetic reaction to the environment
Understand the historical development of American attitudes toward nature

Come to terms with your own feelings about the natural world
Freely express your own relationship with nature through the writing of poetry Elucidate the inherent cultural bias of human-environment relationships
View the environmental debate within the framework of political ecology See that ultimately, humans construct the concept of nature as a dynamic ground
ENST 460. Environmental
Law (5). Introduction to the content of U.S. environmental law and the principal legal approaches to deal with environmental problems including common-law, statutory, regulatory, and economic-incentive systems. ENST 460 and GEOG 445 are equivalent courses; students may not receive credit for both. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify the variety of sociopolitical drivers present and the principal methods of creating legislative change. Identify and explain the economic, social, and political factors that influence laws and administrative rules.
Assess significant legislative articles, and identify administrative gaps using legal analysis.
Describe the diffusion and adaptation of environmental laws effectively using concepts taught in the course.
ENST 487. End-of-Major
Capstone (1). Portfolio review, career planning and program evaluation activities. Must have senior standing and intention to graduate in coming year. Grade will be S or U . Upon successful completion of this course, the student will be able to:
Prepare a professional presentation of their strengths, both written and oral, to be
given to future employers or graduate schools.
Create connections with potential employers and formulate a plan for seeking employment.
Reflect on their strengths and weaknesses as potential employees and how they relate to their experience at CWU. Evaluate their academic experiences in the environmental studies program at CWU, both in the classroom and outside of it.

## ENST 490. Cooperative

Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This
contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit.
Grade will either be S or U .
ENST 491. Workshop (1-6).
May be repeated for credit.
ENST 495. Senior Research
(3-5). Independent student research in environmental studies project under supervision of faculty sponsor. By permission. May be repeated for credit up to 12 credits.
Upon successful completion of this course, the student will be able to:
Create and design an independent research project in environmental studies based on the scientific method that addresses a current knowledge gap.
Ability to design and implement sound, scientific procedures to collect empirical data to answer research question(s).
Use accepted methods of analyses to determine whether the data collected answers the research questions. Use rationality and logical inference to reach sound conclusions about the contribution, including strengths and limitations, of
their research contribution to science.

## ENST 496. Individual Study

(1-6).
ENST 497. Honors (1-12).
Prerequisite: admission to department honors program.
ENST 498. Special Topics (16).

ENST 499. Seminar (1-5).
ENTP 287. Applied Product Development (5). This course focuses on learning the concepts and skills needed to generate a marketable innovation by taking student teams through their first four steps of product development process for their own potentially successful product/service. May be repeated up to 10 credits. Course will be offered every year (Fall, Winter, Spring). Formerly MGT 287, students may not receive credit for both. Prerequisite: MGT 200 or permission.
Upon successful completion of this course, the student will be able to:
Practice and use qualitative (ethnographic methodology) and quantitative (psychometric methodology) to hypothesize needs and preferences of a particular market segment. Apply their understanding of social network and cultural properties of homophily, bricolage, technological and social diffusion to observe these phenomena as antecedents and consequents of product development. Hone a propensity for entrepreneurial thinking via dimensions such as hope, resiliency, effectual thinking and self efficacy for entrepreneurial activities. Utilize the concepts and skills related to institutional theory and research methodology to observe a population of individuals, identify a need in those people's eyes, develop prototypes and evaluate them with benchmarks meaningful to their target populations.

## ESL 050C. Oral

Communication 1 (4). Oral

Communication 1 is a beginning level course designed to develop skills necessary to function in an academic environment. The class introduces the basics of asking and answering simple questions, naming objects, giving locations, and telling time. Students will participate in simple conversations. Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate
fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.
Demonstrate appropriate
vocabulary usage in oral communication.
ESL 050G. Grammar 1 (4) Grammar 1 is a beginning level course to develop basic grammar skills. Students will be introduced to the simple present, present progressive, and simple past tenses, the use of contractions, and yes/no questions.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate grammar usage in both oral and written communication Identify and correct common grammatical errors in own writing and speaking
ESL 050R. Reading 1 (4).
Reading 1 is a beginning level course designed to develop reading skills and build vocabulary.
Upon successful completion of this course, the student will be able to:
Apply reading skills to comprehend and respond to reading passages and novels. Demonstrate level appropriate vocabulary knowledge to comprehend reading passages and novels.
ESL 050W. Writing 1 (4). Writing 1 is a beginning level course designed to introduce basic writing skills. Students will practice writing simple
sentences and about self, family, and everyday routines. Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.
ESL 060C. Oral
Communication 2 (4). Oral
Communication 2 is a high-
beginning level course designed to develop skills necessary to function in an academic environment. Students practice conversations, telling stories, describing schedules, and giving directions. Students develop listening skills such as note-taking and listening for the main ideas.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.
Demonstrate appropriate vocabulary usage in oral communication.
ESL 060G. Grammar 2 (4). Grammar 2 is a high-beginning level course to develop basic grammar skills. Students will be introduced to basic verb tenses and grammatical structures, compound sentences and complex sentences.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate grammar usage in both oral and written communication Identify and correct common grammatical errors in own writing and speaking
ESL 060R. Reading 2 (4)
Reading 2 is a high-beginning level course designed to
develop reading skills and build vocabulary.
Upon successful completion of this course, the student will be able to:
Apply readings skills to comprehend and respond to reading passages and novels. Demonstrate level appropriate vocabulary knowledge to comprehend reading passages and novels.
ESL 060W. Writing 2 (4).
Writing 2 is a high beginning level course designed to introduce the structure of academic writing commonly found in American colleges and universities. Students will practice writing simple sentences, and later will begin writing short paragraphs using simple connectors and transitions to indicate the order of events.
Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.

## ESL 070C. Oral

Communication 3 (4). Oral
Communication 3 is an intemediate level course designed to develop skills necessary to function in an academic environment. In additional to practicing conversations and telling stories, students give prepared and impromptu speeches. Students also develop listening skills such as note-taking and summarizing.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.

Demonstrate appropriate vocabulary usage in oral communication.
ESL 070G. Grammar 3 (4). Grammar 3 is an intermediate level course to develop basic grammar skills. Students will be introduced to more complex verb tenses and grammatical structures, compound sentences and complex sentences.
Upon successful completion of this course, the student will be able to:

Demonstrate level appropriate grammar usage in both oral and written communication Identify and correct common grammatical errors in own writing and speaking
ESL 070R. Reading 3 (4).
Reading 3 is an intermediate
level course designed to develop reading skills and build vocabulary.
Upon successful completion of this course, the student will be able to:
Apply readings skills to comprehend and respond to reading passages and novels. Demonstrate level appropriate vocabulary knowledge to comprehend reading passages and novels.
ESL 070W. Writing 3 (4).
Writing 3 is an intermediate level course designed to practice the academic writing commonly found in American colleges and universities. In this class, paragraphs are practiced with focus on content, form, and editing. The academic essay is introduced and students are expected to write simple, connected five paragraph essays on a range of topics.
Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.

ESL 080C. Oral
Communication 4 (4). Oral
Communication 4 is an upperintemediate level course designed to develop skills necessary to function in an academic environment. Students give prepared and impromptu speeches on academic topics. Students also develop listening skills such as note-taking and summarizing of academic lectures.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.
Demonstrate appropriate vocabulary usage in oral communication.
ESL 080G. Grammar 4 (4).
Grammar 4 is an upperintermediate level course to develop more complex grammar skills. Students will be introduced to more advanced verb tenses and grammatical structures, compound sentences and complex sentences. Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate grammar usage in both oral and written communication Identify and correct common grammatical errors in own writing and speaking
ESL 080R. Reading 4 (4).
Reading 4 is an upperintermediate level course designed to develop reading skills and build vocabulary. Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.

ESL 080W. Writing 4 (4). Writing 4 is an upper intermediate level course designed to practice the academic writing commonly found in American colleges and universities. In this class the academic essay is reintroduced with focus on content, form, editing, and rhetorical style. Students are expected to write clear, detailed, well organized and well developed academic essays (cause and effect and persuasive). Students are also expected to summarize and synthesize opposing points of view and respond appropriately. Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.
ESL 090A. Academic Skills
Preparation (4). Academic Skills is an advanced English as a second language course. This course provides strategies to improve speaking and listening skills necessary for college study. Students will learn to participate effectively in a variety of academic situations including discussions, lectures, and student study groups Upon successful completion of this course, the student will be able to:
Apply listening skills to comprehend and respond to complex academic lectures, presentations, and
conversations
Demonstrate comprehension of vocabulary from the academic word list
Identify appropriate services on campus for various needs Demonstrate the use of appropriate register with professors and classmates

ESL 090C. Oral
Communication 5 (4). Oral
Communication 5 is an advanced level course designed to develop skills necessary to function in an academic environment. Students give prepared and impromptu speeches on academic topics. Students also develop listening skills such as note-taking and summarizing of academic lectures.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.
Demonstrate appropriate vocabulary usage in oral communication.
ESL 090R. Reading 5 (4).
Reading 5 is an advanced level course designed to develop reading skills and build vocabulary.
Upon successful completion of this course, the student will be able to:
Demonstrate level appropriate fluency and accuracy in speaking.
Apply listening skills to comprehend and respond to lectures, presentations, and conversations.
Demonstrate appropriate vocabulary usage in oral communication.
ESL 090T. Test Preparation
(4). This course is to improve your performance on either the TOEFL iBT or the IELTS test by learning test-taking strategies and improving your overall proficiency in the English language. The skills for handling each of the four areas: speaking, listening, reading, and writing will be practiced.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of test taking skills.

Apply level appropriate writing skills to academic writing. Apply readings skills to comprehend and respond to reading passages and novels. Demonstrate level appropriate fluency and accuracy in listening and speaking.
ESL 090W. Writing 5 (4).
Writing 5 is an advanced level course designed to practice the academic writing commonly found in American colleges and universities. In this class the academic essay is reintroduced with increased focus on content, form, editing, and rhetorical style. Students are expected to write about complex academic topics using research methods. Students are also expected to accurately summarize and analyze opposing views, use paraphrasing, concessions and rebuttal techniques.
Upon successful completion of this course, the student will be able to:
Apply level appropriate writing skills to personal and academic writing.
Demonstrate level appropriate vocabulary usage in written communication.
Demonstrate level appropriate grammar usage in written communication.

## ESL 100AR. Academic

Research (2). This course is part of the UESL Conditional Admission for Graduate Studies program. This course will help students develop an understanding of the standards for scholarship, develop basic research skills and strategies, and understand academic honesty and digital citizenship. Students who take this class will not receive credit towards degree requirements.
Permission of department.
Course will not have an established scheduling pattern (Spring, Summer).
Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R and ESL90W and ESL900C and either

ESL90T or ESL90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Co-requisites: ESL 100CC and ESL 100LS and ESL100 RW and ESL 100RV. Upon successful completion of this course, the student will be able to:
Compare and contrast international and American academic standards for scholarship.
Choose from various information databases and formulate search strategies. Evaluate resources and select material following best practices of academic honesty, digital citizenship, and plagiarism in American academics.
Employ effective research strategies. Compose and write elements of a research paper.
ESL 100CC. Academic
Classroom Culture (1). Academic Classroom Culture
Preparation is an advanced English as a second language course. This course provides strategies to improve the skills necessary for college study. Students will learn to participate effectively in a variety of academic situations. Students who take this class will not receive credit towards degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL 90R and ESL 90W and ESL 90OC, and either ESL 90T or ESL 90A); or recieved TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL 100RW and ESL 100RV and ESL 100LS and ESL 100AR. Upon successful completion of this course, the student will be able to:
Participate effectively in a variety of academic situations. Apply time management skills appropriately to the task.

Apply knowledge of plagiarism avoidance to writing projects and presentations. Identify appropriate services on campus for various needs. Interact with appropriate register with professors and classmates.
Employ ethical behavior both in academic life as well as outside of class.
Participate in community service and/or civic engagement.

## ESL 100LS. Academic

 Listening and Speaking (3).Academic Listening and Speaking is an advanced level course designed to develop the listening and speaking skills necessary to function in an academic environment. Students who take this class will not receive credit toward degree requirements.
Permission of department.
Course will not have an established scheduling pattern (Spring, Summer).
Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R and ESL90W
and ESL90OC and either ESL90T or ESL90A); or recieved TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL 100CC and ESL 100RW and ESL 100RV and ESL 100AR.
Upon successful completion of this course, the student will be able to:
Retell and summarize information from a lecture or listening passage. Synthesize and respond to lecture information. Utilize critical thinking skills. Engage in advance note taking. Deliver a prepared, purposeful presentation based on information from lectures or other information sources.
ESL 100RV. Academic Reading and Vocabulary (3).
Academic Reading and Vocabulary is an advanced level course designed to develop reading skills and
build vocabulary at the college level in preparation for graduate study. Students who take this class will not receive credit towards degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R, ESL90W, ESL90OC, and either ESL90T or ESL90A); or recieved TOEFL 71 iBT or higher, or IELTS 6.0 or higher. Corequisites: ESL100CC, ESL100RW, ESL100LS, and ESL100AR.
Upon successful completion of this course, the student will be able to:
Apply reading skills to comprehend and respond to academic reading passages. Utilize critical thinking skills. Comprehend vocabulary from the Academic Word List.
ESL 100RW. Research Writing (3). Research Writing
is a college level course designed to practice the academic writing commonly found in American colleges and universities. Students who take this class will not receive credit toward degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R,
ESL90W, ESL90OC, and either ESL90T or ESL90A); or recieved TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL100CC, ESL100RV, ESL100LS, and ESL100AR.
Upon successful completion of this course, the student will be able to:
Apply advanced writing skills to academic writing assignments.
Utilize critical thinking skills. Identify critical information for a particular issue and
synthesize that information in written prose.
Integrate multiple sources into a written project in a meaningful and relevant way.

## ETS 296. Individual Study

(1-6).
ETS 298. Special Topics (16).

ETS 299. Seminar (1-5).
ETS 325. Race/Ethnicity,
Class and Gender in
Education (5). An
examination of the educational significance of race/ethnicity, social class, and gender. Focus on intersectionalities of race/ethnicity, social class and gender in education both historically and in contemporary contexts from sociological perspectives. Course will be offered on odd numbered years (Spring). Upon successful completion of this course, the student will be able to:
Interpret and employ key
elements of intersectionality
theory in regards to educational
issues centering on
race/ethnicity, class and gender.
Define, summarize, and
analyze historical issues and concerns facing American Education with regard to race, class, and gender. Understand and apply theoretical models of education such as cultural capital and habitus as related to race/ethnicity, class, and gender.
Analyze and interpret the current issues confronting education and how issues of intersectionality (race, class, and gender), are demonstrated in these issues.
Understand, operationalize, and employ theoretical concepts from social reproduction and intersectionality theory.

## ETS 339. Muslims and

Muslim Americans (5). An
examination of the experiences of Muslims in America. Focus on variations within the Muslim world, the history of Muslim immigration to

America, and the discrimination and prejudice experienced by Muslim Americans.
Upon successful completion of this course, the student will be able to:
Define, analyze, and
summarize the history and geographic and ideological diversity of Muslim communities across the globe. Demonstrate a capacity to analyze the forces that created the ideological diversity and compare and contrast these ideologies.
Define, analyze, and summarize the history and evolution of Muslim communities within the United States.
Demonstrate a capacity to analyze the forces that contributed to the formation of Muslim communities in America (through immigration) as well as the emergence of Black Muslims.
Define, analyze and summarize the nature of Muslim immigrant diversity as well as the social, political and economic issues confronting Muslim communities in America.
ETS 350. Survey of Chicano Studies (Put on Reserve 9/16/16.) (5). A historical, economic, and political survey of the Chicano experience in the U.S. from 1540 to the present with regional emphasis on the American Southwest. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.)
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the social science concepts relevant to understanding the social system within the United States.
Examine the social and political development of Mexican American in a historical and contemporary context to understand their quest for equality.

Demonstrate knowledge of the role that ethnic and political goals play in the development of Chicano/a and Latino/a politics.
Develop analytical skills and communicate key information in comprehending, writing, and discussing the social development of Chicano/as and Latino/as in the U.S.
Develop knowledge regarding the contemporary issues faced by Latino/as, Chicano/as.

## ETS 354. Minority

Experiences (5). Explanations
will be identified for institutional racism common to the history and character of American minorities. ETS 354 and SOC 354 are cross-listed courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Recognize the main points in minority-white relationships. Recognize the historical legacy of racism.
Compare white Americans, African Americans, Native Americans, Asian Americans and Latino Americans regarding socio-economic characteristics and power. Identify the basic questions and issues in the area; of race and ethnicity.
Identify the specific policy implications of theoretical and practical research in the area. Have the opportunity to develop critical thinking skills.
ETS 396. Individual Study
(1-6). May be repeated if subject is different.
ETS 397. Honors (1-12).
Prerequisite: admission to department honors program.
ETS 398. Special Topics (16).

ETS 399. Seminar (1-5). May be repeated if subject is different.
ETS 446. Sociology of Immigration (5). This course will serve sociology and ethnic studies students by covering the topic of immigration, its impact on the people immigrating, as well as the
citizens of the country they are immigrating to. ETS 446 and SOC 446 are cross-listed; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify the various factors (economic, social, political) affecting immigration to America in the modern age (post-1965).
Identify the unique factors that compelled varying ethnic/racial and religious groups to immigrate to America. Identify how the sociological perspective addresses the issue of immigration in modern America.
ETS 490. Contracted Field
Experience (1-12). An educational plan designed to integrate classroom study with planned, supervised, and evaluated employment experience linking academic programs with students' career goals and interests. By permission. May be repeated for credit. Grade will either be S or U.
ETS 491. Workshop (1-6).
May be repeated for credit.
ETS 496. Individual Study (1-6).
ETS 497. Honors (1-12).
Prerequisite: admission to department honors program.

## ETS 498. Special Topics (1-

 6).ETS 499. Seminar (1-5).
ETSC 101. Modern
Technology and Energy (5).
A study of how basic scientific principles are applied daily in industrial societies through a survey of transportation, energy and power, construction, and consumer product technologies. Formerly IET 101, students may not receive credit for both. NSApplications Natural Science. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:

Examine technology from multiple perspectives. Evaluate different technologies covered in this course and their impact on our society. Detail the process that drives technological progress (new and emerging), and articulate its social, political, economic, and ethical implications. Determine the relationship between technology and its scientific basis.
Develop an awareness of how basic scientific and mathematical knowledge is used to solve technical problems.
ETSC 145. Machine Woodworking (4). Machine and tool operations, wood technology, designing and construction principles, finishing methods and materials. Two hours lecture and four hours laboratory per week. Formerly IET 145, students may not receive credit for both.
ETSC 160. Computer-Aided Design and Drafting (4). Hands-on training in the operation of AutoCAD's design and drafting software system with emphasis on features, limitations, and dimensioning strategy. Students are in class/lab 6 hours per week. Formerly IET 160, students may not receive credit for both. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Demonstrate how computeraided drafting techniques can be applied.
Describe the common computer-aided drafting methods and their application. Define steps in computer-aided drafting.
ETSC 161. Architectural Computer Aided Design (3).
Formerly IET 161, students may not receive credit for both.
ETSC 201. Bio-related Technologies (Put on reserve 9/16/17) (5). Agriculture, medicine, fuel production, waste management, and other
technologies in which living organisms are used to solve problems and modify products and systems. Includes problemsolving, design, and research activities for understanding bio-related technologies. Formerly IET 201, students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Define and categorize biorelated technologies.
Develop problem solving skills to solve design challenges. Study the different types of waste and their effects on the environment.
Develop oral and written presentation skills.
Categorize current technological trends with the ethical and human views of various age groups.
Gain knowledge in a variety of bio-related technologies such as: health and medicine, agriculture, waste management, fuel production, and bioethics.
ETSC 210. Energy Sources and Power (Put on reserve $9 / 16 / 15$.) (3). A study of the various forms of power, its generation, application, and implications for technology and a technological society. Formerly IET 210, students may not receive credit for both. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
ETSC 215. Small Engines
(Put on Reserve 9/16/16.) (4).
Maintenance and repair of oneand two-cylinder internal combustion engines. Two hours lecture and four hours laboratory per week. Formerly IET 215, students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.) Prerequisite: IET 210.

ETSC 241. Programmable Logic Controller
Applications (4). A study of programmable logic controller concepts, components,
systems, programming and applications. Formerly IET 373, students may not receive credit for both. Two hours lecture and four hours laboratory per week. Course will be offered every year (Winter and Spring).
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to construct basic relay logic circuits
Demonstrate an ability to interface pushbuttons, indicators, and sensors to the PLC
Demonstrate an ability to program the PLC using ladder logic, structured text, or function block diagram programs
Demonstrate an ability to configure and control variable frequency drives

## ETSC 242. Instrumentation

(4). Analysis of
instrumentation systems including data collection, transmission and conversion, sensor operation, signal conditioning, and application techniques. Formerly IET 242, students may not receive credit for both. Three hours lecture and two hours laboratory per week. Course will be offered every year (Fall). Co- or Prerequisites: EET 221 and EET 221LAB.
Upon successful completion of this course, the student will be able to:
Use virtual instruments in the LabVIEW environment. Use LabVIEW to acquire data. Determine sensor operation from manufacturer specifications. Convert sensor data to a form that would be friendly to a system operator.
Verify data conversions using arithmetic formulas derived from the sensor specifications. Communicate assumptions, results (data), and conclusions about technical information in a coherent and prescribed format.

ETSC 260. NURBS Modeling
(4). Hands-on training in the production of 3-D models using Rhinoceros' NURBS (non-uniform rationale Bsplines) geometry. Formerly
IET 260, students may not receive credit for both. Prerequisite: ETSC 160. Upon successful completion of this course, the student will be able to:
Will be able to create NURBS based graphic objects.
Create models with precision using coordinate input, and object snaps.
Modify curves and surfaces with edit commands.
Export and import models to and from different native file formats.
Render a model.
Display any portion of a model and plot with a simple layout view.
Accurately and efficiently solve problems using NURBS based modeling.
ETSC 265. Three-
dimensional Modeling (4).
Design of parts, assemblies, and working drawings using 3D solid modeling software, basic theory of threaded fasteners and gears, wielding representation, geometric dimensioning, and tolerancing. Two hours lecture and four hours laboratory per week. Formerly IET 265, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring). Prerequisites: ETSC 160 or declared electronics engineering technology majors. Upon successful completion of this course, the student will be able to:
Demonstrate the ability to produce 3D models using SolidWorks software under a time constraint Demonstrate the ability to understand basic design concepts and terminology as explained in class and online Instructional Videos Demonstrate the ability to produce design documents including engineering drawings
and similar documents while conforming to engineering standards
ETSC 277. Introduction to
Robotics (4). An applied introduction to robotics with focus on programming preconfigured robotic systems using LabVIEW. Formerly IET 277, students may not receive credit for both. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to:
Demonstrate an ability to design, analyze, and implement controls systems for robotics utilizing graphical programming.
Demonstrate an ability transfer automated robotic control systems between programming platforms.
Demonstrate an ability to design, construct, and analyze modular robotic systems. Demonstrate an ability to code in the LabVIEW environment to interface sensors and motors.
Explain sensor operation from manufacturer specifications.

## ETSC 290. Cooperative

Education (1-15). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . Formerly IET 290, students may not receive credit for both. ETSC 296. Individual Study (1-6). Formerly IET 296, students may not receive credit for both.
ETSC 298. Special Topics (1-
6). Formerly IET 298, students may not receive credit for both.
ETSC 299. Seminar (1-5)
Formerly IET 299, students may not receive credit for both.
ETSC 301. Engineering
Project Cost Analysis (4).
Techniques of economic cost analysis applied to engineering
projects: interest, present value, annual equivalence, rate of return, payout criteria, and break even modeling. Formerly IET 301, students may not receive credit for both. Four hours of lecture per week. Course will be offered every year (Fall, Winter, Spring and Summer). Prerequisite: MATH 153 or permission of instructor. Upon successful completion of this course, the student will be able to:
Analyze economic engineering project decisions using present worth analysis techniques.
Use Excel to present data and graphing alternatives. Evaluate project alternatives, which are mutually exclusive, using incremental analysis methods to determine the best economic option.
Examine engineering
alternatives based on sensitivity and breakeven analysis.
Evaluate equipment replacement and repair alternatives based on cost data and the economic factors of personnel and clean and green alternatives.
ETSC 311. Statics (4). Introductory statics including forces and equilibrium. Principles of structures including trusses, beams, frames, machines and friction. This course consists of four hours of lecture each week. Formerly IET 311, students may not receive credit for both. Course will be offered every year (Fall, Winter).
Prerequisites: PHYS 111 or PHYS 181. Pre or Corequisite: MATH 173. Upon successful completion of this course, the student will be able to:
ABET SO 3b: Students will understand the relationships between metric and US units and have the ability to work in both arenas. A foundation for problem solving techniques is developed and students will be able to apply analytical skills in engineering statics, the study of forces on objects at rest.

ABET SO 3b: Demonstrate an understanding of vectors and be able to express and resolve vectors in two and three dimensions.
ABET SO Mc: Draw a free body diagram and solve for unknown forces in two and three dimensions for particle and rigid body systems. Demonstrate analytical skills by solving for unknown forces. ABET SO 3b: Students will be able to perform vector operations of dot and cross product and use these principals to solve for unknown forces in three dimensions. Demonstrate the ability to use the concepts of moments and couples in qualitative and quantitative applications.
ABET SO 3b: Apply the method of joints and sections to determine the forces in a truss's members. Obtain the ability to determine joint reactions of simple frames or machines.
ABET SO 3b: Students will understand the concept of friction and analyze rigid bodies subjected to dry friction.
ABET SO 3b: Understand the concepts of center of gravity, center of mass, and the centroid. Be able to calculate the center of gravity and centroid of shapes.
ABET SO 3b: Be able to conceptualize fluid pressure and calculate hydrostatic forces.
ETSC 312. Strength of Materials (4). Strength of materials, including stress analysis of axially loaded members, torsional members, beams, and indeterminate structures. Formerly IET 312, students may not receive credit for both. Prerequisite: ETSC 311.

## ETSC 353. Pattern Making

(Put on reserve 9/16/15.) (4).
Two hours lecture and four hours laboratory per week. Formerly IET 353, students may not receive credit for both. Put on reserve 9/16/15. Will go
inactive $8 / 24 / 18$. Prerequisite: MET 257.
ETSC 380. Quality Control
(4). Provides the foundation necessary to understand and apply statistical quality control techniques, product reliability procedures, and the management aspects of quality assurance. Formerly IET 380, students may not receive credit for both. Prerequisites: BUS 221 or MATH 311 or PSY 362 or permission.
Upon successful completion of this course, the student will be able to:
Solve problems using basic quality improvement techniques.
Use fundamental statistical concepts to construct and interpret control charts for variables to determine manufacturing process capabilities.
Use fundamental concepts of probability to construct and interpret control charts for attributes to determine product quality.
Use attribute and variable concepts to determine appropriate acceptance sampling systems.
Discuss the basic concepts of ISO 9000 and ISO 14000.
ETSC 385. Product Design and Development (4). Methodology for the design and development of industrial and commercial products from conceptual stage to product introduction into the marketplace. Project based instructional structure. Three hours lecture per week. Formerly IET 385, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Explain and use the design, production, manufacturing, distribution organizational structure and functional relationships in the development or enhancement of a product.
Use the terminology and vernacular of design, production, manufacturing,
distribution to convey the new or enhanced product criteria. Develop a detailed design and development plan of a simple product utilizing recognized engineering procedures and practices.
Demonstrate competence in using engineering analytical methods in the development of a simple product.
Produce well documented product designs and analyses that are based on accepted industrial practices. Research methods of design and production of sample products.

## ETSC 389. Technical

Presentations (3). Written and oral presentations based on technical reference material utilizing the library, technical society publications, and the Internet. Formerly IET 389, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Find and read technical research databases and make decisions on what information is most useful in presenting an idea and influencing decisions. Write about a subject using technical data to present an idea or influence a decision. Present an idea based on technical data to inform or influence the audience. Demonstrate an ability to promote an organization using technical information. Demonstrate an ability to develop promotional print material for an approved subject of interest.
ETSC 396. Individual Study (1-6). May be repeated if subject is different.
ETSC 397. Honors (1-12).
Prerequisite: admission to department honors program.
ETSC 398. Special Topics (16). Formerly IET 398, students may not receive credit for both.
ETSC 399. Seminar (1-5).
May be repeated if subject is different.

## ETSC 430. Methods of Teaching Technology

Education (3). This course examines teaching techniques, content, and program requirements as they relate to teaching exploratory technology education in the public schools. Formerly IET 430, students may not receive credit for both. Prerequisite: current WSP/FBI fingerprint clearance, and conditional or full admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Present a demonstration of classroom technology and other industrial equipment usage. This may include computers, computer software, Mobi, digital video equipment, and/or use of industrial materials, tools, and machines. Prepare a video presentation on an approved topic. This will include learning the operation of a digital video camera and editing software available in Black Hall.
Update oneself on a variety of the latest methodological trends in technology education, safety, and business/industry training.
Update oneself on the appropriate forms and program approval procedures required for technology education program approval from OSPI. Select and construct teaching aids or devices to assist in the learning and communication process.
Organize a course into units and write a lesson plan for each unit of study.

## ETSC 433. Technology

Education Laboratory
Planning (3). Planning, management, and safety of school shops and labs in STEM related fields. Formerly IET 433, students may not receive credit for both. Prerequisite: current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Describe how heating, lighting, ventilation, sound and color
affect the learning environment.
Specify machine and equipment layout to reflect concepts of quiet/loud, clean/dirty, traffic paths, and group instruction.
Design and construct a tool holder that helps promote "organization." Select tools, machines, and other equipment based on established criteria such as budget constraints, need, space availability, etc. to supply a technology education facility. Describe techniques of classroom management and organization.
Acquire knowledge associated with student leadership organizations.
ETSC 435. Technology Education Exit Assessment
(1). This is a senior level course designed to measure student competencies in meeting state and national standards for program exit. Students are evaluated on their portfolio as presented in LiveText. Grade will either be S or U. Formerly IET 435, students may not receive credit for both. Prerequisites: ETSC 430 and ETSC 433, and senior standing taken last quarter at CWU prior to graduation. Upon successful completion of this course, the student will be able to:
Organize assignments from courses in major and place into Livetext.
Refine oral presentation skills. Determine their effectiveness for meeting competencies in technology education.
ETSC 442. Alternative Energy Resources and Technology (5). Overview of energy systems, with focus on wind, biomass, solar, biodiesel, geothermal, and sustainable energy systems. Includes energy production and conversion. Field trips. Formerly IET 442, students may not receive credit for both. Prerequisite: junior standing or above.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the units used to measure and discuss Energy and Power. Analyze a facilities energy footprint.
Calculate the annual energy output of a given solar photovoltaic array. Propose the quantity of solar panels required to offset $100 \%$ of a building's annual electrical energy demand.
Estimate the maximum power output of a commercial wind turbine.

## ETSC 455. Engineering

 Project Management (4). Project-based synthesis used in engineering project management. Topics; bidding, contract management, scheduling, cost estimating and control, logistics, conflict management, team building, negotiating, and risk assessment. ETSC 455 and ETSC 555 are layered courses; students may not receive credit for both. By permission. Formerly IET 455, students may not receive credit for both.ETSC 457. Advanced
Foundry (4). Two hours lecture and four hours laboratory per week. Formerly IET 457, students may not receive credit for both. Prerequisites: ETSC 353 and MET 257.
ETSC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . Formerly IET 490, students may not receive credit for both. ETSC 491. Workshop (1-6). Formerly IET 491, students may not receive credit for both. ETSC 496. Individual Study (1-6). Formerly IET 496,
students may not receive credit for both.
ETSC 497. Honors (1-12).
Prerequisite: admission to department honors program.
ETSC 498. Special Topics (1-
6). Formerly IET 498, students may not receive credit for both.
ETSC 499. Seminar (1-5).
Formerly IET 499, students may not receive credit for both.

## EXSC 154. Science of

Healthy Living (5). Science of Healthy Living ( 5 credits) is a lecture (4 hours) and in-person laboratory ( 2 hours) course, that analyzes and evaluates current theories and practices related to healthy living, focusing on translating theory to practice. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Describe and explain how changes in physical and intellectual activity affect an individual's health. Describe how current hypotheses involving healthy living are generated and tested. Collect and analyze data collected in laboratory sessions (body composition, aerobic capacity, blood glucose, blood pressure, blood lipids, heart rate response, cognition, strength, and balance). Apply the results from data analysis to a person's current health status and provide feedback on healthy changes a person could adopt to enhance health.
Analyze and critique claims of published research as they pertain to health problems by critiquing scientific articles.
EXSC 254. Foundations of Fitness (3). Overview of the fitness industry, components of fitness, and strategies to improve the health and wellbeing of the individual.
EXSC 298. Special Topics (16).

EXSC 299. Seminar (1-5).
May be repeated if subject is different.

EXSC 318. Aerobic Fitness
(3). This class provides the fitness and sports management major with an in-depth exploration of various cardiovascular exercise activities and equipment. Prerequisites: EXSC 350 and EXSC 350LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physiological and mechanical understanding of the body relative to specific aerobic activity.
Demonstrate knowledge of the scientific principles of aerobic training.
Demonstrate knowledge of the ways to modify aerobic exercise to meet the specific needs of the clients.
EXSC 350. Gross Anatomy
(3). Gross anatomy of all systems of the human. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the skeletal and muscular systems of the human body. Demonstrate knowledge of the neural and endocrine systems of the human body. Demonstrate knowledge of the circulatory and respiratory systems of the human body. Demonstrate knowledge of the digestive, urinary, and reproductive systems of the human body.
EXSC 351. Physiology (4).
Comprehensive study of the physiology of humans. Prerequisites: EXSC 350 and EXSC 350LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physiology of the neural and endocrine systems of the human body.
Demonstrate knowledge of the physiology of the cardiovascular and respiratory systems of the human body. Demonstrate knowledge of the physiology of the digestive,
urinary, and reproductive systems of the human body. Demonstrate knowledge of the physiology of the muscular and skeletal systems of the human body.
EXSC 352. Assessment and Treatment of Athletic Injuries (4). Prevention and treatment of injuries and rehabilitation of injured athletes. Three hours lecture and two hours laboratory per week. Formerly EXSC 348, students may not receive credit for both. Prerequisites: EXSC 350 and EXSC 350LAB. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the process of injury prevention. Demonstrate knowledge of how to handle emergency situations.
Demonstrate knowledge of injury recognition and assessment of common injuries.
Demonstrate knowledge of basic protective taping techniques.
Demonstrate knowledge of treating various athletic injuries.

## EXSC 353. Physical and

 Orthopedic Assessment (4). Differential diagnoses of physical-orthopedic pathologies and special tests used in a range of healthcare arenas. Four hours lecture per week. Prerequisites: EXSC 350 and EXSC 350LAB with a grade of C or higher. Upon successful completion of this course, the student will be able to:Demonstrate knowledge of different diagnostic tests. Discriminate among the various assessment procedure(s) for a given diagnosis.
Prepare an action plan resulting from a confirmed diagnosis.
EXSC 370. Biomechanics (5). Physical laws and mechanical principles that govern human motion including internal and external forces and their effects, along with the
measurement of kinematic, kinetic, and mechanics of movement. Prerequisites:
EXSC 350 and EXSC 350LAB and PHYS 111 or PHYS 121 or PHYS 181.
EXSC 371. Movement
Analysis (5). This course is designed to teach the student applied principles of human movement analysis. Course content includes basic motor control, basic motor learning, and applied biomechanical principles. Course will be offered every year (Fall, Winter, Spring and Summer). Prerequisite: EXSC 254 or permission of instructor. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of appropriate terminology used for movement analysis and understand the mechanical principles of human movements. Identify general movement patterns for bipedal gait. Understand and be able to apply biomechanical principles to various joint actions. Use biomechanical principles to evaluate human movement performance.
Synthesize concepts of human movement analysis in order to improve human movement performance.
EXSC 396. Individual Study
(1-6). May be repeated if subject is different.
EXSC 397. Honors (1-12).
Prerequisite: admission to department honors program.
EXSC 398. Special Topics (16).

EXSC 399. Seminar (1-5).
May be repeated if subject is different.
EXSC 438. Therapeutic
Exercise (3). This course covers the understanding, design, and development of rehabilitation exercises for acute, chronic and post operative injuries. Course will be offered every year (Fall and Spring). Prerequisite: EXSC 350 and EXSC 350LAB, and (EXSC 352 or EXSC 353).

Upon successful completion of this course, the student will be able to:
Summarize knowledge of anatomical basis for neuromuscular functioning and dysfunction Differentiate between congenital, aging-oriented, and injury generated neuromuscular dysfunctions Analyze specific neuromuscular dysfunctions and determine type of therapeutic rehabilitative exercises that are appropriate Justify specific components of rehabilitative exercise protocols for given NM dysfunctions

## EXSC 446. Sports Nutrition

(3). Integration and application of scientifically based nutrition and exercise physiology principles that support and enhance performance and good health. EXSC 446 and NUTR 446 are cross-listed courses; students may not receive credit for both. Prerequisite: NUTR 101 and (CHEM 113 or EXSC 450).

Upon successful completion of this course, the student will be able to:
Identify energy systems
utilized during physical activity.
Demonstrate knowledge related to macronutrient, micronutrient, and fluid requirements based on type of physical activity.
Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical evidence-based practice decisions.
Identify the relationship between dietary intake and exercise performance. Identify proposed mechanisms and theories behind various popular ergogenic aids.
EXSC 450. Physiology of
Exercise (4). Acute and chronic responses of the metabolic, muscular, cardiovascular, pulmonary, endocrine, and thermoregulatory systems to physical work. Prerequisites:

EXSC 351 and EXSC 351LAB with a grade of C or higher, and admission to the exercise science or clinical physiology major.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physiologic and morphologic components that govern human function and structure at rest and during exercise. Demonstrate knowledge of the impact of training status and gender on the physiologic responses to exercise. Demonstrate knowledge of the physiologic adaptations to regular, systemic imposition of exercise stress.

## EXSC 452. Therapeutic

Modalities (3). A detailed examination of injuries, therapeutic modalities, and rehabilitation in athletic training. Course will be offered every year (Winter and Spring). Prerequisite: EXSC
352 or EXSC 353 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Summarize physical principles that underpin modality functioning
Outline the chemical principles that underpin modality functioning
Analyze specific injury scenarios and determine type and magnitude of tissue trauma Justify specific treatment modality selections and generate treatment protocols for specific trauma scenarios
EXSC 455. Fitness
Assessment and Exercise
Prescription (4). Concepts and
principles of appraising level of fitness, evaluating the results and designing physical fitness/exercise programs. Four hours lecture. Prerequisites:

## EXSC 351 and EXSC

351LAB.
Upon successful completion of this course, the student will be able to:
Identify the major components of physical fitness and explain
the importance of each component.
Identify the risks associated with exercise and demonstrate knowledge of risk stratification. Assess cardiorespiratory fitness, muscular strength and endurance, flexibility and body composition.
Interpret the results of fitness assessments.
Demonstrate knowledge of designing comprehensive
fitness programs.
EXSC 456. Clinical
Physiology (5).
Pathophysiologic basis of noncommunicable disease, screening procedures for severity, prescriptive guidelines. Prerequisites:
EXSC 351 and EXSC 351LAB.
Upon successful completion of this course, the student will be able to:
Evaluate principles of exercise prescription for a variety of clinical populations.
Design an exercise prescription based on raw data collected from various exercise tests. Summarize and evaluate and apply the ACSM screening and cardiovascular risk stratification protocol.
Evaluate and respond to emergency situations that may develop during an exercise session involving high-risk clients.
EXSC 457. Exercise
Adherence Strategies (3).
Review of psychological
factors involved in the exercise treatment of normal and special populations.
EXSC 461. Professionalism
in Exercise Science (2).
Overview of professional associations and their certifications, career opportunities and critical soft skills of the professions. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the fitness career path.

Demonstrate knowledge of professionalism in the Exercise Science field.
Demonstrate knowledge of resume writing and professional certifications.
EXSC 463. Pediatric Issues in Exercise Science (Put on Reserve 9/16/16.) (5).
Essential principles of growth, development, and exercise science and the application of these principles to children and youth. Four hours of lecture and two hours of laboratory per week. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)
Prerequisites: EXSC 350 and
EXSC 351 with grades of C or higher.
EXSC 464. Management of Fitness Facilities and
Programs (4). This course covers conventional business management principles and operational guidelines to the unconventional business of health and fitness facilities. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the industry and underlying principles of managing and operating health fitness facilities.
Demonstrate an understanding of sales and marketing, member management, service desk management, program management, profit centers, personnel management, and equipment issues.
Demonstrate an understanding of health and safety standards; maintenance; finance; compensation; and legal, insurance, and computer issues.
Demonstrate an understanding of the process of evaluating facilities, personnel, programs, marketing, and finances.

## EXSC 470. Clinical

Biomechanics (3).
Biomechanical characteristics in clinical populations, Investigation of specific biomechanical and clinical interventions and devises to improve functional movement
abilities. Two hour lecture 2
hours lab per week.
Prerequisites: EXSC 370, grade of C or higher. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of mechanical principles.
Apply concepts to novel situations.
Demonstrate an increased ability to read and interpret scientific literature. Apply the concepts of movement mechanics to clinical patient functioning. Apply their knowledge of the scientific methods to answer research questions in clinical mechanics.

## EXSC 471. Sports

Biomechanics (3). Physical laws and biomechanical principles that govern highlevel human functioning: running, ballistic-power movements, striking and impacting, resistance factors, and sports engineering. Two hours lecture and two hours lab per week. Prerequisites: EXSC 370, grade of C or higher. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of mechanical principles.
Apply concepts to novel situations.
Demonstrate an increased ability to read and interpret scientific literature.
Apply the concepts of movement mechanics to sports performance.
Apply their knowledge of the scientific methods to answer research questions in sports mechanics.

## EXSC 480. Science of

Resistance Exercise (4). This course addresses the scientific and theoretical bases of program design in resistance training. Formerly EXSC 360, students may not receive credit for both. Prerequisites: EXSC 370, and EXSC 450, and
EXSC 450LAB.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the scientific principles that govern resistance training.
Demonstrate the ability to
teach proper advanced lifting
techniques for resistance training.
EXSC 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, medical, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisites: satisfactory completion of all courses in the major and a minimum major GPA of 2.7.
EXSC 491. Workshop (1-6).
Course content identified by title in the university class schedule. May be repeated for credit under different titles.
EXSC 493. Clinical Field
Experience (1-15). Experience
and instruction under the
supervision of clinician
preceptors. Completed application and required clearances must be submitted to department prior to registration. Consent required. Satisfactory completion (C or higher) of all courses in Clinical Physiology. May be repeated up to 20 credits. Prerequisite: Instructor permission.
Upon successful completion of this course, the student will be able to:
Relate clinical symptoms and conditions to a variety of disorders.
Prepare an action plan resulting from a confirmed diagnosis. Predict the outcome of a sequential treatment plan.
EXSC 496. Individual Study
(1-6). Permission of instructor. May be repeated.
EXSC 497. Honors (1-12).
Prerequisite: admission to department honors program.

EXSC 498. Special Topics (16).

EXSC 499. Seminar (1-5).
Permission of instructor. May
be repeated.
EXSC 350LAB. Gross
Anatomy Laboratory (2).
Cadaver study of all
anatomical systems of the
human. Co- or prerequisite:
EXSC 350.
Upon successful completion of this course, the student will be able to:
Identify the gross anatomy of the nervous and endocrine systems of the human body. Identify bones and landmarks on the bones of the skeletal system.
Identify muscles of the human body.
Identify the gross anatomy of the circulatory and respiratory systems.
Identify the gross anatomy of the digestive, urinary, and reproductive systems of the human body.

## EXSC 351LAB. Physiology

Laboratory (1). Laboratory procedures that assess physiologic functioning of humans. Co- or prerequisite: EXSC 351.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physiology neural and endocrine systems of the human body.
Demonstrate knowledge of the physiology of the cardiovascular and respiratory systems of the human body. Demonstrate knowledge of the physiology of the digestive, urinary, and reproductive systems of the human body. Demonstrate knowledge of the physiology muscular and skeletal systems of the human body.
EXSC 450LAB. Physiology of Exercise Laboratory (1).
Accompanying laboratory to EXSC 450, includes data collection and laboratory writeups on responses of the metabolic, muscular, cardiovascular, pulmonary,
endocrine, and
thermoregulatory systems to physical work. Prerequisites: EXSC 351 and EXSC 351LAB with a grade of C or higher, and admission to the exercise science or clinical physiology major.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physiologic and morphologic components that govern human function and structure at rest and exercise.
Demonstrate knowledge of the impact of training status and gender on the physiologic responses to exercise. Demonstrate knowledge of the physiologic adaptations to regular, systemic imposition of exercise stress.
Experience data collection, analysis, and interpretation of physiologic responses to exercise.

## EXSC 455LAB. Fitness

 Assessment and Exercise Prescription Laboratory (1).Accompanying laboratory to
EXSC 455, includes techniques
for assessing aerobic fitness,
muscular strength and endurance, body composition and flexibility. Two hours laboratory. Prerequisites:
EXSC 351 and EXSC
351LAB.
Upon successful completion of this course, the student will be able to:
Identify the major components of physical fitness and explain the importance of each component.
Identify the risks associated with exercise and demonstrate knowledge of risk stratification.
Accurately assess
cardiorespiratory fitness, muscular strength and endurance, flexibility and body composition.
Interpret the results of fitness assessments.
Demonstrate knowledge of designing comprehensive fitness programs.

EXSC 495A. Practicum:
Fitness Centers/Clubs (2).
Observation, monitoring, and
supervised assistance of fitness
assessment and exercise
prescription in community fitness center/club setting. Grade will either be S or U .

## EXSC 495B. Practicum:

Clinical (2). Observation, monitoring, and supervised activity in clinical rehabilitation and athletic training setting. Grade will either be S or U .
EXSC 495C. Practicum: Management (2). Observation, monitoring, and supervised leadership activity in fitness, health, and sport management settings. Grade will either be S or U.
EXSC 495D. Practicum: Laboratory Assessment (2).
Laboratory techniques for assessment of body composition, cardiovascular, strength, and flexibility components of fitness. Grade will either be S or U .
FCL 101. Skills for Marriage and Intimate Relationships
(4). Provides an overview of romantic relationship dynamics and common issues in relationships from inception to dissolution. Students learn strategies for their own relationships and skills to work in relationship
education. Formerly FS 101, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Describe antecedents, consequences, and intervention for common romantic relationship issues based on theory and empirical research. Articulate how contemporary societal values and issues underlie romantic relationship processes.
Analyze romantic relationship processes within the contexts in which they take place using Ecological Systems Theory and empirical literature.

Analyze romantic relationship processes using Family Systems Theory and the Investment Model of Commitment.
Summarize historical and contemporary variations in romantic relationship formation, dynamics, and termination and changes in individuals' behaviors within relationships over time. Summarize key findings from empirical articles about romantic relationship dynamics, and critique research methods in relationship science.
FCL 232. Child Development
(3). Developmental characteristics of children with emphasis from conception to eight years. Includes
observation techniques. FCL
232 and EDEC 232 are cross-
listed courses; students may not receive credit for both. Formerly FS 232, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Use knowledge of bow children develop and learn to provide opportunities that support the physical social, emotional language, cognitive, and aesthetic development of all young children from birth through age eight. (WA ECE Standard Kl 1 \& S1.1) (NAEYC Guideline 1.1)(CTL Standard 1.1)
Use knowledge of bow young children differ in their development and approaches to learning to support the development and learning of individual children. (WA ECE Standard K.1.2 \& S 1.2) (NAEYC Guideline 1.2) (CTL Standard 1.1)
Apply knowledge of cultural and linguistic diversity and the significance of socio-cultural and political contexts for development and learning, and recognize that children are best understood in the contexts of family culture, and society. (WA ECE Standard 1.4)
(NAEYC Guideline 1.3) (CTL Standard 1.8, I. 11)
Use informal and formal assessment strategies to plan and individualize curriculum and teaching practices. (WA
ECE Standard 4.1 \& S 4.1)
(NAEYC Guideline 4.1) (CTL Standard 1.2, 1.3)
Actively seek out opportunities to grow professionally by locating and using appropriate professional literature, organizations, resources, and experiences to inform and improve practices. (WA ECE St. K5.5 \& S5.5) (NAEYC Guideline 5.5) (CTL Standard 1.3)

Observe and participate under supervision of qualified professionals in a variety of settings in which young children, from birth through age eight, are served (such as public and private centers, schools, and community agencies). (WA ECE K6.1) (NAEYC Guideline 6.1) (CTL Standard 1.7 1.8, 1.11)
FCL 234. Contemporary Families (4). Origins and historical development of families; cultural variations, contemporary trends. Draws upon information and insight from numerous root disciplines to explore family structure and function. Formerly FS 234, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Understand the nature of intimate personal relationships, in their various forms, and within the context of the social, familial, and cultural factors that affect the development and maintenance of these relationships.
Examine the events that occur throughout the life cycle of the intimate relationship, including dating and mate selection, cohabitation, marriage, transition to parenthood, child rearing, divorce, and remarriage.

Evaluate intimate relationships and consider role choice in interpersonal relationships. Understand the determinant of personal decision making in intimate relationships.
FCL 235. Relationships and Personal Development (3). Development of interpersonal relationships from initial encounters to stable
commitments. Major focus on interaction patterns in intimate relationships. FCL 235 and PSY 235 are cross-listed courses; students may not receive credit for both. Formerly FS 235, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Understand the development of intimate relationships
Evaluate the use of effective and ineffective interpersonal communication.
Demonstrate an ability to show empathy, own feelings and properly paraphrase Understand and be able to practice skills in conflict resolution
FCL 298. Special Topics (16). Formerly FS 298, students may not receive credit for both.
FCL 299. Seminar (1-5). May
be repeated if subject is different.
FCL 305. Junior Seminar
(Put on Reserve 9/16/16.) (1).
Preparation for practicum/internship and
service learning. This course is required of any family studies major in a volunteer, practicum, or internship experience. Formerly FS 305, students may not receive credit for both. (Put on Reserve
9/16/16. Last taught in 2012.
Will go inactive $8 / 24 / 19$.)
Prerequisite: family studies majors only.
Upon successful completion of this course, the student will be able to:
Demonstrate skills in interviewing and resume writing.

Demonstrate principles of effective professional networking.
Demonstrate the requirements for professional certification with the National Council on Family Relations.
Demonstrate the ties between their academic preparation and field experiences.
FCL 310. Family Issues in
the 21st Century (4). An introduction to social issues that impact family life. Current issues pertaining to individual and family relationships are assessed from an interdisciplinary perspective.
SB-Foundations of Human
Adaptations and Behavior (W). Formerly FS 310, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify salient family issues, and their impact on families. Articulate conservative, liberal reactionary and radical political viewpoints and their relationship to economics and family issues.
Articulate arguments both in favor and opposed to several positions on family issues. Understand what theoretical perspectives and value systems accompany arguments about family issues
Articulate the various ways of knowing, and cite the salient knowledge source in several family issue arguments.
FCL 320. Theories of Family Dynamics (4). Internal dynamics of family functioning, including processes by which families deal with change, stress, and conflict. Major theoretical orientations to the study of family, and an introduction to the scientific process. Formerly FS 320, students may not receive credit for both. Prerequisite: FCL 101 and FCL 234, and admission to a family studies major.
Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of the nature of theory and its role in the scientific process. Describe the fundamental assumptions and specific constructs from relevant family theories.
Apply the major theoretical orientations to family phenomena.
Analyze family functioning from various theoretical perspectives.
Address family change and crisis using a family systems perspective.
FCL 333. Culture and Marriage (4). The reciprocal relationships between the biophysical and cultural components in mating, nurturing and sexual access. Cross-cultural patterns in marriage. FCL 333 and ANTH 333 are cross-listed courses; students may not receive credit for both. Formerly FS 333, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Examine the plurality of marriages and families and explore the changes that have taken place.
Evaluate how culture shapes marriage and other family and social arrangements.
Compare the structure and function of families, dating, courtship, marital choice, kinship, cross-cultural and minority families, changing gender roles, demographic trends, historical issues, workfamily relationships and societal relations across cultures.
Relate theory and research to the understanding of marriage across cultures.
FCL 334. Family Problems
and Mediation (4). Problems arising out of the interaction of family members. Mediation techniques, family policy, and theories and ethics in studying families. FCL 334 and FCL 554 are equivalent courses; students may not receive credit for both. Formerly FS 334,
students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify contemporary stressors and family problems.
Articulate the distinction between normative and nonnormative events in family life. Demonstrate an understanding of concepts, selected theories, and research concerning family stress, coping, and social support.
Apply the ABC-X model of family stress to normative and non-normative stressor events. Demonstrate a basic understanding of the strategies families use when adapting to crisis situations.
Match intervention strategies with the nature of the crisis event, family dynamics, family strengths, and current family circumstances.
FCL 335. Divorce and
Remarriage (3). Personal, family, and legal aspects of divorce and remarriage; historical antecedents and trends. Formerly FS 335, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Understand the development consequences of divorce throughout the life cycle. Identify prevention strategies and policies dealing with divorce.
Understand the key processes underlying the antecedents and trends of divorce.
Evaluate critically the role and impact that divorce has on contemporary society. Examine the history of marriage and divorce.
FCL 336. Parent Education
and Guidance (4). Study of parent education models and methods of teaching parent education in community and school settings. Formerly FS 336, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
Describe principles of effective parenting across child development.
Interpret parenting practices in the context of culture.
Compile resources for parents of diverse backgrounds. Design a parenting education curriculum.
Evaluate the efficacy of existing parenting education programs.
FCL 337. Human Sexuality
(4). The biophysical, psychosocial, and behavioral aspects of sexuality with emphasis on making responsible sexual decisions and promoting healthy relationships. General Education: SB-Foundations of Human Adaptations and Behavior. Formerly FS 337, students may not receive credit for both. Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Demonstrate comfort examining and discussing aspects of human sexuality Examine current factual information on human sexuality
Define their own philosophy of sexual behavior Describe the functioning of male and female sexual systems as they relate to reproduction, sexual expression, and sex role Identify major contraceptives, their effectiveness, and side effects
Explore past and present attitudes and cultural variations in sexual behavior Identify ways to prevent and treat STD and HIV infections Identify laws related to sexual behavior, sexual harassment, and sexual violence
FCL 339. Adolescence and Emerging Adulthood (4). Developmental theory about the periods of adolescence (ages 12-18) and emerging adulthood (ages 18-25).

Implications for practice with adolescents and emerging adults will be emphasized. Prerequisite: FCL 232 or permission of instructor. Upon successful completion of this course, the student will be able to:
Describe physical, cognitive and social-emotional development in adolescence and emerging adulthood Identify the major cultural an demographic shifts that have contributed to the development of the emerging adulthood period
Synthesize the variations in adolescent and emerging adult development based on culture, race/ethnicity, gender, socioeconomic status, and sexual orientation Design interventions for adolescents or emerging adults based on theory and empirical sources
Assess adolescent and
emerging adulthood
development using
developmental and ecological systems theories
FCL 344. Foundations of Marriage and Family
Therapy (4). Introduction to Marriage and Family Therapy (MFT) including systems theory, MFT as a profession, and requirements for entry into MFT graduate programs. Basic skills and interventions that can be applied in many social service settings. Formerly FS 344 , students may not receive credit for both. Prerequisite: FCL 101.
Upon successful completion of this course, the student will be able to:
Describe the core assumptions of Family Systems Theory and how they apply to the practice of MFT.
Explain the similarities and differences among MFT models of therapy. Identify personal identities, experiences, and assumptions, and describe how these might influence work with clients who are similar and different.

Demonstrate basic skills and interventions used in the MFT profession.
Discuss the ethical, clinical, and legal complexities when working with children in a systemic framework. Develop a basic personal theory of change in counseling.
FCL 355. Family Financial
Counseling (4). This course
will provide students with fundamental skills for working with families to achieve their financial management goals. Understanding of basic financial management concepts will be integrated with basic communication and helping skills for effective financial counseling strategies. Course will be offered every year (Winter). Prerequisite: PFP 310 or permission of instructor. Upon successful completion of this course, the student will be able to:
Identify appropriate financial
resources for individuals and families
Explain effective cash flow management strategies Identify debt management strategies and consumer protection laws Utilize financial counseling strategies to motivate clients to change negative behaviors and/or adopt positive behaviors Utilize advanced
communication and counseling skills in financial counseling or planning situations
FCL 396. Individual Study
(1-6). May be repeated if subject is different.
FCL 397. Honors (1-12).
Prerequisite: admission to department honors program.
FCL 398. Special Topics (1-
6). Formerly FS 398 , students may not receive credit for both.
FCL 399. Seminar (1-5). May be repeated if subject is different.
FCL 403. Family
Communication (4). This
course is designed to provide an overview of family dynamics and the processes that influence family communication and family
functioning. FCL 403, COM 403 and FCL 503 are crosslisted courses; students may not receive credit for both. Formerly FS 403, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Attain a consistent
communication focus in viewing and understanding family life.
Demonstrate the utility of applying theoretical frameworks to questions about family communication. Demonstrate an ability to apply critical thinking to contemporary family forms and functions.
Identify dysfunctional family patterns and their root causes. Articulate the importance of family communication rituals. Identify the role of communication for coping with stressors and mediating conflict.
FCL 405. Professional Obligations and Responsibilities (4). Family and Child Life students will learn legal and professional rules that govern their practice fields as well as medical ethics. They will also develop skills to respond to common issues in practice. Family and Child Life majors only. Formerly FS 405 , students may not receive credit for both. Course will not have an established scheduling pattern (Winter). Prerequisite: family and child life major. Upon successful completion of this course, the student will be able to:
Describe the legal and ethical considerations that inform their practice, including medical ethics.
Evaluate their own
professional biases and areas of professional growth.
Demonstrate skills in legal testimony.
Assess hypothetical ethical and legal situations and justify plans of action.
Prepare legal documents to use in their practice.

Analyze the process by which regulatory agencies enact rules that govern their professions.
FCL 414. Coping with Grief and Loss (4). Theories and research about the grief process, coping, and resilience through a developmental lens. Students will learn tools to talk to adults and children about death and bereavement and to work with families experiencing loss. FCL 414 and FCL 514 are layered courses; student may not receive credit for both. Upon successful completion of this course, the student will be able to:
Describe developmental and cultural variations in the expression of grief and implications for interventions. Evaluate contemporary theories of grief and loss using developmental and cultural lenses.
Assess grief responses, including complicated mourning and risk for pathological responses. Design loss and grief interventions for clients of various developmental ages and cultural backgrounds. Analyze personal assumptions, biases, attitudes, and reactions to loss and grief, and how they might influence interactions with grieving children and adults.
FCL 415. Therapeutic Play
(4). Application of play theories to intervene with children and families. Content will include classical and contemporary theories of play, play across child development, assessment using play, and skills to facilitate play sessions in various contexts. Formerly FS 415, students may not receive credit for both. FCL 415 and FCL 515 are layered courses; students may not receive credit for both. Prerequisite: FCL 232 or permission of instructor. Upon successful completion of this course, the student will be able to:

Synthesize the core assumptions of classical and contemporary theories of play. Summarize typical changes in play across child development Formulate considerations for use of play with children in special populations.
Design play interventions for children of various ages and in many contexts.
Demonstrate skills to facilitate play for assessment and intervention purposes. Demonstrate skills to engage the family system in therapeutic play.
FCL 416. Child Life I: Child
Life Scope of Practice (4).
Introduction to the child life profession including history and scope of the practice of child life; impact of stress, trauma, and hospitalization on children and families; skills for providing therapeutic intervention with medically fragile children. Formerly FS 416, students may not receive credit for both. FCL 416 and FCL 516 are layered courses; students may not receive credit for both. Course will be offered every year (Fall). Prerequisite: FCL 232 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate a clear understanding of Child Life professional standards and the process of certification including the Code of Ethical Responsibility, Child Life Competencies, and the Standards of Clinical Practice. Communicate an in-depth understanding of the history and scope of Child Life practice and the foundation of evidence-based practice. Identify the potential impact of hospitalization and stress at various developmental stages, and integrate family-centered care principles in identifying appropriate support. Use assessment skills to plan advocacy and coping interventions specific to work
with children experiencing medical stress and/or trauma. Summarize ethical issues in child life and evaluate guidelines for practice when faced with ethical dilemmas.
FCL 417. Pediatric Diagnoses and Medical Terminology
(4). Understanding of common pediatric diseases and diagnoses, medical terminology, childhood hospitalization, corrective pediatric care, hospital technology, and medical documentation relevant to work as a child life specialist. Formerly FS 417, students may not receive credit for both. FCL 417 and FCL 517 are layered courses; students may not receive credit for both. Course will be offered every year (Spring). Prerequisites: FCL 232, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Describe common childhood diseases, disorders, and treatment protocols using medical terminology. Identify childhood diseases and disorders and the impact they have on children and their families
Interpret and draft hospital documentation. Prepare step-by-step coping plans to support children and families with common childhood diseases. Synthesize current research related to child life and childhood diseases and summarize how it informs child life practice.
FCL 418. Child Life II: Impact of Child Hospitalization (4). Advanced understanding of the child life profession including ethical issues, multi-cultural perspectives, pain management, program administration and supervision, current research, and communication, and therapeutic relationships in a hospital context. Formerly FS 418 , students may not receive
credit for both. FCL 418 and FCL 518 are layered courses; students may not receive credit for both. Course will be offered every year (Spring).
Prerequisites: FCL 232 and FCL 416, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Discuss principles of communication, advocacy, helping skills, and interdisciplinary and therapeutic relationship formation in a hospital setting. Describe the impact of chronic and acute pain on pediatric patient.
Demonstrate appropriate support and intervention strategies for children and families including relaxation, comfort positioning, guided imagery, and pain management techniques.
Demonstrate culturally competent care in a hospital setting.
Describe principles of program administration and supervision in child life.
Apply formal and informal assessment techniques to determine developmental and emotional state. Students will be able to adapt approaches, resources, and support to audience need.
FCL 419. Research in Family
and Child Life (4). Methods of research used in studying families and relationships, including measurement, research design, ethics, sampling, and casual inference. Students will complete a research project emphasizing application of material. FCL 419 and FCL 519 are layered courses; students may not receive credit for both. Formerly FS 419, students may not receive credit for both. Course will be offered every year (Fall). Prerequisites: FCL 101 and FCL 234.
Upon successful completion of this course, the student will be able to:

Explain the importance of research in the scientific process and the benefits to the human condition Apply principles of research methods in social sciences, including: sampling, design, measurement, ethics, and basic statistics
Evaluate causality using principles of causal inference and statistical interpretation Conceptualize, design, and conduct a research study Manage data, perform data analysis, and interpret results, with assistance
Prepare and effectively deliver a research presentation
FCL 432. Theories in Child
Development (3). Assists the
student in formulating his or her own general assumptions about the nature of child development through study of various theoretical viewpoints and current issues. EDEC 432
and FCL 432 are cross-listed courses, students may not receive credit for both. Formerly FS 432, students may not receive credit for both.
FCL 433. Family Life
Education (4). The broad objectives, trends, methods and materials of family life education programs in various settings. FCL 433 and FCL 533 are layered courses; students may not receive credit for both. Formerly FS 433, students may not receive credit for both. Prerequisites: FCL
101 and FCL 234 and FCL
235. Family studies majors only.
Upon successful completion of this course, the student will be able to:
Define FLE, where it is practiced, and the major issues in FLE.
Explain the content areas involved in becoming a Certified Family Life Educator (CFLE) as determined by the National Council on Family Relations (NCFR) Assess CWU and Ellensburg community needs.

Identify and explain one family life issue that meets a family life education need. Evaluate a family life education curriculum for children or youth.
FCL 434. Diversity in Families (4). Students will gain strategies for working with a broad range of families with diverse structures, backgrounds and circumstances. Emphasis on applying conceptual frameworks to families' situations, communicating and collaborating with families, and supporting families' goals. Formerly FS 434, students may not receive credit for both. Course will be offered every year (Spring). Prerequisite:
FCL 234 and family and child
life major or family studies major.
Upon successful completion of this course, the student will be able to:
Synthesize research about diverse family structures, backgrounds, and circumstances.
Communicate and collaborate effectively with families. Demonstrate skills to support families of children with disabilities.
Demonstrate skills needed to promote strong parent-child attachment and interactions. Identify services and supports specific to diverse families' goals.
Assess risk factors such as poverty, addiction, and violence.

## FCL 435. Family

Gerontology (4). A review of the research literature on families in later life, focusing on family interactions and building family strengths. FCL 435 and FCL 545 are layered courses; students cannot receive credit for both. Formerly FS 435, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to:
Discuss societal attitudes of discrimination toward the elderly.
Evaluate issues in interpersonal relationships related to aging. Identify issues, regulations, and services impacting the elderly.
Explain the typical physical, psychological, and social changes in later life. Reflect on their personal feelings toward aging and working with older adults and their families.
FCL 438. Attachment Theory
and Practice (4). Attachment theory and strategies, parenting practices to facilitate attachment, and the impact of trauma on attachment. Reviews attachment trends and research and provides practical application of attachment in work with children and families. Formerly FS/FCL 338, students may not receive credit for both. Course will be offered every year (Winter). Prerequisite: FCL 232 or permission of instructor. Upon successful completion of this course, the student will be able to:
Describe the core assumptions of attachment theory. Describe the impact of separation, loss, abuse, and neglect on children's development and attachment formation.
Synthesize the empirical evidence regarding attachment formation and intervention to enhance attachment. Assess parents' and children's attachment strategies from an attachment theory lens. Evaluate existing attachmentbased interventions using empirical evidence and theory. propose policy changes based on attachment theory and research.
FCL 439. Families and Public Policy (4). Impact of governmental policies on families; policy implications of changes in the structure and
composition of families. Requires attendance at two events outside scheduled class time. FCL 439 and FCL 539 are layered courses; students may not receive credit for both. Formerly FS 439, students may not receive credit for both. Course will be offered every year (Winter). Prerequisites: FCL 101 and FCL 234. Upon successful completion of this course, the student will be able to:
Analyze the process by which policy is formulated and implemented. Identify public policy issues relating to families at local, state, and federal levels Formulate and articulate ideas
for changing policy to meet family needs and improve family well-being. Advocate policy changes to policy makers as participants in the political process.
FCL 440. Teaching for Family and Child Life (1-3). Supervised teaching assistant experience in family and child life courses. May be repeated up to 6 credits. Formerly FS 440 , students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring and Summer). Prerequisite: permission of instructor.
Upon successful completion of this course, the student will be able to:
Articulate a personal philosophy of teaching. Evaluate student submissions using assignment rubrics. Effectively present course material in class lectures. Write application- and evaluation-level exam questions.
FCL 490. Cooperative
Education (1-12). A contracted field experience with business, industry, government, or social service agency. Requires a cooperative learning agreement. May be repeated up to 20 credits. By permission. Grade will either be S or U. Formerly FS 490,
students may not receive credit for both.
FCL 491. Workshop (1-6).
Formerly FS 491, students may not receive credit for both.
FCL 492. Family and Child Life Practicum (1-6).
Supervised practicum experience in family and child life. May be repeated up to 15 credits. FCL 492 and FCL 592 are layered courses; a student may not receive credit for both. Formerly FS 492; students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: family and child life major only. Upon successful completion of this course, the student will be able to:
Practice skills in communication and interaction with children and/or families as they directly interact with children and/families at their practicum site.
Demonstrate professionalism and ethical behavior in a work environment.
Apply skills they have developed in Family and Child Life courses at their practicum site.
Demonstrate a working knowledge of community resources, agencies, and organizations.
Evaluate their progress toward goals and professional development in their practicum experience.
Analyze experiences at their practicum site and design programs or interventions to address unmet needs at their site.
FCL 495. Undergraduate
Research (1-6). Students work closely with faculty to complete a directed research project. By permission. May be repeated up to 6 credits. Upon successful completion of this course, the student will be able to:
Conceptualize and design research studies based on empirical literature

Collect data from a representative sample of a target population
Demonstrate an ability to interpret statistical results Deliver a clear presentation about the developed research study
FCL 496. Individual Study
(1-6). May be repeated if subject is different.
FCL 497. Honors (1-12). Prerequisite: admission to department honors program.
FCL 498. Special Topics (1-
6 ). Formerly FS 498, students may not receive credit for both.
FCL 499. Seminar (1-5). Formerly FS 499, students may not receive credit for both. FCS 166. Applied Creativity
(3). The creative process; blocks to creativity, creative problem solving, principles and elements of design in housing and interiors. Formerly FCSH 166, students may not receive credit for both.

## FCS 205. FCS Entry

Assessment (1). This course consists of self-assessment and assessment by the faculty of writing skills, speaking skills, visual/graphic skills, and knowledge of theory and research. Grade will either be S or U. Formerly FSCG 205, students may not receive credit for both.
FCS 220. Leadership in Human Development (4).
This highly interactive (challenge course, community service) course focuses on developing students' leadership skills that provide a base for improved communication in both personal and professional situations. Formerly FSCG 220, students may not receive credit for both.
FCS 296. Individual Study (1-6). Formerly FSCG 296, students may not receive credit for both.
FCS 298. Special Topics (16).

FCS 299. Seminar (1-5). May
be repeated if subject is
different.
FCS 305. Family and Consumer Sciences Student

Leadership (Put on reserve
9/16/17) (1). Students engage in leadership development through identifying, organizing, conducting and assessing course activities. Elective credit for major. May be repeated up to 6 credits. Grade will either be S or U . Formerly FSCG 305, students may not receive credit for both.
(Put on reserve 9/16/17. Will
go inactive $8 / 24 / 2020$.)
FCS 320. Program
Management and Planning
(4). A holistic approach to program management. Content deals with planning, organizing, and controlling programs. For example: special events, recreation, product development, construction, and business. Formerly FSCG 320, students may not receive credit for both.
FCS 366. History of Housing and Furniture I (3). Survey of historic interiors, cabinetmakers, decorative arts, furniture from the antiquity to the middle of the 1700s. Formerly FCSH 366, students may not receive credit for both. FCS 367. Family Housing (3).
An evaluative study of the design, quality, and cost of housing environment. Formerly FCSH 367, students may not receive credit for both.
FCS 371. Real World
Finance (3). This course provides, an introduction to major personal and family related consumer issues (loans, investments, credit, budgeting, fraud avoidance, advertising), rational financial decisionmaking, rights and responsibiliteis of consumers, and consumer protection. Formerly FCSC 371, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Explore a variety of consumer issues impacting individuals and families in our society. Evaluate the impact of advertising on consumer decisions.

Demonstrate comprehension of the economic and ethical issues related to major expenditures (food, clothing, housing, transportation, and recreation). Identify the essentials of money management including coping with credit and investing resources. Evaluate risk management throughout the life span as it relates to health care, life insurance, home insurance, and transportation insurance. Demonstrate comprehension of a variety of ways to handle fraudulent practices in the market place.
FCS 379. Professional
Development and Internship
Planning (3). Students will explore career options and networks within their industry, develop materials for a job search, and acquire skills related to professionalism. Formerly FSCG 379, students may not receive credit for both.
FCS 392. Housing Practicum (Prerequisite FCSH 265 on reserve 9/16/14.) (6-12). Work study experience in various aspects of the housing profession. May be repeated up to 12 credits. Formerly FCSH 392, students may not receive credit for both.
Prerequisite: FCSH 265
(Course on reserve).
FCS 396. Individual Study
(1-6). May be repeated if subject is different.
FCS 397. Honors (1-12).
Prerequisite: admission to department honors program.
FCS 398. Special Topics (1-
6). Formerly FCSC 398 students may not receive credit for both.
FCS 399. Seminar (1-5). May be repeated if subject is different.
FCS 405. FCS Exit
Assessment (1). During last quarter of their program, students are assessed on writing skills, speaking skills, visual/graphic skills, and knowledge of theory and research. Grade will either be S or U. Formerly FSCG 405, students may not receive credit
for both. Prerequisite: FCS 205.

FCS 465. History of Housing and Furniture II (Put on reserve 9/16/2014.) (3)
Survey of historic interiors, cabinetmakers, decorative arts, furniture from the late 1700s to the present. Put on reserve 9/16/2014. Last taught in 2009. Will go inactive $8 / 24 / 17$. Formerly FCSH 465, students may not receive credit for both.
FCS 472. Life Management
(5). Study of family in human ecosystem. Emphasis on physiological and psychological well-being and management of resources. Solve practical family problems. Formerly FCSC 472, students may not receive credit for both.

## FCS 490. Cooperative

Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . Formerly FSCG 490, students may not receive credit for both. FCS 491. Workshop (1-6). May be repeated for credit. Formerly FCSH 491, students may not receive credit for both.
FCS 492. Housing Practicum (Prerequisite FCSH 265 on reserve 9/16/14.) (6-12). A work study course including practical experience in a phase of housing of the student's choice, accompanied with a seminar. May be repeated up to 12 credits. Formerly FCSH 492, students may not receive credit for both.
Prerequisite: FCSH 265
(Course is on reserve).
FCS 496. Individual Study
(1-6). Formerly FSCG 496, students may not receive credit for both.
FCS 497. Honors (1-12).
Prerequisite: admission to department honors program.

FCS 498. Special Topics (1-
6). Formerly FCSH 498, students may not receive credit for both.
FCS 499. Seminar (1-5).
Formerly FCSH 499, students may not receive credit for both.
FCSE 298. Special Topics (16).

FCSE 299. Seminar (1-5).
May be repeated if subject is different.
FCSE 326. Curriculum in Career and Technical Education for Family and Consumer Sciences (4). Instructional organization and classroom procedure in family and consumer sciences career and technical education programs.
Upon successful completion of this course, the student will be able to:
Design a CTE program with course outlines and instructional learning plans to meet state standards. Identify a variety of instruction activities to accommodate the learning needs of the student from special populations and culturally diverse backgrounds. Establish the purpose and procedure for organizing and utilizing an advisory committee to obtain advice from the community for upgrading of competencies needed to balance individuals, family, home and work responsibilities in a changing society.
Develop a management plan for record keeping related to student growth, formative and summative evaluation, leadership projects, and departmental management. Identify methods to utilize resources in planning and evaluating curriculum and instruction.
Advocate and provide information on integrating CTE curricula with content from other subject matters. FCSE 396. Individual Study (1-6). May be repeated if subject is different.

FCSE 397. Honors (1-12).
Prerequisite: admission to department honors program.
FCSE 398. Special Topics (16).

FCSE 399. Seminar (1-5).
May be repeated if subject is different.
FCSE 426. Methods and Materials of Teaching Family and Consumer Sciences (3). Application of the philosophy, purposes, teaching techniques, and assessment of family and consumer sciences programs in the secondary schools. Prerequisites: FCSE 326 and EDCS 311.
FCSE 451. Methods and Materials of Teaching FCS Laboratory Course Content
(3). Methods and materials for teaching family and consumer science laboratory curricula. Prerequisite: full admissions to the major and the Teacher Certification Program Upon successful completion of this course, the student will be able to:
Align and implement career and technical education teaching and learning lessons and assessments while meeting state standards
Use instructional strategies that develop students' lifelong learning and goal setting related to entry, transition, and continuation in the educational process and in the workplace Develop effective assessment methods which may involve student, family, employer, and community Demonstrate industry appropriate CTE skills
Publicize program content and benefits to family and community
Determine and implement effective and safe layout of classroom and/or lab facilities that provide learning opportunities for all learners Identify and apply strategies (including individualized instruction) needed to instruct special populations; special needs, disabled, gifted, ethnic, and culturally diverse learners

Relate work ethic, workplace relations, workplace diversity and workplace communication skills to career development and employability skills Encourage teamwork and project-based learning Assist state approved career and technical education student leadership organization members or other state approved student leadership organization members in developing a yearly program of work
FCSE 491. Workshop (1-6). Course content identified by title in the university class schedule. May be repeated for credit under different titles.
FCSE 496. Individual Study
(1-6). May be repeated if subject is different.
FCSE 497. Honors (1-12).
Prerequisite: admission to department honors program.
FCSE 498. Special Topics (16).

FCSE 499. Seminar (1-5).
FCSH 265. Interior Design Fundamentals (Put on reserve 9/16/2014.) (4). The design process, space planning, color analysis, evaluating existing spaces, style trends, and scale drawings. Put on reserve 9/16/2014. Last taught in 2009. Will go inactive 8/24/17. Prerequisite: FCSH 166.

## FILM 150. Film

Appreciation (5). Introduction to the art of film, through screenings, lectures, discussions, quizzes, and online discussion posts. Emphasis will be placed on traditional "Hollywood-style" films as well as independent, foreign, avant-garde, documentary, and short films. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Determine film form and narrative structure.
Identify terminology related to visual approaches to cinematic
storytelling, editing, and sound design.
Recognize the structure of the film industry and phases of production.
Distinguish between characteristics of feature-length narrative films, short films, and documentaries.
Apply concepts of form and content to personal viewing of films.
FILM 214. Basic Film
Equipment (1). Specialized hands-on skills course in the proper use of basic film and television equipment. Grade will either be S or U . Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Explain the fundamental purpose of film and television equipment.
Apply basic tools of film and television equipment management and storage. Utilize proper film and television equipment storage and usage.
FILM 215. Production Technology Skills (1).
Specialized hands-on skills course in film and television software and/or equipment. Topics may include: animation, compositing, audio techniques, video editing, image editing, production equipment, or preproduction software. May be repeated for credit up to 6 credits, under a different subtopic. Grade will be S or U . Formerly FVS 215, students may not receive credit for both. Prerequisite: check with major advisor for topic availability.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the fundamental purpose of the technology.
Apply the basic tools of the technology.
Demonstrate competency in the technology.
FILM 216. Basic Audio
Technology (1). Specialized hands-on skills course in film
and television audio technology. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Explain the fundamental purpose of audio technology Apply the basic tools of audio recording and post-production. Present culminating audio project
FILM 217. Basic Editing:
Final Cut Pro (1). Specialized hands-on skills course in editing software: Final Cut Pro. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Explain the functions of Final Cut Pro editing software
Apply basic editing tools for video and audio
Present completed editing projects
Recognize responsible usage of creative materials
FILM 218. Basic Editing:
Premiere (1). Specialized
hands-on skills course in editing software: Premier. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Explain the functions of
Premiere editing software
Apply basic editing tools for video and audio
Present completed editing projects
Recognize responsible usage of creative materials

## FILM 219. Basic Editing:

 DaVinci Resolve (1).Specialized hands-on skills course in editing software: DaVinci Resolve. Grade will either be S or U. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:

Explain the functions of DaVinci Resolve editing software
Apply basic editing tools for video and audio
Present completed editing projects
Recognize responsible usage of creative materials

## FILM 220. Basic After

Effects (1). Specialized handson skills course in animation software: After Effects. Grade will either be S or U . Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Explain the functions of After Effects animation software Apply basic tools animation and compositing in text and image
Present completed animation projects
Recognize responsible usage of creative materials

## FILM 221. Color Correction

(1). Specialized hands-on skills course in motion imagery color correction and grading. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Describe basic color science and technology
Explain function and
application of video
compression
Explain the function of industry software
Apply color correction and grading techniques in pre- and post-production
Recognize responsible usage of creative materials
FILM 222. Advanced
Equipment (1). Specialized hands-on skills course in advanced film and television equipment. Grade will either be S or U . Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisite: FILM 214 or instructor permission.

Upon successful completion of this course, the student will be able to:
Explain the advanced purpose of film and television equipment
Describe advanced tools of film and television equipment management and storage Apply advanced film and television equipment storage and usage
FILM 225. Film Classics (1).
Specialized viewing course in film classics. Grade will either be S or U . Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Explain formal aesthetic
elements of classic films
Explain canonical elements of classic films
Identify key components of assigned films
FILM 250. Introduction to
Film (5). Learning and applying motion picture vocabulary and aesthetic concepts through screenings, discussions, and writing.
Emphasis on the social context, cultural influences, and aesthetic qualities of film. AHAesthetic Experience (W). Formerly FVS 250, students may not receive credit for both. Prerequisite: ENG 101 and ENG 102 with a grade of C - or higher.
Upon successful completion of this course, the student will be able to:
Recall Influence of historical movements in cinema on contemporary cinema. Define and distinguish between approaches to narrative structure.
Name conventions of major and hybrid film genres.
Recognize techniques of mlse-en-scene and cinematography. Recognize techniques of editing and sound design. Recall the phases and positions employed in the creation, production, completion, and distribution of a film.

FILM 256. Sound and Mixing - Aesthetics and Essentials (3). Students will gain an understanding of how to mix on a digital console. Audio/sound aesthetics and fundamentals will also be the focus of this course. FILM 256 and TH 256 are cross-listed; students may not receive credit for both. Formerly FVS 256, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Demonstrate competency on a digital and analog mixing board
Display an ability to mix a multi-source input into a coherent and fluid mix. Display fundamental skills on how to maintain and dress microphones on an actor Display basic audio connection and hardware skills.
Demonstrate the ability to successfully mix live microphones.
FILM 267. Screenwriting Fundamentals (4).
Introduction to the basic script format, the creative story and style elements, and the writing process steps for screenplays and teleplays. Focus on the narrative script development process from idea conception to first draft. COM 321
recommended. FILM 267 and ENG 267 are cross-listed courses, students may not receive credit for both. Formerly COM 267; students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisites: ENG 102 or FILM 250.
Upon successful completion of this course, the student will be able to:
Recall and apply correct grammar, punctuation,
spelling, and format for narrative screenplays.
Evaluate a feature script for quality of story, characters, and style and compose a "coverage" document.

Practice using screenplay writing style and story elements on a story from another medium
Propose a concept for an original short screenplay. Compose an original short screenplay.
FILM 298. Special Topics (1-
6). May be repeated if subject is different.
FILM 299. Seminar (1-5).
May be repeated if subject is different.

## FILM 327. Scriptwriter in Development and Production

(4). Combined
lecture/workshop, overview of the creative, and collaborative responsibilities expected of a scriptwriter in development and production. Students explore the challenges of this profession, as well as solutions to typical problems. Formerly COM 327; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: ENG 267 or FILM 267 and admission to the communication or film major. Upon successful completion of this course, the student will be able to:
Compose and present a narrative production "pitch" (proposal). Compose and present a corporate or promotional production "pitch" (proposal). Use industry-based communication strategies in a development and production setting.
Recall and apply legal and ethical considerations relating to a writer's responsibilities and rights in development and production contexts. Assemble and present a portfolio of self-marketing and business relationships and demonstrate interpersonal and self-promoting skills.
FILM 330. Media Aesthetics (5). An examination of the major aesthetic elements involved in visual storytelling for film, including light, color, 2D and 3D space, time/motion,
and sound. Formerly COM 330; students may not receive credit for both. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Recognize the major media aesthetic elements. Analyze how aesthetic principles are used by directors and/or cinematographers to contribute to a film's diegesis. Create an original visual production or a research paper using major aesthetic elements. Produce an effective nonnarrative media message using aesthetic techniques. Analyze ethical considerations in the creation of media messages.

## FILM 337. Documentary

Scriptwriting (4). Introduction to the format, story and style elements for documentary film. Topics include narrative point-of-view, story structure, camera placement, interviewer presence, narration and voiceover commentary, reenactment and archival materials. Formerly COM 337; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: FILM 267 or ENG 267 and admission to the communication or film major.
Upon successful completion of this course, the student will be able to:
Ability to identify and explain the different types of documentary narratives. Describe and explain the significance of the story structure choices, and visual and aural design elements, for a documentary.
Identify and apply the correct and specific script and semi script formats for documentaries.
FILM 340. Production I (5).
A combined lecture and skills development course that introduces students to the principles and techniques of single-camera production and
visual storytelling for narrative and documentary film. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Identify and correctly use basic film production equipment. Demonstrate fundamental visual story knowledge using single camera production methods.
Prepare pre-production materials for a single camera production.
Demonstrate appropriate image composition, audio recording, and operational functions of both camera and audio equipment.
Assemble raw production footage into a coherent story and properly export completed projects while utilizing professional video editing software.
FILM 342. Cinema Studies I: Early American Film History
(4). A history of the development of narrative film as an art form and cultural medium from the 1800s to the mid-20th century, with primary focus on Hollywood cinema. FILM 342 and ENG 342 are cross-listed courses; student may not receive credit for both. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Synthesize and demonstrate mastery of the origins of American film, and its stylistic, thematic, cultural and aesthetic evolution from early silent cinema through the films of the mid-20th century.
Analyze the ways in which American cinema both reflects and shapes national values and mores.
Evaluate the role and importance of the Hollywood studio system and the notion of stardom from their early manifestations to the mid-20th century.

Articulate evolution of film technology from silent cinema to mid-century motion picture techniques.
FILM 343. Cinema Studies
II: Modern American Film
History (4). A history of the development of narrative film as an art form and cultural medium from approximately 1960 to the present, with primary focus on Hollywood cinema. FILM 343 and ENG 343 are cross-listed courses; student may not receive credit for both. Formerly COM 353; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Synthesize and demonstrate mastery of the evolving major trends, styles, themes, directorial schools, and cultural thrust of American film from mid-20th century to the present.
Analyze the ways in which post-mid-20th century American cinema both mirrors and molds national values and ideological precepts.
Analyze the ways in which the studio system, the star system, the media, and other forces related to the industry impact cinematic output after mid20th century. Summarize the major developments in cinema technology since mid-20th century.
FILM 344. Cinema Studies
III: Film Theory (5). A
focused study of the major theories of cinema and the approaches and practice of film criticism. FILM 344 and ENG 344 are cross-listed courses; a student may not recieve credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 250.

Upon successful completion of this course, the student will be able to:

Distinguish between the major film theories and critical approaches
Utilize key filmic terminology and critical vocabulary.
Assess major theoretical and critical practices as they relate to a body of film. Write professional quality film reviews and analyses.
FILM 346. Producing (4).
Theory, discussion, and practical application of planning and management fundamentals during preproduction, production, and postproduction of narrative and/or documentary programs. Formerly COM 346; students may not receive credit for both. Course will be offered every
year. Course will not have an established scheduling pattern. Prerequisite: film major status. Upon successful completion of this course, the student will be able to:
Identify terms and concepts needed to manage the production of a film or program from start to finish. Solve problems in the management of a film or program production. Deconstruct a film or program proposal.
Construct a stripboard for a narrative film or promotional program.
Design an accurate plan for scheduling and budgeting a narrative film or program. Design an accurate plan for scheduling and budgeting a documentary production.
FILM 350. Production II (5). A combined lecture and skills development course that introduces students to multicamera production with emphasis on the function and operation of studio lighting, audio, and cameras. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 340. Upon successful completion of this course, the student will be able to:
Identify and correctly use basic studio production equipment.

Demonstrate fundamental visual story knowledge using multi-camera production methods.
Prepare a pre-production plan for a multi-camera shoot. Direct and manage a live studio production.
Utilize professional editing software to create and revise the editing of a multi-cam project.

## FILM 354. History of

Television (4). Historical survey of television as an entertainment, information, and art medium. Emphasis on understanding the cultural, social, political, technological, and economic conditions of production; the examination of television as text itself; and TV's impact on audiences. FILM 354 and ENG 354 are cross-listed courses, students may not receive credit for both. Formerly COM 354; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: either COM 201 or FILM 250.
Upon successful completion of this course, the student will be able to:
Relate the historical evolution of television as an institution and as a technological and social force in American society.
Develop a critical approach for examining the historical evolution of television in America.
Ability to juxtapose the historical development of television industry, technology and/or programming with the social context of production. Demonstrate knowledge of how the chronological development of television as a technology and an industry has become a part of American history and, how TV has shaped history and our sense of it.
FILM 355. History of Documentary (4). Survey of documentary history from 1895 to present. Focus on philosophy of documentary
approach, overview of the most important topics and issues, and development of critical standards in the genre. FILM 355 and ENG 355 are crosslisted courses; students may not receive credit for both. Formerly COM 355; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: either COM 201 or FILM 250.
Upon successful completion of this course, the student will be able to:
Trace the development of documentary from its origins in primitive cinema through its changes and applications in reaction to domestic and world events and to technological developments.
Develop a critical approach for examining the historical evolution of the documentary genre
Ability to juxtapose the historical development of documentary film/video, technology and/or content/subject matter with the social context of production. Demonstrate knowledge of how the chronological development of documentary as a genre and a mode of expression has become a part of societal commentary and how documentary has shaped our sense of ourselves and the "other."
Identify and address questions germane to the field, including the distinction between fiction and nonfiction, the creation of truth and truths and the power relationships between documentarians and their subjects.
Identify and address questions germane to the field, including the formal components used in (re)constructing reality, and documentary's overall impact on history and culture.

## FILM 356. Writing for

Screen Genre (4). An
introduction to the story, style, and comedic or dramatic elements that distinguish major genres. Also explores the role
of genre in the Hollywood production system, and the impact of genre on the viewing public as assessed by critical theories. Formerly COM 356; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 267 or ENG 267 and admission to the communication or film major.
Upon successful completion of this course, the student will be able to:
Identify/explain and demonstrate the specific features of the different types of genre and hybrid genre. Identify/explain and demonstrate the nature of drama and its use in various genres.
Identify/explain and
demonstrate the nature of comedy and its use in various genres.
Identify/explain and demonstrate the role of genre in the Hollywood production system.
Identify/explain and demonstrate the impact of genre on the viewing public according to critical theories.
FILM 357. Writing for Serial
Media (4). Scriptwriting for the basic genres of serial television and the web. Includes study of serial script, structure, story, character development, and dialog. FILM 357 and ENG 357 are cross-listed courses, students may not receive credit for both. Formerly COM 357; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 267 or ENG 267 and admission to the communication, English professional and creative writing, or film major. Upon successful completion of this course, the student will be able to:
Recall and apply proper spelling, grammar, punctuation, and format for
single-camera and multicamera television scripts. Evaluate and summarize strengths and weaknesses of a television pilot script. Analyze a comedy program for story, characters, and style, and write a "spec" scene to be used in that program.
Analyze a dramatic program for story, characters, style, and emotional through-line, and write a "spec" scene to be used in that program.
Propose and pitch a concept for an original web series.
Write an episode for an original web series.

## FILM 360. Cinema Studies <br> IV: Survey of World Cinema

(5). An overview of world cinema, with attention to the national film cultures of important film-producing countries (such as India, France, Japan), and a comparison of international films with mainstream Hollywood cinema. FILM 360 and ENG 360 are cross-listed courses; a student may not recieve credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 344 or ENG 344.
Upon successful completion of this course, the student will be able to:
Examine major styles, trends, themes, and directors of a range of world cinematic cultures. Compare particular representative films from each of those countries.
Evaluate how such films represent a window into the cultures that produced them. Summarize the ways various international filmmakers both utilize and challenge the traditions and aesthetic patterns of Hollywood film.

## FILM 380. Production III

(4). An intensive hands-on skills course that offers students the opportunity to apply and demonstrate knowledge gained in earlier production courses through the
creation of short films. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 250 and FILM 350 and (FILM 267 or ENG 267) and (FILM 344 or ENG 344).
Upon successful completion of this course, the student will be able to:
Explain and demonstrate production crew roles and professional set etiquette. Prepare a script for production. Outline and organize all aspects of pre-production for class film shoots. Create short films that demonstrate a fundamental understanding of the filmmaking process. Evaluate films created in class and offer a critical analysis.
FILM 396. Individual Study (1-6). May be repeated if subject is different.
FILM 397. Honors (1-12). Prerequisite: admission to department honors program.
FILM 398. Special Topics (16).

FILM 399. Seminar (1-5).
May be repeated if subject is different.
FILM 422. Advanced MultiCamera Production (4). The creative use of multi-camera techniques for studio and remote productions. Emphasis on directing, advanced lighting techniques, sound design, graphics, and remote truck equipment. Focus on dramatic formats, magazine-style, and large event productions. Formerly COM 422; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: COM 322 and admission to either the communication studies, public relations, film, or journalism major.
Upon successful completion of this course, the student will be able to:
Examine aesthetic principles of complex studio productions.

Create a pre-production plan
for complex studio
productions.
Outline directing techniques
for a program-length
magazine-style studio production.
Design the shot list for a multicamera narrative production. Create and defend a lighting ground plan for a studio production.
Assemble completed shows through post-production applications, and appraise own and others' work.
FILM 430. Cinematography
(4). Combined lecture and intensive, hands-on camera and lighting skills course focused on the art and technique of cinematic composition; technical emphasis on lighting equipment and strategies, camera systems and operation, distinctions between film and digital formats, and the cinematographer's aesthetic contribution to the story. Formerly COM 430; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 380. Upon successful completion of this course, the student will be able to:
Appropriately employ and discriminate amongst various lens, camera, and support system options Demonstrate complex visual messaging through application of camera, lens, and support system mastery.
Construct a standard methodology for approaching lighting design and composition.
Formulate and begin to define one's own artistic visual style. Diagnose and defend the efficacy of various approaches (technical and conceptual) to visual storytelling.
FILM 431. Advanced Editing (4). History, concepts, and techniques of telling cinematic stories through editing. Handson learning by editing diverse scenes. Combination of lecture
and skills application. Formerly COM 431; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 380.
Upon successful completion of this course, the student will be able to:
Evaluate the qualities of overall structure of a featurelength narrative film. Construct a dramatic narrative scene or short film that displays the qualities of traditional continuity-style editing.
Construct a documentary scene or short film, employing techniques of documentary editing.
Construct a comedy scene or short film that displays the qualities of narrative editing for comedy.
Construct an action scene or short film that displays the qualities of narrative editing for action.
Revise a previously edited scene or short film by deviating from the script. Construct a scene or short film that displays a non-linear, discontinuity editing approach. Summarize significant trends and advancements in the history of film editing.
FILM 432. Directing (4).
Examines director's role and responsibilities, process of translating the written word into image and action; basics of camera-actor blocking; editing dialogue scenes; organizing production venues and logistics of in-studio and on-location programs. Combined lecture/workshop. Formerly COM 432; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 380.
Upon successful completion of this course, the student will be able to:
Examine the role of the director in film and television production, including the
relationships between the director and other department heads.
Assemble a production team and perform the role of the director on set.
Manage and direct actors in auditions, rehearsals, and on the set.
Defend a narrative blueprint and aesthetic vision for one or more films.
Direct a final exercise that synthesizes the skills developed through the quarter. Evaluate and offer critique of other students' work.
FILM 440. Production IV (4).
A study of methods used in the conceptualization, design, and production of non-broadcast
films. Consideration of management needs and training requirements. Formerly COM 440; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 380 and admission to the film major. Upon successful completion of this course, the student will be able to:
Prepare a business proposal for client-based film production. Differentiate between different types of client-based film productions.
Solicit and manage a clientbased film production.
Evaluate client-based films created in class and offer a critical analysis.

## FILM 447. Narrative

Screenwriting I (4). In-depth study of the theory and practice of developing a narrative screenplay. Topics include narratology, symbols and myths, cognition and storytelling, oral tradition and communication, theme, point-of-view, and voice. Formerly COM 447; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: FILM 267 or ENG 267 and admission to the communication, English
professional and creative writing, or film major. Upon successful completion of this course, the student will be able to:
Identify/explain and demonstrate the effect of the manipulation of scene construction, cinematography and editing on the creation of narrative in screenplays and teleplays. Identify/explain and demonstrate the effect of the manipulation of visual and aural continuity and discontinuity, temporal and spatial, on the creation of narrative in screenplays and teleplays.
Identify/explain and demonstrate the effect of the manipulation of semiotics (language, symbols, archetypes, mythic themes) on the creation of narrative in screenplays and teleplays. Identify/explain and demonstrate the relationship between cognition and the creation and understanding of narratives.
Identify/explain and demonstrate the relationship between oral tradition and communication, and the creation of narrative and dialog in screenplays and teleplays. Identify/explain \& demonstrate the development of theme, point-of-view, authorial voice, characters and setting on the creation of narrative in screenplays and teleplays.
FILM 450. Production V (4).
Detailed analysis of the creative and technical elements of documentary production. Emphasizes "hands-on" application of production techniques for documentary storytelling from concept through to final product. Combined lecture/workshop. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 380 and admission to the film major. Upon successful completion of this course, the student will be able to:

Compare and contrast different types of documentary films. Prepare a research proposal for documentary film production. Outline and organize all aspects of pre-production for a documentary film project. Create short films that demonstrate a fundamental understanding of documentary filmmaking.
Evaluate documentary films created in class and offer a critical analysis.
FILM 452. Applied Studio Production (1-2). Assist in producing newscasts, public affairs, and/or entertainment programs for Ellensburg Community Television, and KCWU-TV. May be repeated up to 6 credits. Formerly COM 452; students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: FILM 350. Upon successful completion of this course, the student will be able to:
Prepare and manage all necessary aspects of a live television production Set up television studio lighting and audio schemes according to professional standards
Evaluate a produced show so as to determine and explain whether professional standards have been achieved
FILM 453. Wildcat Films (3).
This course allows students the opportunity to produce narrative, documentary, marketing, and commercial films in an environment that emulates a real-world production company. Advanced students have the option of filling management positions within Wildcat Films. May be repeated up to 9 credits. Formerly COM 453; students may not receive credit for both. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: FILM 350 and film major status. Upon successful completion of this course, the student will be able to:

Manage and organize client based film productions Assess submitted scripts for production readiness Plan and organize single camera narrative and documentary film projects.
FILM 456. Advanced Concepts in Sound for Film and Stage (4). Creation of sound content for film and stage via software tools. FILM 456 and TH 456 are crosslisted courses; students may not receive credit for both. Course will be offered on even numbered years (Spring). Prerequisite: TH 256 or permission of instructor. Upon successful completion of this course, the student will be able to:
Apply acquired skills to create a basic underscore for film and stage in a variety of formats. Apply acquired skills to record original effects as well as locate and evaluate royalty-free basic Foley sound effects. Apply acquired skills to eliminate extraneous sounds from an audio recording. Apply acquired audio editing skills in the creation of sound collage work. Apply acquired skills using digital audio workstation software to manipulate and create audio content.
FILM 457. Narrative Screenwriting II (5). Combined lecture/workshop providing in-depth study of the theory and practice of developing a screenplay and teleplay writing style. Topics include mood and tone, scene structure and description, gender, age, subgroup communication and dialog techniques, non-verbal communication, and rewriting. Formerly COM 457; students may not receive credit for both. Prerequisites: FILM 447 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate comprehension of the creation of mood and tone in narrative screenwriting

Demonstrate comprehension of the range of dialog techniques Demonstrate comprehension of the differences in gender, age and sub-group communication styles.
Demonstrate comprehension of non-verbal communication techniques.
Demonstrate comprehension of good scene development and description.
Demonstrate comprehension of the skill of rewriting.
FILM 460. Cinema Studies V: Advanced World Cinema (5). Building on the foundation of Survey of World Cinema, this course focuses on world cinema in the transnational age, exploring recent developments in film and how they reflect global concerns and cinematic movements. FILM 460 and ENG 460 are cross-listed courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: FILM 360 or ENG 360.
Upon successful completion of this course, the student will be able to:
Synthesize elements of one or more international film cultures, including historical evolution; aesthetic features; cultural, social and political influences; thematic explorations; and directorial schools and trends. Analyze and critique particular films that are representative of the relevant international cinema.
Assess trans-global impacts and the ongoing discourse with
Hollywood cinema.
Estimate the impact of colonialism and post-colonial forces on world cinema.
FILM 461. Studies in Film and Culture (5). A critical examination of how American films both construct and appropriate images of American racial, ethnic, and cultural minorities and compares these constructions to those created by minority filmmakers. May be repeated
for credit under different subtitles for up to 10 credits. FILM 461 and ENG 461 are cross-listed courses; a student may not receive credit for both. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Relate the history of a minority culture (the peoples of a specific race, ethnicity or culture) in film as subjects, actors and creators. Analyze "film image" in stereotype formation and social constructs of "self" vs. "other." Critically examine the portrayal of a specific race, ethnicity or culture in film. Juxtapose the dominant discourse of the minority culture with the emerging use of film by members of that culture as part of a larger struggle for "cultural relevance and survivance"
Critically discuss of how minority filmmakers \& actors are reframing the discourse of film making.
FILM 462. Studies in Film and/or Television Genres (5).
An examination of a film and/or television genre: history, aesthetics, cultural context, social significance, and critical methodologies. May be repeated for credit under different subtitle. FILM 462 and ENG 462 are crosslisted courses; student may not receive credit for both. May be repeated up to 10 credits. Course will not have an established scheduling pattern. Prerequisite: FILM 250. Upon successful completion of this course, the student will be able to:
Describe the theory of genre as it applies to film and/or television
Examine cinematic works/ television series of a single genre such as film noir, horror, animation, musical, etc. Articulate an overview of the dominant stylistic, thematic, and ideological features of a cinematic or television genre.

Analyze, critically evaluate, and prepare critical reviews of films/TV series as characteristic of a specific genre.
Recognize and articulate the cultural and social contexts that shape film genres in various historical periods, including issues of diversity and gender, American national identity, and international perspectives
FILM 463. Studies in the Film Auteur (5). In-depth examination of major cinematic works of an auteur director, such as Hitchcock, Chaplin, Kurosawa, W. Allen, Zhang Yimou, etc., with attention to major stylistic and thematic practices. May be repeated for credit under different subtitles. FILM 463 and ENG 463 are cross-listed courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: FILM 250. Upon successful completion of this course, the student will be able to:
Students gain understanding of the theory of auteurship and a broad overview of the set of major American and international auteur directors. Students will gain a $n$ overview of the dominant stylistic, thematic, and ideological features of the works of select major American and international auteur directors. Students will gain an in-depth understanding of the cinematic works of a single auteur director such as Hitchcock, Kurosawa, Chabrol, John Ford, Zhang Yimou, Chaplin, Woody Allen, Bergman, etc.

## FILM 467. Narrative

 Screenwriting III (5). Combined lecture/workshop providing in-depth study of the theory and practice of adaptations and alternative plots for screenplays and teleplays. Formerly COM 457, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisites: FILM457 and admission to the English professional and creative writing or film majors. Upon successful completion of this course, the student will be able to:
Identify/explain and demonstrate the effect of the manipulation of scene construction, cinematography and editing on the creation of narrative in screenplays and teleplays.
Identify/explain and demonstrate the effect of the manipulation of visual and aural continuity and discontinuity, temporal and spatial, on the creation of narrative in screenplays and teleplays.
Identify/explain and demonstrate the effect of the manipulation of semiotics (language, symbols, archetypes, mythic themes) on the creation of narrative in screenplays and teleplays. Identify/explain and demonstrate the relationship between cognition and the creation and understanding of narratives.
Identify/explain and demonstrate the relationship between oral tradition and communication, and the creation of narrative and dialog in screenplays and teleplays. Identify/explain and demonstrate the development of theme, point-of-view, authorial voice, characters and setting on the creation of narrative in screenplays and teleplays.

## FILM 470. The Writer's

Room (5). This repeatable workshop course helps students develop the skills, techniques, and work ethic of a professional screenwriter. Students will pitch ideas, create outlines, write and rewrite short screenplays, and critique the work of others. May be repeated up to 15 credits. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: FILM 267 or ENG 267.

Upon successful completion of this course, the student will be able to:
Develop and prepare potential story ideas.
Outline and prepare story ideas into beat-sheets and treatments according to industry standards.
Construct and present story pitches based on developed ideas.
Compose a film script that adheres to industry standards. Assess and evaluate submitted scripts for story execution, character presentation, and thematic elements.
FILM 480. Production VI (5).
Through the creative participation in one substantial
film project this capstone course offers students the opportunity to demonstrate command of all the fundamental principles learned during their time in the Film Program. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: FILM 440 and FILM 450.
Upon successful completion of this course, the student will be able to:
Prepare and organize a script for production.
Manage and arrange all aspects of pre-production. Plan and construct a film that demonstrates a professional level understanding of the filmmaking process.
Justify various creative choices during production and postproduction.
Evaluate completed films and offer a critical analysis.
FILM 489. Film Career
Seminar (1). Students prepare end-of-major portfolios, demonstrating achievement of film program outcomes and skills appropriate to their specialization. Grade will either be S or U . Permission by instructor. Course will be offered every year. Course will not have an established scheduling pattern.

Prerequisite: film major status and instructor permission. Upon successful completion of this course, the student will be able to:
Design a career strategy.
Select and compile a portfolio of work.
Assess performance and experience in film program. Analyze and reflect strengths and weaknesses of film program.
FILM 490. Cooperative Education (1-12). Practical experience in filmrelated careers. Individual contract field experience with business, industry, government, or non-profit organization. Requires a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for a total of 12 credits. Grade will either be S or U .
Prerequisite: Film major status and permission of program director.
FILM 491. Workshop (1-6). FILM 492. Practicum (2).
Focused, practical application of classroom skills-sets to the production of film projects under faculty direction and/or supervision, and/or practice planning instruction, teaching and assessing learning in filmrelated course(s). May be repeated up to 6 credits. Grade will either be S or U . Prerequisites: film major status and permission of program director.
Upon successful completion of this course, the student will be able to:
Propose a film or script project. Manage and lead a film production or develop a script, demonstrating professional practices that meet industry expectations.
Students will appraise their own performance regarding personal motivation, reliability, and good judgment, as well as professional attitude and good communication skills Student will present and receive criticism for a
completed film production that meets deliverable requirements and receive criticism.
FILM 496. Individual Study (1-6).
FILM 497. Honors (1-12).
Prerequisite: admission to department honors program.
FILM 498. Special Topics (16).

FILM 499. Seminar (1-6). FIN 101. Financial Literacy
(5). An introduction to financial concepts relevant to everyday savers. Topics include stocks, bonds, indexes, mutual funds, the power of compounding, investing in stocks, valuation of stocks, behavioral finance, the effects of the macroeconomy on investments, and stock market valuation. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Describe how developments in finance have made markets more efficient and improved the functioning of the economy and returns for investors over time. (ST-1)
Recognize the ethical, economic, and social implications, and resultant political implications, of developments in finance. (ST2)

Formulate questions relating to long term company value that can be assessed using financial analysis techniques. (ST-3) Apply mathematical and quantitative reasoning to forecast future prospects of a company and assess overall investment worthiness. (ST-4) Demonstrate a basic understanding of fundamental concepts within finance. (WK1)

Demonstrate knowledge of scholarly and creative methods used within finance. (WK-2) Demonstrate an understanding of conceptual financial models reflecting complex challenges and real-world issues. (PCI-5)

Determine credibility of financial information sources and understand elements that might temper this credibility. (PCI-6)
Develop approaches to address individual and/or societal financial health and financial well-being issues. (HWB-4) Appraise key financial factors and strategies that propagate an individual's personal, social, and professional future wellbeing. (HWB-6)

## FIN 174. Personal Finance

(5). This course addresses the broad spectrum of financial issues encountered by individuals throughout their lives. Topics include but are not limited to: Preparing a personal budget, money management, investments, retirement planning, educational planning and insurance. Course will be offered every year (Fall, Winter, Spring, Summer). Basic Skills 4 - Math. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, a 26 Algebra, 31-College Algebra, or 31-Trigonometry, or an Accuplacer score in Elementary Algebra of $60+$ or Arithmetic of $100+$, or completed MATH 100B or a higher level math class. Upon successful completion of this course, the student will be able to:
Recognize the importance of analyzing everyday purchases and determine whether "on sale" goods or services are truly the best buy based on a comparison of the per unit cost or percent savings of similar goods and services. Explain how to analyze, interpret and make decisions based on interest rate calculations, cost of credit calculations, investment fund options, insurance variables, budget analysis, savings, debt and financial goals. Calculate percentages, fractions and ratios to analyze relationship between one's
income, expenses, assets, and liabilities
Assemble basic statistical summaries, including mean, median, mode and range when analyzing various personal finance situations.
Explain the hidden costs of credit by interpreting the fine print on purchase agreements, or in credit card offers.
Evaluate investments options such making monthly investments versus one time investments, differing rates of return and time horizon affect the outcome of saving.
FIN 298. Special Topics (1-6).
May be repeated if subject is different.
FIN 299. Seminar (1-5). May
be repeated if subject is
different.
FIN 370. Introductory
Financial Management (5).
An introduction to financial decision making. Topics include financial statement analysis, time value of money, risk and return, securities valuation, capital budgeting, cost of capital, and capital structure. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: (ACCT 251 and BUS 221 and ECON 201 and admission to a College of Business Major; or admission to a College of Business Graduate Program); or (ACCT
301 and BUS 221 and ECON
201 and admission to the Bachelor of Science, Personal Financial Planning major); or (admission to an Actuarial Science major who has completed ACCT 251 or ACCT 301 and ECON 201 and MATH 172 and MATH 173 and BUS 221 or MATH 311 with grades no lower than a C (2.0). MATH 311 may be taken concurrently.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge in prerequisite areas of accounting, economics, math, and statistics and apply these principles to problems and
decisions in financial management.
Demonstrate knowledge of principles, theory, and practices of financial management--domestically and globally--to include the following topics: time value of money, financial statement analysis, risk and return, securities valuation, capital budgeting, cost of capital, and capital structure.
Demonstrate awareness of ethics and diversity as they relate to financial management. Demonstrate written communication skills. Demonstrate ability to solve problems in financial management, using internet resources, financial calculators, and computer spreadsheets.
FIN 396. Individual Study (1-
6). May be repeated if subject is different.
FIN 397. Honors (1-12).
Prerequisite: admission to department honors program.
FIN 398. Special Topics (1-6).
May be repeated if subject is different.
FIN 399. Seminar (1-5). May
be repeated if subject is
different.
FIN 466. Working Capital
Management (5). Course
covers the management of current assets and current liabilities, describes the nature and types of short-term credit instruments, and incorporates a significant use of Excel. Prerequisite: a grade of C or higher in FIN 370 and admission to a College of Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252
and BUS 221 and BUS 241
and MATH 153 or MATH 154
or MATH 170 or MATH 172
or MATH 173 and ECON 201)
with a minimum C-grade in each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Understand a firm's short-term financing alternatives and the
various strategies it can use to fund its current and long-term assets.
Calculate various liquidity and solvency measures. They will be able to illustrate situations where a "profitable" firm can go bankrupt.
Understand the various inventory models that deal with the timing and amount of raw material inventory purchases. They will be able to calculate the "optimal" inventory and order quantity. They will also be aware of various accounting systems used to monitor inventory balances.
Evaluate a credit request and understand how various accounting systems and measurement techniques are used to monitor receivables balances. Students will also know how delinquent accounts should be handled and what alternatives a firm possesses to pursue past due accounts. Understand how firms can make the decision to take a cash discount and will be able to calculate the optimal payment timing. Students will also understand how controlled disbursement and zero balance accounts can be used to lengthen the firm's disbursement float. Explain the positive and negative impacts of bank deregulation on the management of all the current accounts.
Calculate short-term, intermediate-term and longterm forecasts. Additionally, they will be able to determine financing needs based on their forecasts.
Evaluate the effectiveness of a lockbox and concentration banking system in reducing a firm's collection float. Students will also understand the various financial models used to make the cash and securities allocation decision. Students will also be aware of the characteristics of the major short-term marketable securities.

Perform all calculations using spreadsheet cell formulas and built in functions. Students will also be able to create various types of graphs.
FIN 470. Intermediate
Financial Management (5). A review, consolidation, and extension of the FIN 370 class. Additional focus on the theory, practice, and analysis of the firm's investing and financing activities as these activities relate to the value creation process. Course will be offered every year (Fall and Spring). Prerequisites: (a grade of C or higher in FIN 370 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25) Or (FIN 370 with a minimum grade of C AND declaration of a Finance Minor) OR (FIN 370 with a minimum grade of C AND admission to an Actuarial Science major).
Upon successful completion of this course, the student will be able to:
Explain the importance of financial planning and capital utilization.
Discuss the inter-relationships between operating cash flow, financial planning and growth Apply break even and/or what if analysis to consider capital budgeting problems. Calculate the cost of capital for a company
Outline the processes companies can use to raise capital.
Discuss the relationship
between risk and return
Summarize the basics of
bankruptcy
Explain the role of dividends in corporate valuation
Prepare a cash budget and short term financial plan

Summarize the potential impact of foreign exchange rates on corporate investments
FIN 474. Personal Financial
Planning (5). Introduction to full range of financial planning decisions, including: budgeting, investing, tax planning, risk management, employee benefits, retirement, and estate planning.
Prerequisites: a grade of C or higher in FIN 370 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of all aspects of personal financial planning, including budgeting, credit management, investing and investment markets, tax planning, risk management, retirement planning and estate planning.
Demonstrate written communication skills. Demonstrate awareness of ethics as it relates to financial planning and investments. Demonstrate the ability to solve problems in financial planning using financial calculators and spreadsheets. Demonstrate awareness of ethics as it relates to investment management and professional codes of conduct in the investment industry.
FIN 475. Investments (5).
Principles of investment valuation. Topics include a survey of securities and securities markets, analysis of risk, expected return, timing, and selection of stocks and bonds in a portfolio context. Course will be offered on odd numbered years (Fall and Winter). Prerequisites: (a grade of C or higher in FIN 370 and
admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25) OR FIN 370 and admission to the Bachelor of Science in Personal Financial Planning major AND completion of BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (FIN 370 with a minimum grade of C AND declaration of a Finance Minor) OR (FIN 370 with a minimum grade of C AND admission to an Actuarial Science major).
Upon successful completion of this course, the student will be able to:
Explain the basic structure and function of financial markets Design an investment portfolio that meets a defined objective regarding risk and return Prepare a security analysis of a company
Compare the Efficient Market
Hypothesis to behavioral financial theories.
Evaluate a financial statement to make an investment determination
Discuss the role of mutual
funds as a means of investment Summarize basic investment principles

## FIN 477. International

Finance (5). Financial decision making in an international setting. Explores both traditional areas of finance and recent innovations in financial management from the perspective of the multinational corporation. Prerequisites: a grade of C or higher in FIN 370 and admission to a College of

Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Demonstrate knowledge in the principles and practices of financial management to international financial management. Communicate effectively in written financial reports. Demonstrate awareness of ethics and diversity as they relate to financial management in a global setting.
FIN 478. Management of Financial Institutions (Put on Reserve 9/16/16.) (5). Assetliability management process; investment and financing activities of banks, savings and loans, and credit unions. (Put on Reserve 9/16/16. Last taught in 2011. Will go inactive $8 / 24 / 19$.)
Prerequisites: a grade of C or higher in FIN 370 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 . Upon sucessful completion of this course, the student will be able to:
Demonstrate knowledge of the operations of depository financial institutions (banks, savings and loans, and credit unions) and their investment and funding practices. Apply strong analytical skills to solve financial problems. Effectively produce a technical report.

Demonstrate awareness of ethical and legal issues related to the management of a financial institution.
FIN 479. Derivative
Securities and Risk Management (Put on Reserve 9/16/16.) (5). Survey of characteristics, markets, and pricing of options, futures, and other derivative securities and their use in managing risk for large and small businesses and investors, domestically and internationally. (Put on Reserve 9/16/16. Last taught in 2011. Will go inactive 8/24/19.) Prerequisites: a grade of C or higher in FIN 370 and admission to a College of Business major AND
completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 .
Upon sucessful completion of this course, the student will be able to:
Explain the basic processes of hedging and speculation as risk transfer and how options and futures facilitate these processes.
Analyze the potential results of basic and advanced option combination strategies using the profit diagram framework. Describe the basic factors that determine values of put and call options, and demonstrate familiarity with two fundamental valuation frameworks-the binomial and Black-Scholes.
Describe the basic institutional characteristics of options forward and futures contracts and markets (both exchangebased and over-the-counter) in the U.S. and abroad.
Describe the relation between forward (or futures) prices and spot prices, and the reasons why forward prices may differ from futures prices.

Demonstrate examples of various hedging and speculative strategies using equity, index and currency features.
Demonstrate competence in obtaining and evaluating information from internet web sites that provide information about options, forward, and futures markets.

## FIN 493. Finance Boot Camp

(1-6). Supervised field
experience seminar focused on finance related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. Grade will either be S or U . Permission of instructor. May be repeated up to 6 credits. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp
Exhibit professional behavior and appropriate business skills in industry setting.
Establish a professional network within the industry professionals
Illustrate an awareness of the organization(s) participating in the boot camp.
FIN 496. Individual Study (1-
6). May be repeated if subject is different.
FIN 497. Honors (1-12).
Prerequisite: admission to department honors program.
FIN 498. Special Topics (1-6).
May be repeated if subject is different.
FIN 499. Seminar (1-5). May be repeated if subject is different.

## FR 151. First-year French

(5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.
FR 152. First-year French
(5). Conversational approach with intensive oral-aural drill.

Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. Prerequisite: FR 151.

## FR 153. First-year French

(5). Conversational approach with intensive oral-aural drill.
Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.
Prerequisite: FR 152.
FR 181. Rapid Review of First Year French (Put on reserve 9/16/17) (5). Intense review of first-year French for people with the equivalent for two years of school French who wish to hone their listening, speaking, reading, writing, and cultural skills and possibly continue with secondyear French. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.) Prerequisite: two years of high school French or equivalent.
Upon successful completion of this course, the student will be able to:
Describe everyday topics in the present, past, future indicative in both oral and written contexts
Employ elementary vocabulary and grammar appropriately in both oral and written contexts Distinguish appropriate use of indicative versus subjunctive moods in both present and past Examine cultural practices of Spain and Latin America Recognize appropriate use of vocabulary and grammar in both written and oral input Recognize and produce standard French pronunciation
FR 200. Introduction to French Culture (5). This course examines major historical events, social movements, and debates that situate contemporary French culture in historical perspective through a variety of cultural artifacts. Taught in English. Course will be offered every year. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to:
Describe how historical and socio-cultural developments in France such as the Revolution and colonial occupation have affected minority and majority communities and informed competing notions of citizenship and evolving political structures and practices.
Describe and evaluate sociocultural diversity in contemporary French culture and explain how culturally diverse experiences create value within French society; use critical thinking to explain why certain quarters of the society fail to value France's religious and cultural diversity. Apply critical thinking in order to analyze the ways in which equality and inequality are institutionalized in France's socio-political, economic, and/or organizational structures.
Identify and describe a number of French social movements and explain the importance of gender, sexuality, race, ethnicity, and class in relation to these social movements (how they inform both social justice movements and their ethnic nationalist counterparts). Describe and analyze local-toglobal dynamics as they shape contemporary French culture within the broader context of interdependent global systems today.
Compare and critically assess relationships between French models of citizenship to American models (compare and contrast what an informed citizen looks like in each model); and then explain in turn how these models are informed by historical, economic, cultural, economic, and political forces and processes.
FR 201. Appreciation of French Cuisine (5).
Appreciation of French cuisine through the aesthetic theories of French gastronomy, in-class
tastings, and consideration of French culture, history, and dietary habits. Taught in English. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Describe and evaluate the qualities of French cuisine accurately using the appropriate aesthetic and cultural terminology Identify techniques used in French cuisine and explain the value of these techniques in achieving an aesthetically elevated product
Relate French cuisine to French culture and history and to evolving French aesthetic norms and traditions from the 19th century to the present Distinguish and explain the differences among divergent views and approaches to French cuisine in terms of regional, social class, and religious (among other) differences
Apply aesthetic judgement and critical thinking by tasting and using appropriate vocabulary to evaluate/describe flavor profiles, textures, cooking techniques, etc.
Identify and critically assess connections between dietary habits, cultural norms governing food and drink, and individual and societal health Identify and evaluate ways in which the relationship between personal, social, professional, and economic well-being is tied to (and expressed by) dietary habits and cultural norms governing food and drink
FR 251. Second-year French
(5). Thorough review of French grammar and graduated readings in modern French prose with discussions conducted in French. Courses must be taken in sequence.
FR 252. Second-year French (5). Thorough review of French grammar and graduated readings in modern French prose with discussions
conducted in French. Courses must be taken in sequence. Prerequisite: FR 251.
FR 253. Second-year French
(5). Thorough review of French grammar and graduated readings in modern French prose with discussions conducted in French. Courses must be taken in sequence. Prerequisite: FR 252.
FR 298. Special Topics (1-6).
FR 299. Seminar (1-5). May
be repeated if subject is different.
FR 301. Introduction to French Literature (3). This course is designed as a transition course to prepare students for the advanced literature courses. Appreciation of literature and methods of analysis will be taught on a basic level through the careful examination of specific texts. Prerequisite: FR 253.
FR 341. Intermediate Composition and Grammar (Put on reserve 9/16/15.) (3).
Should be taken in sequence
with FR 441. Put on reserve
$9 / 16 / 15$. Will go inactive
8/24/18. Prerequisite: FR 253.
FR 343. Intermediate
Conversation (Put on reserve
$9 / 16 / 15$.) (2). Put on reserve $9 / 16 / 15$. Will go inactive
8/24/18. Prerequisite: FR 253.
FR 351. French Civilization
I: Pre-history to the
Revolution (4). An overview of continental French history and culture from pre-history to the 1789. Prerequisite: FR 253. Upon successful completion of this course, the student will be able to:
Describe major historical developments in continental France from the pre- historical era to the French Revolution. Identify major movements and important people in the literature, plastic arts, and music of the pre-Revolutionary period in France.
Identify some salient aspects of the historical development of the French language from the pre-Roman era to the Eighteenth century.

Read a French history text book and literary works from the period written in French and summarize these works in appropriate written French. Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French.
Use spoken French to describe and evaluate a limited selection of cultural artifacts within their historical context in an organized and comprehensible manner to their peers.
FR 352. French Civilization
II: Revolution to 1968. (4).
An overview of continental
French history and culture from the French Revolution to cultural revolution of 1968. Prerequisite: FR 253.
Upon successful completion of this course, the student will be able to:
Describe major historical developments in continental France from the Revolution to 1968.

Identify major movements and important people in the literature, plastic arts, and music of France during the period between 1789 and 1968. Identify some salient aspects of the historical development of the French language during the period between 1789 and 1968. Read a French history text book and literary works from the period written in French and summarize these works in appropriate written French. Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French. Use spoken French to describe and evaluate a limited selection of cultural artifacts within their historical context in an organized and comprehensible manner to their peers.
FR 353. French Civilization
III: Contemporary France
(4). An overview of contemporary French culture through readings and viewings of French media with emphasis on topics such as immigration,
religion, globalization, and politics of the family. Prerequisite: FR 253. Upon successful completion of this course, the student will be able to:
Outline the basic lineaments of social issues unique to contemporary French society such as immigration, religion, globalization, and politics of the family.
Identify and characterize major French media (including newspapers, television shows, social media outlets, and magazines) in regards to their treatment of contemporary social issues.
Acquire a basic level of sociolinguistic awareness concerning the French spoken by minority and youth communities in France today. Read French newspapers and other contemporary print and online media written in French and summarize these works in appropriate written French. Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French.
Use spoken French to describe and evaluate a limited selection of cultural artifacts within their historical context in an organized and comprehensible manner to their peers.
FR 361. Cultures of the
French Caribbean (4). A
survey of the history and cultures of the French Caribbean from the colonial era to the present. Prerequisite: FR 253.
Upon successful completion of this course, the student will be able to:
Describe the broad historical development of French Caribbean culture from the colonial era to the present. Identify major movements and important people in the literature, plastic arts, and music of French Caribbean culture.
Identify linguistic and dialectal particularities of French

Caribbean culture in broad terms.
Read French historical and anthropological treatments of the French Caribbean, and literary works from the region written in French, and summarize these works in appropriate written French. Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French. Use spoken French to describe and evaluate a limited selection of cultural artifacts from the French Caribbean within their historical and cultural context in an organized and comprehensible manner to their peers.
FR 362. Cultures in French
Canada (4). A survey of the history and cultures of francophone Canada from the colonial era to the present. Prerequisite: FR 253.
Upon successful completion of this course, the student will be able to:
Describe the broad historical development of French Canadian culture from the colonial era to the present. Identify major movements and important people in the literature, plastic arts, and music of French Canadian culture.
Identify linguistic and dialectal particularities of French Canadian culture in broad terms.
Read French historical and anthropological treatments of French Canada and literary works from the region written in French, and summarize these works in appropriate written French.
Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French. Use spoken French to describe and evaluate a limited selection of cultural artifacts from francophone Canada within their historical and cultural context in an organized and
comprehensible manner to their peers.
FR 363. Cultures of Francophone Africa (4). A survey of the history and cultures of francophone Africa, including the Maghreb and Sub-Saharan Africa, from the colonial era to the present. Prerequisite: FR 253.
Upon successful completion of this course, the student will be able to:
Describe the broad historical development of francophone African cultures from the colonial era to the present. Identify major movements and important people in the literature, plastic arts, and music of francophone African cultures.
Identify linguistic and dialectal particularities of francophone African cultures in broad terms.
Read French historical and anthropological treatments of francophone Africa, and literary works from the region written in French, and summarize these works in appropriate written French. Identify the main points and/or summarize the basic argument of authentic video recordings in French in appropriate written French. Use spoken French to describe and evaluate a limited selection of cultural artifacts from francophone Africa within their historical and cultural context in an organized and comprehensible manner to their peers.
FR 380. Topics in French Language, Literature and Culture (4). This course will offer different topics on a rotating basis: these topics will include French language (grammar and conversation),
French and Francophone
literature and cinema, and
French and Francophone
cultures. May be repeated up to 12 credits. Prerequisite: FR 253 or by permission of instructor.

Upon successful completion of this course, the student will be able to:
Identify and correctly utilize advanced grammatical and morphological concepts in French
Express ideas on specific
concepts orally and in wellorganized compositions in French
Identify literary and cinematographic phenomena and terminology within the context of French and Francophone history and culture
Analyze French and Francophone literary texts and movies
Identify cultural traits specific
to French and Francophone
cultures and analyze them
within an historical context
Analyze French and
Francophone cultures and compare them to other cultures
FR 384. Defying Nazism:
German and French
Resistance during WWII (5).
Course focuses on the
Resistance movements in
Germany and France as people
from both countries struggled
to come to terms with Hitler
and Nazism. FR 384 and
GERM 384 are cross-listed
courses; a student may not receive credit for both. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Identify and describe the ways in which beliefs and values affect interpretations of experiences and events. Interpret the events experienced in France and Germany from WWI to WWII and compare them to similarly significant historical events. Identify the causes of the German and French Resistance movements.
Examine and explain the effects of the German and French Resistance movements on the government and citizens of each country.

Recognize the interrelatedness of human concerns that transcend geographical and cultural boundaries. Identify and interpret the significance of salient cultural and historical details of resistance movements.
FR 396. Individual Study (1-
6). May be repeated if subject is different.
FR 397. Honors (1-12).
Prerequisite: admission to department honors program.
FR 398. Special Topics (1-6).
FR 399. Seminar (1-5). May
be repeated if subject is different.
FR 442. Translation and Interpretation (Put on reserve 9/16/15.) (2). Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: FR 342.
FR 460. French Cinema (4).
Students will view and analyze French films as a backdrop to the discussion of the history of French cinema.
Upon successful completion of this course, the student will be able to:
Identify the major genre of French cinema and apply their individual characteristics to specific films shown in class.
FR 491. Workshop (1-6). May be repeated for credit.
FR 496. Individual Study (16).

FR 497. Honors (1-12).
Prerequisite: admission to department honors program.
FR 498. Special Topics (1-6).
FR 499. Seminar (1-5). May
be repeated if subject is different.
GEOG 101. World Regional Geography (5). An introduction to the dynamic landscapes of the world's major regions, examining socioeconomic, political, demographic, cultural and environmental patterns, processes, and issues. SB-
Perspectives on World Cultures. Course will be offered every year (Fall, Winter, Spring and Summer).

Upon successful completion of this course, the student will be able to:
Recognize the key factors shaping contemporary demographic, environmental, social, cultural, political, and economic issues in major world regions.
Apply course concepts and disciplinary language to interpret how ethnic diversity, social inequality, and similar dimensions of difference are manifest in economic and political systems in major world regions.
Propose ways in which the student can participate meaningfully and ethically in the economy, politics, and the environment at the global scale.
Use the concepts of geography generally and ideas taught in world regional geography in particular to analyze development problems.
GEOG 107. Our Dynamic
Earth (5). The complex weather, climate, water, landforms, soils, and vegetation comprising Earth's physical environments over space and time. Incorporates map interpretation and scientific analysis in understanding various landscapes and human impacts upon those landscapes. NSPatterns and Connections Natural World. Course will be offered every year (Fall, Winter, Spring and Summer). Upon successful completion of this course, the student will be able to:

Describe how geographic research provides greater understanding of Earth's physical environment and its implications for human sustainability and decisionmaking at various scales. Describe how physical geographers use the scientific method to generate testable hypotheses about real-world physical phenomena using such tools as maps, remotely-
sensed images, and field observations.
Gather and statistically analyze quantitative data regarding the spatial and temporal variability of the Earth's physical systems and environments, and evaluate the validity those findings. Demonstrate knowledge of the fundamental processes and components of each of the five spheres of the physical environment (i.e., atmosphere, hydrosphere, biosphere, lithosphere, and pedosphere) and how they affect current issues and sustainability at local to global scales. Apply knowledge of physical geography concepts gained in the classroom to propose solutions to current real-world problems and address issues of sustainability.
GEOG 111. The Power of Maps (4). Investigates the problem-solving potential and societal implications of maps and location technologies, including online maps, GPS, geographic information systems (GIS), Google Earth, and virtual reality. Discusses critical map reading, privacy, and mapping for social justice. Course will be offered every year (Fall and Winter).
Upon successful completion of this course, the student will be able to:
Explain how people make maps using digital technology, and discuss possibilities for addressing real-world problems using digital and online maps. Discuss and put in practice the science of how maps communicate, including the elements of measurement, spatial reference, database technology, and artistic design that allow the earth to be represented digitally and on paper.
Demonstrate how GPS and other satellite-based navigation systems can operate in tandem with spatial databases to solve problems.
Tell what a geographic information system (GIS) is and list career opportunities
that use GIS, maps, and other location technologies. Use an online mapping and analysis program to demonstrate how GIS can support decision making Explain how social and cultural contexts and design choices by a cartographer influence maps. Interpret maps from the news and current events with a critical eye. Discuss privacy and surveillance issues associated with maps and location technology. Explain how maps can empower. Give examples of how maps have been used for social justice, sustainability, and crisis response.
Explain how maps can endanger and marginalize. Give examples of how maps have been used for earning money, obtaining power, instigating conflict, and enabling violence. Use virtual reality and 3D visualizations to enhance an understanding of a place or tell a story more effectively through maps.
GEOG 208. Our Human
World (5). Explores the historical diffusion and contemporary spatial distribution of cultures, religions, and languages. Evaluates how these features interact with economic and political systems to create distinctive places at scales ranging from local to global. Formerly GEOG 108, student may not receive credit for both.
SB-Foundations of Human Adaptations and Behavior. Course will be offered every year (Fall, Spring and Summer).
Upon successful completion of this course, the student will be able to:

Define the role of space, place, scale, environment, and location in shaping the cultures of the world including religious faith, language, and other attributes.

Explain the relevance of geographical theories including territoriality, the demographic transition, and the new international division of labor to the relationships among places, individuals, and society.
Employ human geography techniques taught in class to analyze real-world data
Apply theories and concepts taught in the course with information collected by the student to examine a cultural phenomenon
Analyze the ways in which people organize space to foster either greater equality or greater inequality in societies.

## GEOG 250. Resource

## Exploitation and

Conservation (4). Explores the
historical, cultural, political, socio-economic perspectives of natural resource use, extraction, and sustainability at local to global scales. Students will examine resources and decision-making as citizens of campus, the Pacific Northwest, and the World. Course will be offered every year (Fall, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Identify the variety of natural resources present in our world today (for example, perpetual, renewable, non-renewable, and potential resources) and the principal methods of extraction, exploitation, and conservation. Identify and explain the physical, social, economic, technological, and political factors that determine natural resource availability, consumption, and conservation. Interpret local and regional landscapes in terms of historical processes, policy, and patterns of natural resource extraction
Assess specific resources (agriculture/food production, energy, water, forest, marine resources) in terms of the factors fostering
overexploitation and to assess alternative solutions for conservation.
GEOG 273. Geography of Rivers (5). Drawing on local, regional, and global case studies, this course examines rivers as bio-physical systems, impacted by natural and anthropogenic forces. Focus is placed on human development of floodplains and ecosystem functioning within riparian areas. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:

Recognize the variety of diverse cultural, social, political, and economic drivers and institutions present in modifying riparian corridors. Students will analyze how these diverse stakeholders and institutions affect issues of equality, access to resources, and human well-being. Define and explain the economic impacts, social processes, and political factors that influence floodplain development and management. Students will analyze how these modifications affect the sustainability and ecologic viability of floodplain ecosystems.
Analyze the relevant laws and policies governing water management and how they affect water allocations, and ecological conditions. Students will describe the adaptation of environmental laws and management policies that impact riverine infrastructure and its use.
Describe the adaptation of environmental laws, the theories behind the creation of those management policies that impact riverine infrastructure, their use, and their impact on sustainability and ecologic viability of floodplain ecosystems.
Recognize the ecological impacts anthropogenic
modification of riparian habitats has on various species. GEOG 279. Geography of the West (1-12). In-depth field examination of the complex, physical, human, and resource issues of one or more of the varied sub regions of western North America. May be repeated for up to 12 credits under a different topic. Upon successful completion of this course, the student will be able to:
Identify and describe the physica, human, and resource geography of the area studied. Collect and analyze data on physical, human, and resource issues of the area studied, then communicate the results of the analysis to their peers. Demonstrate proficiency in functioning as a member of a group in an outdoor setting.
GEOG 290. Cooperative Education Field Experience (1-5). Individualized field experience with business, industry, government, or other agency. Requires a student learning plan, cooperating employer supervisors, and faculty coordinator. By permission. May be repeated for up to 10 credits. Grade will either be $S$ or $U$. Prerequisite: sophomore standing or above.

## GEOG 298. Special Topics

 (1-6). May be repeated if subject is different.GEOG 299. Seminar (1-5). May be repeated if subject is different.
GEOG 301. Introduction to GIS and Maps (4). Introduction to Geographic Information Systems (GIS) with an emphasis on cartographic communication, map use in a digital environment, and the basics of ESRI GIS software. Formerly GEOG 203, students may not receive credit for both. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of basic cartographic principles
such as scale, direction, and symbolization.
Provide evidence of competence in describing location using standardized coordinate systems and datums.
Show ability to interpret basic terrain symbolization on maps (e.g. contour lines).

Exhibit knowledge of GIS software, including basic data management and display. Provide evidence of cartographic interpretation skills that may be used in a variety of other geography classes.
Combine knowledge learned through lecture, labs, reading, and software skills.
GEOG 303. GIS and Data
Management (5). Geographic
Information Systems (GIS),
focusing on data acquisition, data management, data errors, classification, and implementation considerations. Applied experience using GIS software. Course will be offered every year (Fall and Winter). Prerequisites: GEOG 301 (Formerly GEOG 203). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of data representation in GIS (raster, vector, attributes, time, topology), data types, data quality, metadata, and data capture).
Have knowledge of general GIS functionality, including display, overlay, and analysis. Interpret basic terrain symbolization on maps (e.g. contour lines).
Demonstrate knowledge of computer-based skills using modern GIS software. Have knowledge of the general context of GIS , including: What is GIS and how is it used? History and trends in GIS.
Combine knowledge learned through lecture, labs, reading, and software skills.
GEOG 304. Economic Geography (5). Geographic survey of human livelihood
and interaction with the environment. Agriculture, industry, and urbanization are examined in the context of an increasingly interdependent world system. Course will be offered on even numbered years (Winter).
Upon successful completion of this course, the student will be able to:
Learn the differences between primary, secondary, tertiary and quaternary economic activities, particularly the different factors that affect how they are located.
Develop knowledge of economic models of how different activities are located within and among regions. Learn how human activities have transformed the environment and how these activities are motivated by economic incentives. Gain computer skills through lab exercises to obtain information and data from online sources and learn how to use computer technologies in appropriate ways to present and analyze that data. Obtain knowledge of an economic issue in the region by doing a research paper on a topic within the Pacific Northwest, taking pictures/slides for final project presentation. This written and oral presentation will improve their research, writing, and presentation skills.
GEOG 305. Introduction to Land Use Planning (5). Investigation into the process and practice of urban and regional planning. Emphasis on historical development, legal foundations, and techniques of planning in the United States. Course will be offered every year (Winter).
GEOG 306. Transportation Geography and Planning (4). Introduction to the planning and spatial analysis of transportation networks. Evaluation of the economic, environmental, and social consequences of major transportation modes.

Application of transportation planning principles at the local, regional, and national scales. Course will be offered on on odd numbered years (Fall). Upon successful completion of this course, the student will be able to:
Analyze a transportation problem from a spatial perspective.
Perform and interpret transportation network analyses.
Evaluate the role of transportation in affecting contemporary patterns of economic development. Develop a viable urban or regional transportation plan.

## GEOG 308. Cultural

Geography (4). Spatial aspects of human cultures and landscapes. Course will be offered on odd numbered years (Spring). Prerequisites: GEOG 208 (Formerly GEOG 108) or instructor permission. Upon successful completion of this course, the student will be able to:
Identify key elements of human culture and their manifestations in the landscape at a variety of scales. Identify and analyze the socioeconomic, political, religious, and technological forces affecting the connections between places. Describe the diffusion and adaptation of a cultural trait or technological innovation effectively using concepts taught in the course. Develop an understanding of the emergence of cultural geography as a sub discipline, including major paradigms and approaches to the geography of culture.

## GEOG 311. Qualitative

 Methods in Geography (Put on reserve 9/16/17) (4). Introduces students with qualitative research methods in geography with particular attention to participatory observation, interviews, data transcription, oral histories, focus groups, descriptive narrative, archival research,document analysis, data coding and interpretation strategies. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Explain how qualitative research contributes to scientific knowledge. Master data collection and analysis skills to conduct qualitative research independently and proficiently. Demonstrate knowledge about research ethics and know how to practice them when conducting research. Identify the need for engaged scholarship, and community based research. Conduct sensitive research that is aware of power dynamics in the research relationship, and to mitigate imbalances through strategies of reflexivity, situation, transparency, accountability and reciprocity. Survey critical insights from post-structural, postcolonial and feminist literature on qualitative methodologies.
GEOG 315. Geography of Oceania (Put on Reserve 9/16/16.) (4). Examination of the physical and cultural geography, humanenvironment interactions, landscapes, and regional diversity of Australia, New Zealand, and the Pacific Islands. Formerly GEOG 415, students may not recieve credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Identify the locations of main cultural and political features of Australia, New Zealand, and the Pacific Islands.
Demonstrate knowledge of the landforms, climate, and biota that characterize Oceania as a region.
Identify the historical, cultural, physical, and economic characteristics of Oceania as a region.

Develop in-depth knowledge of one of the Pacific Island groups, including physical and cultural landscapes and contemporary problems and issues.
GEOG 325. Field Methods in Geography (5). Introduction to geographic field research. Survey and application of techniques and methods in physical and/or human geography. Includes research design, data collection and organization, interpretation and analysis of results. Permission of instructor. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the basic tools, techniques, and methods used for field data collection in physical and/or human geographic inquiry. Explain the key techniques and theoretical approaches of different geographic field research methods. Demonstrate the ability to evaluate appropriate data collection methods for specific types of field research. Design a field-based study, collect, organize, and analyze data, and integrate scientific literature to interpret and summarize results. Demonstrate the ability to work effectively as part of a group in a field context.
GEOG 330. Airphoto Interpretation (5).
Introduction to airborne photography and the tools and techniques to apply this photography to geographical issues. Three hours lecture and two hours laboratory per week. Course fee required. Formerly GEOG 410, students may not receive credit for both. Course will be offered every year
(Fall). Corequisite: GEOG 301 (Formerly GEOG 203).
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of scale, projections, theories and
physics of light by applying them on specific assignments. Interpret topographic maps and aerial photographs using metadata and physical keys of scale.
Explain how and where to access analog and digital maps and aerial photos on the CWU campus, in the public and private sphere for use in different projects.
Collect field data and then construct a dataset overlaying field data on aerial photographs, and maps Calculate height, distance, and area using aerial photo and digital imagery.
GEOG 346. Political
Geography (4). The spatial structure of political units. The effect of political, economic, social, and Earth resource factors on the areas, shapes, and boundaries of these units, and on the distribution of populations and institutions. Course will be offered every year (Winter).

## GEOG 352. Geography of

 North America (4) Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of the United States, Canada, and Mexico. Course will be offered on even numbered years (Winter) Upon successful completion of this course, the student will be able to:Identify the locations of main cultural and political features of North America. Identify the physical features and processes that characterize North American sub regions Analyze the interconnection of physical and human systems in North America.
Interpret the causes and frameworks of contemporary political, social, economic, and environmental issues in North America. Identify and interpret the historical foundations of North American culture, society, politics, economies, and landscape change

Analyze the complexity of North American cultural landscapes at multiple scales.
GEOG 355. Geography of the Pacific Northwest (4).
Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of the Pacific Northwest. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Learn locations of major physical and human geographic features of the United States Canada and Mexico, including mountain chains, rivers and lakes, urban areas, and political units such as states and provinces. Develop knowledge of diverse environments of the three countries, including geologic and geomorphologic conditions, climate and weather patterns, and floral and faunal assemblages. Develop a knowledge of aboriginal (First Nations) population distributions and lifeways on the continent, of colonial invasion and settlement, natural resource exploitation schemes, and subsequent economic and political developments leading to transportation improvements, industrialization, and urbanization. Learn the art of map interpretation using both physical and thematic cartography. Improve their research, writing and presentation skills.
GEOG 361. Soils (5).
Properties, factors, processes, and classification of Earth's soils, past and present. Four hours lecture and three hours of laboratory or field trips each week. GEOG 361 and GEOG 461 are layered courses; students may not receive credit for both. Course will be offered every year (Spring).
Prerequisite: GEOG 107.

Upon successful completion of this course, the student will be able to:
Identify the various soil processes and factors, and the resulting soil properties. Communicate in the language of the discipline.
Apply the basic concepts of soils to the various pedogenic processes.
Demonstrate the use of the various tools and techniques of soils.
GEOG 366. Geography of the Middle East (4).
Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of the Middle East. Course will be offered on even numbered years (Fall).
Upon successful completion of this course, the student will be able to: Identify and interpret the principal physical, environmental, demographic, cultural, economic and geopolitical characteristics of the Middle East.
Identify place names and major physical and cultural features of the Middle East. Describe and interpret issues surrounding the Arab Israeli conflict, including social, political, and economic characteristics.
Redraw the maps of the Middle East to reflect knowledge learned about the region using computer mapping programs. Analyze current issues relevant to a Middle Eastern country of their choice, keep a well written journal of these events and be prepared to report on this in class.
GEOG 368. Geography of Middle America (4).
Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Mexico, Central America, and the Caribbean. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to:
Identify the locations of main cultural and political features of Mexico, Central America, and the Caribbean. Identify the physical features and processes that characterize middle America as a region. Analyze the interconnection of physical and human systems in the region.
Analyze contemporary political, social, economic, and environmental issues in Middle America.
Link the historical foundations of Middle American culture, society, politics, economies, and landscape change to contemporary regional characteristics.

## GEOG 370. Geography of South America (4).

 Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of South America. Course will be offered on odd numbered years (Fall).Upon successful completion of this course, the student will be able to:
Identify the locations of main cultural and political features of South America.
Identify the physical features and processes that characterize South America as a region. Analyze the interconnection of physical and human systems in the region.
Analyze contemporary political, social, economic, and environmental issues in South America.
Link the historical foundations of South American culture, society, politics, economies, and landscape change to contemporary regional characteristics.
GEOG 371. Geography of
Europe (4). Examination of the physical and cultural geography, humanenvironment interactions, landscapes, and regional diversity of Europe. Course
will be offered on odd numbered years (Winter). Upon successful completion of this course, the student will be able to:
Identify the locations of the main economic, cultural and political features of Europe Identify the geophysical features and processes that characterize Europe as a distinct region.
Analyze the interconnection of physical and human systems in the region.
Analyze contemporary economic, political, cultural, and environmental issues in Europe.
Link the historical foundations of European society, economics, politics, culture, and landscape change to contemporary regional characteristics.
GEOG 372. Geography of Russia (4). Examination of the physical and cultural geography, humanenvironment interactions, landscapes, and regional diversity of Russia. Course will be offered on odd numbered years (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the principal physical, environmental, demographic, cultural, economic and geopolitical characteristics of Russia and its neighbors. Demonstrate knowledge of place names, and major physical and cultural features of the region.
Give a coherent, concise, and effective oral presentation describing and analyzing a place, problem or trait in the region.
Analyze the impact of the historical geography of the Soviet Union on the new countries that have replaced it. Analyze an issue concerning Russia and its neighbors through careful research and writing.
GEOG 373. Water Resources
(4). Foundation course for
understanding the physical and social dimensions of water resource use on a global scale. Special attention paid to issues in the American West. GEOG 107 is recommended. Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Know the flows and storages of water through the hydrologic system and how it is measured.
Know the temporal and spatial variations in the water resources of different areas.
Know the history of US. water development and its legal framework.
Know the alternative water management strategies and their consequences. Know the selected contemporary water resource issues (i.e. interbasin transfers. Snake River dam breaching).
GEOG 375. Geography of
Asia (4). Examination of the physical and cultural geography, humanenvironment interactions, landscapes, and regional diversity of Asia. Formerly GEOG 475, students may not receive credit for both. Course will be offered on even numbered years (Spring). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the principal physical, environmental, demographic, cultural, economic, and geopolitical characteristics of Northeast and Southeast Asia and the interaction among those systems.
Analyze the economic, cultural, political, demographic, and technological forces affecting specific places in Northeast and Southeast Asia.
Give a coherent, concise, and effective oral presentation describing and analyzing a place, problem or trait in Asia.

Demonstrate knowledge of the basic place name geography of Northeast and Southeast Asia. Analyze a complex issue in the context of Asia through careful research and writing.
GEOG 379. Geography of the West (1-12). In-depth field examination of the complex physical, human, and resource issues of one or more of the varied sub-regions of western North America. May be repeated for up to 12 credits under a different topic. Upon successful completion of this course, the student will be able to:
Identify and describe the physica, human, and resource geography of the area studied. Collect and analyze data on physical, human, and resource issues of the area studied, then communicate the results of the analysis to their peers.
Demonstrate proficiency in functioning as a member of a group in an outdoor setting.

## GEOG 381. Urban

Geography (4). The spatial and size distribution of cities as explained by their historical development and major functions. Analysis of the internal structure of cities and the results of urban growth. Formerly GEOG 481, students may not receive credit for both. Course will be offered on even numbered years (Fall).
GEOG 382. Hydrology (5). Provides a comprehensive introduction to both the global and local hydrologic cycle. Covers constituent processes, their measurements and quantitative relationships, plus basic water quality parameters. GEOG 382 and GEOG 482 are layered courses; students may not receive credit for both. Course will be offered every year (Fall). Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Interpret the emergence of cities in both historical and contemporary eras. They will identify the benefits (and costs)
of cities in regards to a wide variety of issues, including: economies, the environment, cultures, etc.
Compare the urbanization process around the globe, and discuss bow it is changing global cultures and economies. Identify the processes of urban change and growth, and analyze the economic, social, cultural, and political forces that shape urban landscapes.
GEOG 386. Geomorphology
(5). Descriptive and interpretive examination of the Earth's landforms and the processes and factors that shape these features over space and time. Four lectures and three hours laboratory or field trips each week. GEOG 386, GEOG 486, and GEOL 386 are cross-listed courses; students may not receive credit for more than one. Course will be offered every year (Spring).
Prerequisites: (GEOL 101 or GEOL 102 or GEOL 103 and GEOL 101LAB) or GEOG 107.

GEOG 387. Biogeography
(5). Investigates the functional relationships between
biophysical processes and their spatial and temporal patterns at various scales. Introduces approaches to land systems analysis focusing upon ecosystems. GEOG 387 and GEOG 487 are layered courses, students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: GEOG 107.

Upon successful completion of this course, the student will be able to:
Identify and describe various principal biogeographical processes and systems. Communicate in the language of the discipline. Describe and analyze the physical processes that generate biogeographical patterns of life on Earth. Research a topic related to biogeography, write a scientific paper about that research, and
articulately present the research to the class.
GEOG 388. Weather and
Climate (5). Elements, factors and processes affecting Earth's climates, present, past, and future. Four hours lecture and two hours laboratory/field per week. Course fee required. GEOG 388 and GEOG 488 are equivalent courses, students may not receive credit for both. Course will be offered on even numbered years (Winter).
Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Analyze, describe, and diagram the basics of the Earth's atmosphere and major atmospheric processes including energy, pressure, wind, precipitation, air masses, fronts, and storms.
Communicate in the language of the discipline. Recognize the relationships and linkages between the partsof the Earth's energy budget and explain the factors controlling temperature and precipitation patterns on Earth and to describe the distribution of climates of the World. Describe the impacts of weather on human activity and impacts of humans on climate. Understand the tools and technologies used to produce weather forecasts and to be able to locate and interpret weather maps and satellite images available on the www. Describe and analyze past, present, and future trends in natural and anthropogenic climate change.
GEOG 396. Individual Study (1-6). May be repeated if subject is different.
GEOG 397. Honors (1-12).
Prerequisite: admission to department honors program.
GEOG 398. Special Topics (1-6).
GEOG 399. Seminar (1-5). GEOG 401. Advanced Topics in Regional Geography (Put on reserve $9 / 16 / 17$ ) (3).
Detailed examination of selected topics in regional
geography. Topics will vary; consult with instructor. May be repeated up to 6 credits. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Prerequisite: 300-level regional geography course in area of course emphasis or permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify and describe physical and human features of places. Identify and interpret the events and processes that shape historical and contemporary development of places and landscapes at local and regional scales. Analyze historical or contemporary issues and themes in regional geography as they apply to specific places.
GEOG 404. GIS Analysis (5). This course development of Geographic Information Systems (GIS) use; emphasis is placed on analysis of geospatial datasets. Lecture and practical applications. GEOG 404 and GEOL 404 are crosslisted courses; students may not receive credit for both. Course will be offered every year (Winter and Spring). Upon successful completion of this course, the student will be able to:
Demonstrate ability to use GIS software to create and model solutions to problems Demonstrate ability to define, analyze, and solve a particular geographic problem. Ability to apply geospatial analysis to knowledge from the disciplines of Geography, Anthropology, Biology, Geology, and/or Computer Science.
Demonstrate knowledge of computer-based skills using modern GIS software Recall and integrate knowledge gained through lecture, labs, reading, and software skills.
GEOG 405. Advanced Topics in Land Use Planning (3).
Selected issues and problems in land use planning and environmental control. Topics
may include growth management, small town and rural planning, or coastal zone management. May be repeated for credit under a different subtitle. Course will be offered on odd numbered years (Spring). Prerequisite: GEOG 305.

GEOG 407. Advanced Topics in Physical Geography (Put on Reserve 9/16/16.) (3).
Topics will vary; consult with instructor. May be repeated for credit under a different topic up to 6 credits. (Put on Reserve 9/16/16. Last taught in 2013 Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Critically analyze current research in various subfields of physical geography.
Develop working knowledge of advanced research techniques in various subfields of physical geography. Demonstrate the ability to critically evaluate current issues, themes, and problems in in various subfields of physical geography.

## GEOG 408. Advanced Topics

in Human Geography (3).
Focuses on the content of GEOG 308 in greater detail with particular emphasis on land use in non industrial societies. Topics will vary; consult with instructor.
GEOG 409. Quantitative Methods in Geography (5).
Quantitative analysis assessment in geography and resource management
Emphasis on spatial statistics. Formerly GEOG 309, students may not receive credit for both.
Course will be offered every year (Winter). Prerequisite:
MATH 130 or postbaccalaureate/graduate student standing.
Upon successful completion of this course, the student will be able to:
Apply various sampling methods, descriptive statistics, and spatial descriptive statistics to a wide variety of
geographical problems.

Decide which inferential statistical test is most appropriate for a particular research question /problem Use a standard statistical computer package for a variety of descriptive and inferential statistical tests.
Test for assumptions that need to be met before applying a specific parametric or nonparametric statistical test. Interpret and present output from a standard statistical computer package for a variety of descriptive and inferential statistical tests.
Evaluate and critique geographical research which uses statistical techniques.
GEOG 411. GIS
Programming (5).
Customization and automation of geographic information systems (GIS) software using programming in the Python language. Previous programming experience is helpful, but not required. Course will be offered every year (Spring). Prerequisite: GEOG 303.
Upon successful completion of this course, the student will be able to:
Explain how automation through computer programming makes GIS easier, faster, and more accurate.
Use fundamental constructs of computer programming, such as variables, loops, counters, decision trees, and functions. Write programs that automate GIS data processing tasks Write programs that read and modify GIS databases Write programs that perform analysis with grid-based GIS datasets (i.e., rasters).
Write programs that create GIS datasets from text-based files (such as spreadsheets or GPS files)
Explain how Python and other languages could be used to customize the look and feel of a GIS program, and the benefits this would bring.
GEOG 417. Advanced GIS
(4). Advanced GIS principles,
techniques, analysis, and application. Lecture and practical hands-on experience. Applied experience using GIS software. GEOG 417 and GEOL 417 are cross-listed courses; students may not receive credit for both. Course will be offered every year (Fall and Spring). Prerequisites: GEOG 404 or GEOL 404. Upon successful completion of this course, the student will be able to:
Justify, apply, employ, and interpret input data to solve a geographic problem Recognize different ways in which GIS can be applied in a variety of fields
Demonstrate and apply knowledge of graphic and text presentation and communication skills Demonstrate knowledge of computer-based skills using modern GIS software Recall and integrate knowledge learned through lecture, labs, reading, and software skills
GEOG 422. Geography of Food and Agriculture (4).
Overview of food and agriculture as it relates to specific geographic regions, production regimes, trade, and cuisine. Domestic and international issues explored through lecture and field study. Course will be offered on even numbered years (Spring).
Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify source regions for globally important staple and commercial crops. Understand local food production and agricultural issues.
Understand the major components of the global food system.
Interpret current social debates concerning food and food production.
Develop in-depth understanding of specific issues and themes in food and agricultural production.

GEOG 427. Environmental Archaeology (4). Analyses of sediments and plant and animal remains from archaeological sites are used to explore relationships between humans and their environments. Case studies combine natural and physical sciences to study long-term change in landscapes and ecosystems.
ANTH427/527 AND GEOG427/527 are cross-listed courses. Graduate credit requires an additional research paper to be specified in syllabus. Prerequisites: ANTH 120 or GEOG 107. Upon successful completion of this course, the student will be able to:
Stimulate thinking about
human and environment relationships using landscape and ecosystem concepts and long-term perspectives. Foster appreciation for the knowledge necessary for successful interdisciplinary research.
Evaluate and understand concepts and methods integral to environmental archeology. Engage students in the recovery, analysis, interpretations, and reporting of paleoenvironmental data.
GEOG 430. Remote Sensing
(5). Principles of acquisition, processing, analysis, and use of remotely sensed data from airborne and satellite systems (Landsat, SPOT, Ikonos, LiDAR, etc.). Applied experience using image processing software. Four hours lecture and two hours laboratory per week. GEOG 430, GEOL 430, and GEOL 530 are cross-listed courses; students may not receive credit for more than one course. Course will be offered every year (Spring). Prerequisites: GEOG 330 or GEOL 210.
Upon successful completion of this course, the student will be able to:
Recognize theory and concepts regarding data acquisition from
airborne and space-based remote sensing platforms. Demonstrate knowledge of the principles of electromagnetic radiation (EMR) and EMR interactions with Earth's atmosphere and surface. Acquire, analyze, and visually present a variety of remotely sensed imagery.
Apply image interpretation and processing techniques such as image enhancement, corrections, spectral signature analyses, ratios, filters, spatial statistics, and classifications.
Evaluate methods and analyses of remotely sensed data as they are applied to a variety of biophysical and social problems.

## GEOG 432. Heritage

Preservation (4). Students will discuss the merits of preserving heritage buildings and landscapes, and question what is deemed worth of heritage designation. Techniques will be developed for investigating a building's history and experience gained in writing proposals and policies to preserve heritage resources.
ANTH 432 and GEOG 432 are cross-listed courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: GEOG 305 or enrollment in REM Program or permission of instructor. Upon successful completion of this course, the student will be able to:
Document an individual building's history, including its owners, uses, values, remodels, and situation.
Prepare a nomination for historic designation of either a structure or a district. Identify architectural styles found in the Pacific Northwest specifically, and North America in general. Contextualize local buildings and districts in the broader cultural, social, and economic conditions that framed their development.
GEOG 440. Ecology and
Culture (4). Investigation into
interdependent environmental and human cultural systems. Traditional agroecologies and subsistence strategies; contemporary problems of resource management, social equity, political ecology, and sustainable development. GEOG 440 and ANTH 440 are cross-listed courses; students may not receive credit for both. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Identify and describe differing adaptive strategies among human populations. Demonstrate knowledge of how environmental management is mediated through culture.
Demonstrate sophisticated knowledge of one cultural ecology issue of the students choice.
Demonstrate general knowledge of contemporary issues relevant to cultural ecology (e.g. land degradation, land tenure, sustainable development).
GEOG 441. Climate Change:
Human and Biophysical
Dimensions (4). A critical analysis and examination of past, contemporary and future scenarios of climate change with a particular focus on the biophysical environment and human societies. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Critically analyze reports and research on climate science. Illustrate strengths and weaknesses of climate change research and arguments in the popular press.
Identify impacts of climate change to human society. Define and describe communities that may demonstrate characteristics of vulnerability, adaptation, or resiliency in the face of climate change.

Interpret the consequences of climate change on flora and faunal communities. Evaluate policy and strategies on adaptation, conservation, and mitigation of climate change.
GEOG 442. Alternative
Energy (5). Critical understanding of alternative energy resources from a geographical perspective, with focus on wind, biomass, solar, biofuels, geothermal, and sustainable energy systems. The course includes energy production, transition, conversion, and consumption. Field trips. Course will be offered every year (Winter). Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify and understand the spatial and temporal arrangements of social, political, environmental, and economic processes that produce different 'energy landscapes' in different locations
Explain contemporary issues regarding consumption, production, and transmission of alternative energy resources and technologies in a globalized world Critically investigate how alternative energy resources and technologies shape society, and the problems and challenges they present in different settings Outline realistic possibilities for alternative energy sources given ongoing energy challenges
Write effectively and analytically about contemporary nature-society relations, especially society's relationships to energy Collect and organize data on alternative energy resources as a basis for further analysis and evaluation
Present an original project in front of their peers
GEOG 443. Energy Policy
(5). Legal, institutional, and
economic frameworks for regional, national, and international energy decisions. Course will be offered on odd numbered years (Fall).
Upon successful completion of this course, the student will be able to:
Describe the policy process in the US and identify the variables that influence energy policy outcomes.
Identify the steps in a rationalcomprehensive policy analysis framework.
Identify a range of environmental/energy policy instruments (e.g., regulation, tradable permits, taxes, subsidies, legal instruments) and articulate their strengths and limitations as applied to environmental problems. Identify and describe the multifaceted dimensions of a variety of energy "problems" (e.g., climate change, new energy resource development, energy transportation).
Follow the steps in policy
formulation to develop an energy policy that attempts to resolve an environmental/energy problem.

## GEOG 444. Mineral

Resources (4). Foundation course for understanding the physical, social, economic, and legal dimensions of mineral resource use on a global scale. Emphasis paid to issues in the American West. Course will not have an established scheduling pattern. Prerequisite: GEOG 107 or GEOL 101 or GEOL 103 or ENST 201.
Upon successful completion of this course, the student will be able to:
Describe mineral resources, their formation, use, and global distribution.
Describe the legal issues surrounding mining in the United States.
Describe the environmental and social issues surrounding mineral extraction, processing, and transport.

Describe the different types of mines, their limitations, benefits, and consequences. Relate the above to mining in Washington State.
GEOG 445. Environmental
Law (5). This course explores the key state and federal laws governing environmental management, their formation, and the legal boundaries of these acts and the ancillary administrative rules. ENST 460 and GEOG 445 are equivalent courses; students may not receive credit for both. Course will be offered on even numbered years (Spring). Upon successful completion of this course, the student will be able to:
Identify the variety of sociopolitical drivers present and the principal methods of creating legislative change. Identify and explain the economic, social, and political factors that influence laws and administrative rules.
Analyze significant legislative articles, and identify administrative gaps using legal analysis.
Describe the adaptation of
environmental laws effectively using concepts taught in the course.

## GEOG 448. Geographic

 Approaches to
## Environmental Resource

Analysis (Put on reserve
9/16/17) (5). Examination of the techniques and methodologies used for the evaluation and sustainable management of environmental resources from a variety of perspectives. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Course will not have an established scheduling pattern. Prerequisites: GEOG 107 and GEOG 250.
Upon successful completion of this course, the student will be able to:
Outline the legal and managerial boundaries of environmental analysis, including: administrative tools, key concepts, and terminology.

Demonstrate linkages between environmental issues at local, State, National, and International contexts. Examine state and U.S. management systems for water, land, and air quality. Create an experimental design project to demonstrate a recognition of how to control for a variety of environmental variables.
Construct field tests to monitor environmental conditions for a variety of resources including vegetation and geomorphic change.
GEOG 449. Environmental
Hazard Analysis and
Management (5). Physical, human and resource geography of environmental hazards. Includes examination of the techniques and methodologies used for the assessment, and management of environmental hazards from a variety of perspectives. Course will be offered on even numbered years (Fall). Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Identify the principal causes, associated physical processes, related socio-economic problems/issues. and analytical techniques used for a wide variety of environmental hazards such as drought, flooding, shoreline erosion and ground failure, tornadoes and hurricanes, avalanches, volcanic eruptions and earthquakes, and nuclear disasters.
Describe and analyze various theoretical constructs and related methods which provide the basis for the evaluation and management or environmental hazards, and understand the benefits and limitations of each.
Critique a variety of techniques/methodologies which have been developed from a variety of perspectives for the management and evaluation of environmental hazards.

Describe environmental hazard management practices and policies related various case studies in the United States and Washington State.
Describe and analyze the
physical processes that generate a particular environmental hazard, as well as related socio economic problems/issues.
Demonstrate the use of the various environmental hazard analysis tools and techniques.

## GEOG 450. Arid

Environments (5). Physical, human, and resource geography of Earth's arid settings. Course will be offered on odd numbered years (Fall). Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Identify arid landscapes. Determine the interrelated factors and processes shaping, and the resulting physical and human features occurring, in arid environments.
Demonstrate proficiency in geographic research and writing.
Demonstrate the use of the various tools and techniques of arid environments geographer.

## GEOG 451. Mountain

Environments (5). Physical, human, and resource geography of mountain settings. Course will be offered on odd numbered years
(Winter). Prerequisite: GEOG 107.

Upon successful completion of this course, the student will be able to:
Identify mountains and mountain landscapes
Determine the interrelated factors and processes shaping, and the resulting physical and human features occurring, in mountain environments. Demonstrate proficiency in geographic research and writing.
Demonstrate the use of the various tools and techniques of mountain geography.
GEOG 452. Coastal
Environments (5). Physical,
human, and resource geography of coastal environments. Emphasis on physical processes, resource issues, and environmental management of coastal environments. Course will be offered on odd numbered years (Spring). Prerequisite: GEOG 107.

Upon successful completion of this course, the student will be able to:
Describe the interrelated factors and processes shaping, and the resulting physical features occurring, in coastal environments.
Identify the diversity and spatial distribution of Earth's coastal landforms on exams and exercise maps based on various definitions in the literature.
Describe and analyze various fundamental coastal resource issues and conflicts, including the physical processes that generate a particular coastal phenomenon, as well as related socio-economic
problems/issues.
Describe coastal resource management practices and policies related various coastal resource issue case studies in the United States and Washington State.

## GEOG 453. Riparian and

 Wetlands Analysis (5).Physical, human, and resource geography of wetland environments. Emphasis on physical processes, resource issues, and environmental evaluation and management of wetland environments. Course will be offered on even numbered years (Spring). Prerequisite: GEOG 107. Upon successful completion of this course, the student will be able to:
Identify and describe various related hydrologic, soil, and vegetation processes and factors, and the resulting wetland types and characteristics. Identify the diversity and spatial distribution of Earth's wetland types on exams and
exercise maps based on various definitions in the literature. Describe and analyze various fundamental wetland resource issues and conflicts, including the physical processes that generate a particular wetland phenomenon, as well as related socio-economic
problems/issues. Demonstrate the use of various tools and techniques used in riparian and wetland analysis. Describe riparian and wetland management practices and policies related various coastal resource issue case studies in the United States and Washington State.
GEOG 454. Forest Environments (5).
Examinations of topics related to global forest including forest ecology, disturbance regimes, biogeography, and management issues. Case studies will focus on western U.S. forest and highlight the use of geospatial techniques to study forest change. Course will be offered on even numbered years (Spring). Prerequisites: GEOG 107. Upon successful completion of this course, the students will be able to:
Describe the distribution of different forest types and explain their distribution in terms of climatic, geomorphic, and human controls. Demonstrate knowledge of what constitutes a forest environment, both ecologically and theoretically. Explain how different geospatial technologies (aerial photos, remotely sensed images, GIS maps) are used to study forest environments. Identify the dominant tree species in Pacific Northwest forests and some components of the understory vegetation; to become familiar with field methods used to study forests. Read scientific literature, glean the most important information, and be able to discuss it in a classroom setting.

Research a topic related to forests, write a scientific paper about that research, and articulately present the research to the class.

## GEOG 455. Pyrogeography

(4). An investigation of patterns of fire on Earth: past, present, and future. Topics covered include fire ecology, the history of fire, ecosystem impacts, human use of fire, fire management, and fire and climate change. Course will be offered on odd numbered years( Fall). Prerequisites: GEOG 107 and upper-division standing, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Describe the ecological and climatic conditions under which fire occurs globally and moves across landscapes.
Demonstrate knowledge of past fire regimes in different regions of the world and the techniques used to determine those histories.
Identify fires of different severity and intensity in the Pacific Northwest and investigate the ecological impacts of those fires; students will also gain experience in field methods used to study past fire events.
Read scientific literature, glean the most important information, and be able to discuss it in a classroom setting.
Explain how current fire regimes of the western United States and other fire-prone regions of the world have changed as a result of climate change and fire management policies.
Research a topic related to pyrogeography and write a scientific paper about that research.

## GEOG 456. Recreation

Geography (5). Provides a geographically-based understanding of recreational resource use and management in diverse outdoor environments. Includes study
of factors influencing supply and demand of recreational resources, recreational land use, socio-economic and ecological impacts, and introduction to resource management and analytical techniques. Course will be offered on odd numbered years (Fall). Prerequisite: GEOG 250 or permission by instructor. Upon successful completion of this course, the student will be able to:
Identify the principal factors influencing the supply and demand, distribution, and use of recreational resources, including associated ecological and socio-economic problems/issues, as well as related analytical techniques, for outdoor recreation in diverse environments. Describe and analyze various theoretical constructs and related methods which provide the basis for the evaluation and management of recreational resources, and understand the benefits and limitations of each.
Critique a variety of techniques/methodologies which have been developed from a variety of perspectives for the management and evaluation of recreational resources (this is only expected as an additional assignment for graduate students enrolled in the 400-level).
Describe recreational resource conflicts, management practices and policies related to various case studies in the United States and Washington State.
Describe and analyze the ecological and/or socioeconomic processes and factors that generate a particular recreation resource conflict or issue.
Demonstrate the use of the various recreational resource analysis tools and techniques through application to a local recreation resource problem.
GEOG 458. People, Parks, and Protected Areas (4). This course explores historical and
contemporary, scientific, and socio-ecological principles associated with parks and protected areas in the world. Concepts explored will include: biodiversity, sustainability, resilience, conservation techniques and methodologies for establishing protected area boundaries, adaptive management, and park-people conflicts. Course will be offered on even numbered years (Spring). Upon successful completion of this course, the student will be able to:
Demonstrate a working
knowledge of history,
principles, and philosophies of
park and protected area
management.
Training in real-world
conservation methodologies
and techniques by obtaining
practical experience in various
tools and strategies for protected area management Obtain knowledge on the political, socio-ecological, and economic issues and conflicts associated with conservation and protected area management.
Identify the legal and classification differences associated with various land management strategies. Use methods of evaluation of participation, management, and
evaluation of parks and protected areas. Distinguish public lands and the agencies Involved in managing landscape units based upon their use, conservation or management classification.
GEOG 460. Geography of International Trade (On reserve as of $9 / 16 / 15$ ) (5). Geographic basis of international trade with special emphasis on the Pacific Northwest. Field trips required.
Put on reserve as of 9/16/15.
Will go inactive $8 / 24 / 18$.
Course will not have an
established scheduling pattern.
Prerequisite: GEOG 304.
GEOG 461. Soils (5).
Properties, factors, processes,
and classification of Earth's soils, past and present. Four hours lecture and three hours of laboratory or field trips each week. GEOG 361 and GEOG 461 are layered courses; students may not receive credit for both. Course will be offered every year (Spring).
Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Identify the various soil processes and factors, and the resulting soil properties. Communicate in the language of the discipline.
Apply the basic concepts of soils to the various pedogenic processes.
Demonstrate the use of the various tools and techniques soils.
GEOG 473. Watershed Analysis and Planning (Put on reserve 9/2013) (4).
Examination of water resource analysis, development, management, and planning in the United States. Focus on contemporary problems, trends, and case studies. Put on reserve $9 / 2013$, not taught since Winter 2010. Will go inactive $8 / 2016$.
Prerequisite: GEOG 373.
Upon successful completion of this course, the student will be able to:
Understand alternative organizational structures for water resource management. Know the advantages and disadvantages of using watersheds as a management unit.
Know how variations in water supply and demand across the United States and over time affect local water resource management issues.
Know what federal and state (Washington) agencies maintain water resource data and how to access that data.
Know where other water resource data is available, and how to access that data.
Know what federal and state (Washington) agencies currently exercise control over
water resource use, and what that control is.
Be familiar with several important case studies illustrating the application of specific water resource management strategies. Be familiar with evolving water resource issues at the time the course is offered. Have become an expert on the history of water development and management of water resources in a watershed of their choice.

## GEOG 479. Geography of

 the West (1-12). In-depth field examination of the complex physical, human, and resource issues of one or more of the varied sub regions of western North America. May be repeated for credit under a different title by permission of department chair. Course will not have an established scheduling pattern.GEOG 482. Hydrology (5). Provides a comprehensive introduction to both the global and local hydrologic cycle. Covers constituent processes, their measurements and quantitative relationships, plus basic water quality parameters. GEOG 382 and GEOG 482 are layered courses; students may not receive credit for both. Course will be offered every year (Fall). Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Identify and describe various principal hydrologic processes and factors, and the resulting
hydrologic types and characteristics.
Communicate in the language of the discipline.
Describe and analyze the physical processes that generate hydrologic phenomenon, as well as aswell=a4I the methods and analyses used.
Demonstrate the use of various tools and techniques used in hydrologic analysis.
GEOG 483. Snow (5).
Processes and factors resulting
in snowfall, snowfall patterns over space and time, snowpack development and metamorphosis, snowfall and snowpack measurement, impacts of snowfall and snowpack on avalanches, landforms, vegetation, and runoff, and snowfall and snowpack in a warming world. GEOG 483 and GEOG 583 are layered courses; a student may not receive credit for both. Formerly GEOG 383, students may not receive credit for both. Course will be offered on even numbered years (Winter). Prerequisite: GEOG
107 or permission of instructor. Upon successful completion of this course, the student will be able to:
Recognize processes and factors resulting in snowfall.
Map spatial and temporal patterns of snowfall and snowpack.
Analyze snowpack
development and
metamorphosis.
Measure snowfall and
snowpack.
Examine the impacts of snowfall and snowpack on avalanches, landforms, vegetation, and runoff. Estimate the impacts of a warming world on snowfall and snowpack.
GEOG 485. Topics in GIS or
Remote Sensing (1-5).
Variable topics in GIS or remote sensing. Applied experience using GIS or image processing software. May be repeated up to 12 credits. Permission by instructor. Course will not have an established scheduling pattern. Prerequisite: permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate advanced knowledge of GIS and/or remote sensing software, including data management, display, and analysis. Demonstrate knowledge of graphic and text presentation /communication skills.

Recognize different ways in which specific GIS and/or remote sensing techniques can be applied in a variety of fields.
Recall and integrate knowledge learned through lecture, labs, reading, and software skills. Provide evidence of geospatial data
interpretation/management skills that may be used in a variety of other classes.
GEOG 486. Geomorphology
(5). Descriptive and interpretive examination of Earth's landforms, and the processes and factors that shape these features over space and time. Four lectures and three hours laboratory or field trips each week. GEOG 386, GEOG 486, and GEOL 386 are cross-listed courses; students may not receive credit for more than one. By permission only. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Identify landforms resulting from different geomorphic processes and factors. Communicate in the language of the discipline.
Apply the basic concepts of geomorphology to the various geomorphic processes. Demonstrate the use of the various tools and techniques of geomorphology.
GEOG 487. Biogeography
(5). Investigates the functional relationships between biophysical processes and their spatial and temporal patterns at various scales. Introduces approaches to land systems analysis focusing upon ecosystems. GEOG 387 and GEOG 487 are layered courses, students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: GEOG 107.

Upon successful completion of this course, the student will be able to:

Identify and describe various principal biogeographical processes and systems. Communicate in the language of the discipline.
Describe and analyze the physical processes that generate biogeographical patterns of life on Earth. Research a topic related to biogeography, write a scientific paper about that research, and articulately present the research to the class Facilitate an in-class discussion of a scholarly article that pertains to your research topic. Synthesize data gathered during lab exercises.
GEOG 488. Weather and Climate (5). Elements, factors and processes affecting Earth's climates, present, past, and future. Four hours lecture and two hours laboratory/field per week. Course fee required. GEOG 388 and GEOG 488 are equivalent courses, students may not receive credit for both. Course will be offered every year (Winter). Prerequisite: GEOG 107.
Upon successful completion of this course, the student will be able to:
Analyze, describe, and diagram the basics of the Earth atmosphere and major atmospheric processes including energy, pressure, wind, precipitation, air masses, fronts, and storms.
Communicate in the language of the discipline. Recognize the relationships and linkages between the parts of the Earth's energy budget and explain the factors controlling temperature and precipitation patterns on Earth and to describe the distribution of climates of the World. Describe the impacts of weather on human activity and impacts of humans on climate. Understand the tools and technologies used to produce weather forecasts and to be able to locate and interpret weather maps and satellite images available on the www.

Describe and analyze past, present, and future trends in natural and anthropogenic climate change.
Provide peer-reviewed sources to support interpretations made in the final term paper.
Articulately present research to the class.
GEOG 489. Geography
Capstone (2). Assessment of past coursework in Geography and related fields and the General Education program and exploration of future opportunities in Geography and related fields. Course will be offered every year (Fall and Spring). Prerequisites: senior standing and admission to a geography major.
Upon successful completion of this course, the student will be able to:

Synthesize information, ideas, concepts and methodologies from the student's General Education program and major in Geography or related fields to provide an original analysis of a problem or place.
Reflect upon General Education program and coursework in Geography and/or related fields. Demonstrate the capacity to summarize in writing the student's credentials and achievements, especially as they pertain to Geography and/or related fields, in a resume and cover letter. Demonstrate the capacity to articulate the student's credentials and achievements, especially as they pertain to Geography and/or related fields, in an interview setting. Apply key ideas and methods from Geography and/or related fields to answer short questions.
GEOG 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer
supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
GEOG 491. Workshop (1-6).
GEOG 492. Geography Teaching Experience (1-3).
Experience in classroom, laboratory, and/or field teaching. May be repeated for credit with permission of department chair.
GEOG 493. Geography Field
Experience (1-12). Individual or group off-campus experience in the field study of geographical phenomena. May be taken more than once by permission of department chair under a different title.

## GEOG 494. Applied GIS

Project (2-6). GIS projects in anthropology, biology, geography, geology, and resource management. ANTH 494, GEOL 494 and GEOG 494 are cross-listed courses; students may not receive credit for more than one.

## GEOG 496. Individual Study

 (1-6).GEOG 497. Honors (1-12).
Prerequisite: admission to department honors program.
GEOG 498. Special Topics (1-6).
GEOG 499. Seminar (1-5).
GEOL 101. Introduction to
Geology (4). An introduction to geology emphasizing the origin and nature of the common rocks, plate tectonic theory, earthquake and volcanoes, and geologic time. Course will be offered every year (Fall, Winter, Spring, Summer). NS-Fund Disc Phys and Biological Sciences. Coor prerequisite: GEOL 101LAB.
Upon successful completion of this course, the student will be able to:
Gain a basic understanding of Earth composition and physical processes on a broad range of scales.
Understand how geologists apply scientific discovery in their many roles as professionals.

Understand the steps in basic scientific investigation and be able to collect and analyze data.
Understand how scientific investigation has developed over the past several centuries and how it has been applied to questions related to the nature of Earth through history. This will give students an appreciation for the "evolutionary" nature of science inquiry.
Distinguish data from interpretation. Understand the steps in basic scientific investigation and be able to collect and analyze data.
Gain a basic understanding of Earth composition and physical processes on a broad range of scales.
GEOL 102. Geology of National Parks (On reserve as of $9 / 16 / 15$ ) (4).
Fundamentals of geology applied to selected national parks in North America. Four lectures per week. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Co- or prerequisite: GEOL 101LAB. Upon successful completion of this course, the student will be able to:
Recognize and interpret connections between geologic provinces of North America. Understand the plate tectonics behind the evolution of these western American landscapes. Apply of fundamentals of geology to familiar landscapes of the National Park System. Describe and recognize the difference between igneous, sedimentary, and metamorphic rocks. Will understand the origin and plate tectonic setting for each of these rocks. Critically assess a series of data sets to solve a given geologic problem.
Describe the process for determining absolute age dates for igneous rocks. Manipulate and interpret the scientific method - and the difference between observation and interpretation.

GEOL 103. Geology of Washington (4).
Fundamentals of geology applied to the state of Washington. Topics include Washington's volcanic, earthquake, tectonic, and glacial activity. Four lectures per week. Course will be offered every year (Fall, Winter). NS-Patterns and Connections Natural World. Corequisite: GEOL 101LAB. Upon successful completion of this course, the student will be able to:

Demonstrate a basic understanding of Earth composition and physical processes on a broad range of scales, with particular application to the state of Washington.
Describe how geologists generate testable hypotheses to explain and predict natural hazards in Washington State, with a particular emphasis on earthquakes, volcanoes, tsunami and landslides. Describe how geologic investigation has developed over the past several centuries and analyze how it has been applied to questions related to the nature of Earth through history, particularly with respect to earthquake and volcanic natural hazards and glacial flooding events in the state of Washington.

## GEOL 107. Earth's

 Changing Surface (4). The role of natural geologic processes in shaping the earth's surface; includes hydrologic cycle, rivers and flooding, landslides, coastal processes, and climate cycles. Four hour lecture per week plus required field trips. Course will be offered every year (Fall, Winter, Spring). General Education: NS-Patterns and Connections Natural World. Upon successful completion of this course, the student will be able to:Demonstrate an understanding of prediction, measurement and mitigation for a variety of
natural hazards including floods, landslides, and tsunamis.
Describe the role of plate tectonics in controlling Earth surface processes. Describe changes to the Earth's surface through all of geologic time, including recent time. Describe ways in which the climate and hydrologic cycles shape the Earth's surface. Distinguish data from interpretation.
Explain the concept of recurrence interval for geologic hazards and evaluate risks. Describe the causes and impacts of natural climate variability.
GEOL 108. Earth and
Energy Resources (4).
Exploration of the earth's mineral and energy resources, how they are formed, harnessed, and the environmental impacts of their extraction and use. Course will be offered every year (Fall, Winter, Spring, Summer). NSApplications Natural Science. Upon successful completion of this course, the student will be able to:
Explain the ways that humans affect their natural environment (e.g. add greenhouse gases to the atmosphere, regulate rivers, use resources, and pollute air, water and soil systems). Analyze topics related to the Earth and earth resources, using the scientific method. Describe processes and conditions that give rise to earth resources such as mineral deposits and exploitable energy.
Distinguish data from interpretation.
Use a geologic understanding of a given setting to determine where an oil or mineral deposit might be located.
Analyze topics related to the Earth and earth resources, using scientific method. Present different views of complex environmental issues (e.g. carbon emissions, off-
shore drilling, nuclear energy, etc.).
GEOL 188. Geology and Environmental Geology Field
Trips (1). Afternoon and weekend field trips to introduce students to the geology and environment of the Pacific Northwest as well as the breadth of study options in the geological sciences. May be repeated up to 3 credits. Grade will either be S or U . Course will be offered every year (Fall, Spring).
Upon successful completion of this course, the student will be able to:
Experience a topical field trip in order to learn more about the geological and environmental sciences.
Interact with faculty members in the department of geological sciences.

## GEOL 200. Earth's Evolution and Global

 Change (5). Evolution of Earth, plate tectonics, life, and climate over the last 4.5 billion years. Three lectures, four hours laboratory per week. Course will be offered every year (Winter). Prerequisites: (either GEOL 101 OR GEOL103 OR GEOL 107 OR GEOL
108) and GEOL101LAB, OR

SCED 102.
Upon successful completion of this course, the student will be able to:
Apply geologic knowledge to interpret geologic maps and cross-sections.
Determine and calculate relative and absolute ages of rocks and fossils.
Evaluate paleomagnetic and other geologic data to reconstruct past plate motions. Describe the geologic history of planet Earth and the development of the study of geology.
GEOL 210. Introduction to Geologic Field Methods (4). Introduction to geologic field investigation, emphasizing geologic mapping. Class comprises two weeks in the field during summer or as arranged by the instructor;
credits are carried during the subsequent academic year quarter. Extra fees required. Course will be offered every year (Fall). Prerequisites: (GEOL 101, or GEOL 103, or GEOL 107, or GEOL 108) and GEOL101LAB, or SCED 102, or instructor permission. GEOL 200 recommended. Upon successful completion of this course, the student will be able to:
Collect and record data using common geologic field methods and tools. Synthesize geologic data collected in the field through producing geologic maps and cross-sections.
Use multiple lines of evidence
from their use field data and geologic maps as well as existing literature to develop a reasonable geologic history for their field area.
GEOL 296. Individual Study (1-6).
GEOL 298. Special Topics (1-6).
GEOL 299. Seminar (1-5).
May be repeated if subject is different.
GEOL 302. Oceans and
Atmosphere (4). Introduction to Earth's climate and the hydrologic cycle through study of the ocean-atmosphere system. Chemical and physical changes will be studied over time scales ranging from millions of years to days. Will include a field trip. Course will be offered every year (Fall, Winter, Spring, Summer). NSPatterns and Connections Natural World. Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Describe some of the major environmental issues associated with the atmospheres and oceans. Describe the physical structure, composition and circulation of the oceans, and how actual/predicted changes in the system may affect Earth's climate and Biosphere.

Identify the main reservoirs in the Earth's water and energy cycles and describe the main conduits for transfer of mass and energy between reservoirs. Describe the physical structure, composition and circulation of the oceans, and how
actual/predicted changes in the system may affect Earth's climate and Biosphere. Critique, with the support of scientific evidence, different viewpoints regarding complex environmental issues.
Discuss how
anthropogenically-induced changes, including global warming, could affect the hydrosphere, atmosphere, and biosphere.
GEOL 303. Water: Science and Society (5). An
investigation of the importance of water to the existence of life on Earth. This course will provide a basic scientific background on water and examine the relationships between water and human activities. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Describe how scientific research and data is used to inform water policy Effectively describe the twoway relationship between water resources and human society: how water availability and quality affect economic opportunities and human wellbeing, and how human activity affects water resources Knowledgeably explain the distribution and dynamics of water at the surface and in the subsurface of Earth and how the distribution and characteristics are expected to change over the next 50 years Identify appropriate data collection practices for a variety of hydrologic data, synthesize and analyze data from multiple sources, and interpret the results.
Develop strategies and best practices to decrease water
stress and increase water quality
Thoughtfully evaluate information and policy statements regarding the current and future predicted state of water resources and communicate their evaluations in terms that can be understood by the general public

## GEOL 305. Quantitative

 Reasoning for Geoscientists(4). An introduction to quantitative methods commonly used for observation, analysis, and interpretation of geologic features and processes. Prerequisites: (either GEOL 101 OR GEOL 102, OR GEOL 103) and GEOL101LAB, and MATH 100C or above. Upon successful completion of this course, the student will be able to:
Recognize and apply a range of mathematical concepts to quantify fundamental Earth properties and processes. Solve quantitative problems associated with geological questions.
Recognize and apply concepts and quantification of uncertainty and errors in geologic data.

## GEOL 306. Communicating

 Geoscience (4). Exploration of effective communication skills in the geosciences. Includes readings from the primary and popular literature, writing, making figures, and oral presentation. Emphasis on peer review and revisionPrerequisites: (GEOL 101 or GEOL 103) and
GEOL101LAB and ENG 102.
Upon successful completion of this course, the student will be able to:
Critically read and evaluate journal articles from the primary literature. Cite sources appropriately and effectively in written and oral presentations.
Give a professional oral presentation to an audience of their peers.
Write a professional review paper of a topic relevant to the
discipline, including incorporating comments from peer reviews and feedback. Choose or develop appropriate graphs and figures
Provide constructive feedback to their peers on their written and oral communication.
GEOL 320. Rocks and
Minerals (5). Identification, classification, and evolution of common igneous and metamorphic rocks. Includes recognition and interpretation of rocks in typical field exposures. Three hours lecture and three hours laboratory per week plus required field trips. Prerequisites: (GEOL 101 or GEOL 103) and
GEOL101LAB and CHEM
111 or CHEM 181.
Upon successful completion of this course, the student will be able to:
Recognize and describe common igneous and metamorphic rocks and minerals.
Write complete and accurate hand sample descriptions.
Explain and analyze physiochemical principles in the context of minerals. Calculate solutions to quantitative equations about igneous and metamorphic processes
Demonstrate improvement in scientific writing and reading comprehension skills.
GEOL 346. Mineralogy (5).
Physical, chemical, and crystallographic properties, and occurrence of minerals Examination and description of hand specimens and crystal models. Theory and practice in optical mineralogy and X-ray diffraction. Four lectures and three hours laboratory per week. Prerequisites: GEOL 305, and GEOL 320, and MATH 154. Co-requisite: MATH 154 or instructor permission.
Upon successful completion of this course, the student will be able to:
Identify and document observations of common and important minerals based on
hand specimen, petrographic microscope, and X-ray diffraction methods. Apply mineral composition and structure to interpret mineral formation conditions. Synthesize observations to present a scientific interpretation of the formation and hi tory of a rock or mineral sample in written and oral formal.

## GEOL 351. Geology of the

 Pacific Northwest (3). Fundamentals of geology applied to the Pacific Northwest. Case studies in lecture will build toward extended field experiences. Two lectures per week. Field trips required. Prerequisites:(GEOL 101 or GEOL 103), and GEOL 101LAB, and GEOL 200.
Upon successful completion of this course, the student will be able to:
Identify common rocks and rock-forming minerals in various Pacific Northwest field settings.
Critically read, synthesize, and discuss current primary literature articles pertaining to ongoing research in the geology of the Pacific Northwest.
Present a relevant scientific interpretation of key field data from select field sites in the Pacific Northwest. Demonstrate breadth and depth of knowledge about the geologic history of the Pacific Northwest.
GEOL 360. Structural
Geology (5). Introduction to the basic principles of rock deformation with an emphasis on the geometry, styles, and mechanics of faulting and folding and the stereographic projection and analysis of geologic structures. Three lectures and four hours laboratory per week. Field trips required. Prerequisites: GEOL 200 and GEOL 305 and GEOL 320 and MATH 154.
Upon successful completion of this course, the student will be able to:

Describe and utilize the fundamental principles and tools of structural geology. Identify geologic structures in the field and in geologic maps and cross-sections and interpret their tectonic significance. Measure, record, and analyze relevant structural data in the field and in the lab. Describe and quantify dynamic properties of Earth's crust. Interpret and synthesize data from the field, the literature, geologic maps, cross-sections, geodesy, and seismology to determine the tectonic and structural setting of an area.
GEOL 370. Sedimentology and Stratigraphy (5). Origin of sedimentary rocks, physical processes and stratigraphic principles. Identification of sedimentary rocks. Recognition of depositional environments represented in the geologic record. Field trip required. Prerequisite: GEOL 200, and GEOL 305, and MATH 153. Co-requisite: MATH 153.
Upon successful completion of this course, the student will be able to:
Describe, classify and name common sedimentary rocks, fossils and trace fossils. Describe the processes and deposits of common terrestrial and marine sedimentary environments; describe the primary factors and processes that control deposition of clastic and chemical sedimentary rocks; describe affiliations of common sedimentary rock-types and sedimentary structures. Be able to draw, read, and interpret stratigraphic sections. Explain and apply the basic principles of stratigraphic correlation, including applying Walther's Law to standard stratigraphic sections. Practice skills that professional geologists use: Create hypotheses, identify viable field plans for testing these hypotheses, successfully execute a field plan, evaluate
resulting data, and report these results to peers.
GEOL 371. Paleobiology (4).
Using fossils in the geologic record to explore evolution and extinction, ancient ecology and environments, and the geographical distribution of plants and animals. BIOL 371 and GEOL 371 are cross-listed courses; students may not receive credit for both. Course will be offered on on odd numbered years (Winter). Prerequisite: BIOL 181 or GEOL 101 or GEOL 103 or GEOL 107 or GEOL 108 or SCED 102.
Upon successful completion of this course, the student will be able to:
Identify, measure and describe common fossils and their morphology from examples. Identify and differentiate methods of preservation of organisms in the rock record and distinguish biases of preservation.
Demonstrate how evolutionary processes, adaptation, and extinction relate to the history of life, diversity, and changing environments on Earth over geologic time.
Identify fossil content and rock type to interpret depositional environments and ecosystems. Interpret and construct paleogeographic maps and use them to hypothesize and assess the distribution of fossil and modern organisms.
Relate paleobiological data to (1) major events and trends in the evolutionary history of plants and animals and (2) major global events and trends (tectonic, paleogeographic, paleoclimate).
Evaluate the adequacy of the fossil record for tackling a particular question, and assess the quality of hypotheses based on (limited) fossil data.
Demonstrate an understanding of the relationship between processes and the timescales over which they operate.
Accurately apply and
differentiate concepts of
correlation and causality when interpreting data.
Use mathematical concepts and tools to analyze, evaluate, and present numerical data.
Practice effective oral, written, and graphic communication techniques.
GEOL 377. Regional Natural
History (2). Classroom study of the natural history of a selected region as preparation for a one- or two-week field trip. Emphasis will be on developing background skills to undertake a field exploration over the quarter (winter, spring, summer) break. Subtitles will identify the selected geographical region (e.g. Baja California Natural History). GEOL 377 and BIOL 377 are cross-listed courses. May be repeated for credit under a different subtitle (region). Prerequisite: permission of instructor.
GEOL 380. Natural Hazards
(5). Environmental concerns of earth processes and natural hazards including earthquakes, volcanic activity, flooding, landslides, etc. Three hours lecture plus one three-hour lab per week. Prerequisites: (either GEOL 101 or GEOL 102, or GEOL 103) and
GEOL101LAB, or instructor permission.
Upon successful completion of this course, the student will be able to:
Describe the earth process that gives rise to natural hazards such as earthquakes and volcanic activities.
Evaluate hazards associated with natural hazards by viewing maps and scientific data.
Present in written form a thorough evaluation of a specific natural hazard of their choice.
GEOL 382. Earth Resources and Pollution (4). Human impact on the Earth through use of its resources, including pollution and remediation strategies. Two 2-hour lecture/lab sessions per week. Prerequisites: GEOL 101 or

GEOL 102 or GEOL 108 and GEOL101LAB or permission of instructor.
Upon successful completion of this course, the student will be able to:
Explain the factors that control the availability of mineral and fossil fuel resources. Describe some of the key strategies for water management, including remediation of polluted water. Given a pollution problem associated with earth resource use, students will be able to propose possible remediation strategies and discuss their advantages and disadvantages.
GEOL 384. Ocean, Atmosphere and Climate Interactions (4). The characteristics and circulation of Earth's ocean and atmosphere are examined in the context of investigating the Earth's energy balance and climate. Both natural and anthropogenic causes of climate variability are explored. Prerequisites: (GEOL 101 or GEOL 103) and GEOL 101LAB, and GEOL 305.

Upon successful completion of this course, the student will be able to:
Describe the structure and composition of the Earth's atmosphere and ocean as relevant for understanding the Earth's energy balance. Describe how ocean and atmosphere circulation redistributes energy at the Earth's surface. Examine and predict how a perturbation to oceanatmosphere interactions affects regional climate. Differentiate natural from anthropogenic causes of climate change.
GEOL 386. Geomorphology (5). Descriptive and interpretive examination of the Earth's landforms, and the processes and factors that shape these features over space and time.. Four lectures and three hours laboratory or field trips each week. GEOG 386,

GEOG 486, and GEOL 386
are cross-listed courses;
students may not receive credit for both. Prerequisites: (GEOL 101 or GEOL 102 or GEOL
103 and GEOL 101LAB) or GEOG 107.
Upon successful completion of this course, the student will be able to:
Collect, analyze and interpret their own field observations and measurements of geomorphic and forms. Identify landforms from glacial, fluvial, eolian, and tectonic processes and describe the processes by which they formed.
Design and carry out an investigation of a geomorphic process in which they propose and test a measureable hypothesis.
GEOL 388. Field Trips (1-3).
Intensive study of geological phenomena on field trips up to two weeks in length. Three days field work for each credit. Extra fees required. Course may be repeated for areas of significantly different geologic content. Grade will either be S or U. Prerequisite: permission of instructor.

## GEOL 392. Lab Experience

 Teaching Physical Geology(1). May be repeated up to 2 credits. Grade will either be S or U. Prerequisites: (either GEOL 101 OR GEOL 102, OR GEOL 103) and GEOL101LAB.
Upon successful completion of this course, the student will be able to:
Collect meaningful field data on field trips, and critically assess a series of field data sets to solve given geologic problems.
Describe the formation and structure of various topographic and geologic maps; and various rock and mineral samples.
Manipulate and interpret classroom content as it applies to various local field sites.
GEOL 395. Junior Research
(1-6). May be repeated for up
to 12 credits. Prerequisite: by permission only.
Upon successful completion of this course, the student will be able to:
Improve critical thinking skills through design and implementation of an independent research project. Improve scientific writing skills.
Engage in oral presentations of independent research.
GEOL 396. Individual Study (1-6).
GEOL 397. Honors (1-12).
Prerequisite: admission to department honors program.
GEOL 398. Special Topics (1-6).
GEOL 399. Seminar (1-5).
May be repeated if subject is different.
GEOL 404. GIS Analysis (5).
This course development of Geographic Information Systems (GIS) use; emphasis is placed on analysis of geospatial datasets. Lecture and practical applications. GEOG 404 and GEOL 404 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate ability to use GIS software to create and model solutions to problems. Demonstrate ability to define, analyze, and solve a particular geographic problem.
Ability to apply geospatial analysis to knowledge from the disciplines of Geography, Anthropology, Biology, Geology, and/or Computer Science.
Demonstrate knowledge of computer-based skills using modern GIS software. Recall and integrate knowledge gained through lecture, labs, reading, and software skills.

## GEOL 415. Earthquake

Geology and Neotectonics (5). Geomorphology, stratigraphy, and structural geology applied to the study of active faults and folds in a variety of tectonic settings. Relation of seismicity and geodetic measurements to
geologic structure and active tectonic processes, including case studies of selected earthquakes. Three hours lecture and four hours laboratory per week. GEOL 415 and GEOL 515 are layered courses; students may not receive credit for both. Prerequisites: (either GEOL 101 OR GEOL 103) and GEOL101LAB and GEOL 386 and MATH 154.
Upon successful completion of this course, the student will be able to:
Determine evidence for past earthquakes using surface geomorphology.
Interpret and critique geologic maps and air photos that show evidence for active faulting. Describe the concepts of earthquake magnitude and earthquake cycle.
Use paleoseismic data to determine structural styles of past earthquakes. Describe the geological criteria for evaluating seismicity. Plot focal mechanism solutions on a stereonet.

## GEOL 417. Advanced GIS

(4). Advanced GIS principles, techniques, analysis, and application. Lecture and practical hands-on experience. GEOG 417 and GEOL 417 are cross-listed courses; students may not receive credit for both. Prerequisites: GEOG 404 or GEOL 404.
Upon successful completion of this course, the student will be able to:
Justify, apply, employ, and interpret input data to solve a geographic problem. Recognize different ways in which GIS can be applied in a variety of fields.
Demonstrate and apply knowledge of graphic and text presentation and communication skills. Demonstrate knowledge of computer-based skills using modern GIS software. Recall and integrate knowledge learned through lecture, labs, reading, and software skills.

GEOL 423. The Cryosphere
(5). Components of the cryosphere (ice sheets, mountain glaciers, ice shelves, global snow cover, sea ice extent, and permafrost/frozen ground) will be examined, including anticipated changes in the cryosphere due to changing climate. GEOL 423 and GEOL 523 are layered courses; students may not receive credit for both. Course will be offered on even numbered years (Winter). Prerequisites: (either GEOL 101 or GEOL 102 or GEOL 103) and GEOL 101LAB, and GEOL 200, and GEOL 210, and CHEM 181 and CHEM 182.

Upon successful completion of this course, the student will be able to:
Differentiate between the formation and structure of components of the cryosphere.
Examine techniques used to monitor variations in various components of the cryosphere. Evaluate which components of the cryosphere are most vulnerable to a warming climate, and the timescales over which the cryosphere component is vulnerable to change (weeks - months centuries). Synthesize research from the peer reviewed scientific literature on a topic related to the cryosphere. Evaluate how projected increases in temperature will affect a component of the cryosphere, and predict the societal and economic impacts of this change.
GEOL 425. Environmental Geochemistry (5). Global geochemical cycles, influences of rocks and soils on water chemistry, behavior of isotopes and trace elements. Includes class project studying local environmental geochemistry topic. Three lectures plus one three-hour lab per week. GEOL 425 and GEOL 525 are layered courses; students may not receive credit for both.

Prerequisites: CHEM 181, and CHEM 181LAB, and
CHEM 182, and
CHEM 182LAB and MATH 153.

Upon successful completion of this course, the student will be able to:
Describe geochemical cycles
of water and carbon in terms of their principle reservoirs, residence times in those reservoirs and fluxes between major reservoirs. They can differentiate between longtimescale processes (such as silicate weathering) an1 shorttimescale processes (such as anthropogenic increase in atmospheric CO 2 ). Have a basic knowledge of acids and bases, their properties and behavior. Students understand the relative strengths of acids and bases and related equilibria. Comprehend and can describe in their own words the laws of thermodynamics. They understand how the equilibrium constant of a reaction can be derived from expressions for chemical potential and Gibbs free energy.
Understand the relationship between minerals and natural watel in terms of solubility equilibria, and know how factors such as temperature and pH will effect mineral solubility.
Have basic laboratory skills
necessary to carry out a supervised geochemical study (e.g. can perform Gram titration of waters in field, can collect water samples using clean methods, can measure water content, textures and LOI of soils, etc.)
Have basic knowledge of water and soil chemistry, controls on
pH , cation and anion concentrations.
Understand the role of the oceans in geochemical cycles and as buffers for our environment. They know the controls on ocean chemistry. Given an environmental geochemical problem, students
are aware of geochemical techniques (isotopes, trace elements, etc.) which might be used to address that problem. Be aware of current topics of research in environmental geochemistry and can read and critically discuss a research article.
GEOL 430. Remote Sensing (5). Principles of acquisition, analysis, and use of remotely sensed data (LANDSAT, SPOT, Ikonos, etc.). Applied experience using image processing software. Three hours lecture and three hours laboratory per week. GEOL 430, GEOG 430, and GEOL 530 are cross-listed courses; students may not receive credit for more than one.
Prerequisites: GEOG 410 or GEOL 210.
Upon successful completion of this course, the student will be able to:
Have knowledge of what is remote sensing.
Have knowledge of history and
Trends in remote sensing.
Have knowledge of energy interactions with the atmosphere and earth surface features.
Have knowledge of sensor systems.
Have knowledge of image processing and analysis, including: Image rectification and enhancement, contrast manipulation, supervised and unsupervised classification, principal component analysis, and vegetation indices. Have knowledge of real-world application examples. Have knowledge of radar imagery.
Have knowledge of hyperspectral imagery. Have computer-based skills using modem image processing software.
Have the ability to combine knowledge learned through
lecture with the computerbased software skills.

## GEOL 432. Field Geodetic

Techniques (3). Training in field geodetic techniques, including scientific application
of two or more precision surveying instruments: geodetic GPS, differential GPS, and electronic distance meter. Three hours a week and field project, or one-week field course. GEOL 432 and GEOL 532 are layered courses; students may not receive credit for both. Prerequisites: (either
GEOL 101 OR GEOL 102, OR
GEOL 103) and
GEOL101LAB, and GEOL 200 and GEOL 210.
Upon successful completion of this course, the student will be able to:
Set up and operate a geodeticgrade GPS receiver.
Download recorded data from a geodetic- grade GPS receiver.
Be familiar with the UNIX operating system.
Plot GPS vectors.
Run canned GPS data
processing algorithms.
Model GPS data with Mogi
and Dike models.
GEOL 434. Petroleum
Geology (5). Petroleum geology delivers a comprehensive introduction to the application of geology in the oil and gas industry, including the origin and occurrence of petroleum, application of geology in exploration and production, and the evolution of the industry in the context of global demand. GEOL 434 and GEOL 534 are layered courses; students may not receive credit for both. Prerequisite: GEOL 210 or permission of instructor. Upon successful completion of this course, the student will be able to:
Explain the geological basis behind the origin and occurrence of oil and gas. Apply geologic principles in the exploration and development of oil and gas resources.
Formulate and present exploration and development prospects based on geologic and economic data in a simulated competitive (business) environment.

Summarize of the history, present state, and possible future of petroleum exploitation and use in the context of overall global energy demand. Explain basic technical challenges, physical hazards and environmental impact associated with drilling, completing and producing oil and gas wells.

## GEOL 441. Climate

Variability and Climate
Change (5). Examine past, present, and future changes in climate, and the factors that contribute to climate change over various timescales. GEOL 441 and GEOL 541 are equivalent courses; students may not receive credit for both. Prerequisite: GEOL 200.
Upon successful completion of this course, the student will be able to:
Demonstrate a basic understanding of the physics of the climate system, including the planetary energy balance, and oceanic and atmospheric circulation.
Identify the causes of natural climate variability, including volcanic and solar activity, and the Earth's orbit around the Sun.
Give examples of techniques used to reconstruct past climate.
Provide examples of how human activities are modifying the Earth's climate system (e.g., addition of CO 2 to the atmosphere, land use change etc.).
GEOL 445. Hydrogeology
(5). Study of the occurrence and movement of ground water using geology, hydrology, and geochemistry, with an emphasis on practical problems in water management. Three hours lecture and three hours laboratory per week. GEOL 445 and GEOL 545 are layered courses; students may not receive credit for both. Prerequisites: (either GEOL
101 OR GEOL 102, OR GEOL 103) and GEOL101LAB, and MATH 154.

Upon successful completion of this course, the student will be able to:
Readily convert between unit systems and can evaluate a problem using the units of measurement as a guide for determining the units for the answer.
Measure porosity, specific yield, specific retention, and hydraulic conductivity in the lab. Students can explain Darcy's Law. Explain how spatial variations in energy cause groundwater to flow. They can qualitatively describe what flow might be expected for a given geologic setting.
Use mass balance calculations
as a tool for approaching a wide variety of geologic problems involving water.
GEOL 452. Geophysics (Put on reserve 9/2013) (4). Basic elasticity theory, gravity, and geoid analysis. Terrestrial heat flow and seismology. Three hours lecture per week plus four hours of scientific computing lab. No prior Unix experience required. Put on reserve 9/2013, not taught since Spring 2010. Will go inactive $8 / 2016$. Prerequisite: MATH 154.
Upon successful completion of this course, the student will be able to:
Calculate strains and stresses from different physical scenarios and explain the theoretical framework in which stresses and strains are analyzed, modeled, and interpreted
Derive and solve the acoustic wave equation, and describe behavior of waves at interfaces. Use ray theory to predict travel times and identify phases, can calculate travel times when supplied with earth models, and can calculate energy carried by different types of waves through different transmission media. Use travel time data to infer the internal structure of the earth.

Use existing software on existing Geology Unix computers to analyze and model seismic waveform data. Use tools to model seismic data to infer structure at depth. Use the Unix computing environment to run seismic analysis codes for data interpretation and modeling.
GEOL 453. Seismology (5).
Elasticity theory, the wave equation, ray theory, diffraction, waveform modeling, travel time inversion. Data analysis. Three hours lecture per week plus four hours of scientific computing lab. Offered alternate years. GEOL 453 and
GEOL 553 are equivalent courses; students may not receive credit for both. Prerequisite: MATH 173. Upon successful completion of this course, the student will be able to:
Identify seismic phases. Demonstrate the use of seismic analysis software for data interpretation and modeling. Explain the origin and travel time of seismic phases. Illustrate the internal seismic structure of the Earth. Calculate epicenters, magnitudes and focal mechanisms using seismic data.
GEOL 456. Geodynamics (5).
Study of plate tectonics and mountain building processes that shape Earth. Lab includes introduction to Matlab software for analysis and visualization. Required field trip. GEOL 456 and GEOL 556 are layered courses; students may not receive credit for both. Prerequisite: (either GEOL 101
OR GEOL 102, OR GEOL 103) and GEOL101LAB. Corequisite: MATH 172.
Upon successful completion of this course, the student will be able to:
Use MATLAB software to manipulate and solve mathematical descriptions of the earth's dynamics. Compare, contrast and combine different lines of
evidence about how the Earth works.
Describe the principles behind a variety of geophysical techniques, and explain how these techniques are applied to the solid Earth.
GEOL 474. Quaternary
Geology (4). Study of
geological processes affecting Earth's most recent history. Course emphasizes marine and continental quarternary environmental change, glacial epochs, paleoclimatic methods, and dating techniques. GEOL
474 and GEOL 574 are layered courses; students may not receive credit for both. Prerequisites: either GEOG 386 or GEOL 386 or GEOL 370.

Upon successful completion of this course, the student will be able to:
Explain the proposed causes of Quaternary glacial and interglacial climates and discuss how and why the glacial records differ in the northern and southern hemispheres.
Describe commonly-used Quaternary dating techniques and be able to explain their applications to different types of geological processes and features.
Synthesize and compare the data from different paleoenvironmental proxy indicators for the same geographic region.
Discuss the relevance of Quaternary geology to the scientific analysis of modern climate change. Read and critique primary scientific literature on Quaternary research topics. Summarize and assess the connections between Quaternary geology and other areas of geological research.
GEOL 475. Petrography and Petrogenesis (5). Petrogenetic, hand specimen, and thin section study of igneous, metamorphic, or sedimentary rocks. Three hours lecture and four hours laboratory or field work per week plus required
field trips. GEOL 475 and GEOL 575 are layered courses; students may not receive credit for both. Offered in alternate years. Prerequisite: GEOL 346. Upon successful completion of this course, the student will be able to:
Describe geochemical cycles of water and carbon in terms of their principle reservoirs, residence times in those reservoirs and fluxes between major reservoirs.
Describe in their own words the laws of thermodynamics. Carry out a supervised geochemical study. Describe basic concepts in water and soil chemistry, including controls on pH , acidbase reactions, and cation and anion concentrations. Given an environmental geochemical problem, students can describe the geochemical techniques (isotopes, trace elements, etc.) which might be used to address that problem. Read and critically discuss a research article on a current topic in environmental geochemistry.

## GEOL 476. Advanced

 Sedimentology (4). Sediments, sedimentary rocks, and advanced lab and field techniques for students interested in conducting research or working in sedimentology-related fields. Required field trips. GEOL 476 and GEOL 576 are layered courses; students may not receive credit for both. Prerequisite: GEOL 370. Upon successful completion of this course, the student will be able to:Apply standard sedimentary and stratigraphic techniques in field and lab settings. Apply standard sedimentary and stratigraphic techniques to rock cores.
Identify sedimentary rock features/characteristics. Analyze sedimentary rock features/characteristics to determine depositional environments and settings.

Evaluate sedimentologic data to determine unanswered questions or future directions of sedimentological research.
GEOL 477. Tsunami Geology and Geophysics (2). Course will cover the current science of paleotsunami research, an overview of modern survey observations, the basic physics of tsunami generation and propagation, and introduce students to tsunami modeling methodologies. GEOL 477 and GEOL 577 are cross-listed; students may not receive credit for both. Prerequisite: GEOL 370.

Upon successful completion of this course, the student will be able to:
Describe how tsunamis and paleotsunami are studied and discuss specific examples. Discuss and synthesize the current state of paleotsunami research in a region of interest. Describe how tsunami models operate and compute a simulation using standard methodologies.
Demonstrate an understanding of the basic physics of tsunami generation and propagation. Evaluate how new scientific ideas evolve from being controversial to accepted or rejected.
GEOL 478. Volcanology (5).
Study of volcanoes and associated deposits, styles of eruption, physical and chemical controls on eruption mechanisms, and volcanic hazards and hazard mitigation. Three hours lecture and four hours laboratory per week plus required field trips. GEOL 478 and GEOL 578 are layered courses; students may not receive credit for both. Offered in alternate years.
Upon successful completion of this course, the student will be able to:
Be familiar with Earth structure, geothermal gradient, mechanisms of heat transfer, mechanisms which generate magma, properties of magmas such as density and viscosity.

Understand the correlation between plate tectonic setting and composition of volcano, type of volcano, and mechanisms of eruption. Identify the range of volcano types on Earth ( e.g., shield, stratocone ), the different types of eruptions ( e.g., Hawaiian, Plinian) and the particular deposits that results from these eruptions (e.g., lava flow, ignimbrite).
Comprehend and can quantify the controls (e.g., volatile content, temperature, composition, presence/absence of water) on eruption type and magnitude.
Understand, and in some cases uses, modem methods of volcano hazard assessment. Have knowledge of mitigation techniques and employ these in mock situations.
Gain experience working on a research project. In doing so,
they gain experience in recognizing the critical components of identifying various types of volcanoes/deposits and in critically reading literature.

## GEOL 483. Isotope

Geochemistry (5). Covers
principles of isotope
geochemistry and applications
to studies of geological
processes such as hydrologic
cycling, volcanic petrogenesis, and climate change. Three hours lecture per week plus required laboratory work and field trips. GEOL 483 and GEOL 583 are layered course; students may not receive credit for both. Offered in alternate
years. Prerequisites: CHEM
182, CHEM 182LAB, and MATH 154.
Upon successful completion of this course, the student will be able to:
Explain the difference between stable and radiogenic isotopes and can describe the mechanisms for isotopic fractionation in these two types of isotope systems.
Explain how isotopes of oxygen and hydrogen can be used to study water sources,
flow paths and fluxes in the hydrological cycle.
Describe, both intuitively and mathematically, how isotopes are used to date rocks. Look up the range of typical isotopic compositions in various rock types and how processes such as mixing, assimilation or fractional crystallization might affect these isotopic compositions. Describe several environmental applications of isotope geochemistry such as their use in studying animal migration, climate records, or contaminant sources.
Have experience in at least one aspect of isotopic analysis (sample preparation, elemental extraction, mass spectrometry, etc.) and can describe some of the sources of error in different types of isotopic measurement. Participate in group research projects and can formulate and test hypotheses.

## GEOL 484. Geochronology

(5). Principles, analytical methods, and interpretation of several of the most widely applied geochronological methods. Computer-based data analysis of problems in igneous and metamorphic petrology, structural geology, sedimentary geology, geomorphology, paleoseismology, and planetary science. GEOL 484 and GEOL 584 are layered courses; students may not receive credit for both. Prerequisites: MATH
172 and GEOL 346 or permission of the instructor. Upon successful completion of this course, the student will be able to:
Manipulate and interpret geochronology data. Choose the most appropriate geochronology tools to solve a given geologic problem. Correctly calculate and interpret uncertainties associated with geochronology measurements.
GEOL 487. End-of-major Review Seminar (1). Students must be familiar with the language of geology and possess certain basic geologic
skills. Coordinates student participation in program assessment activities and provides a structured avenue for student input into program goals. Grade will either be S or U. Prerequisite: senior status and intention to graduate during the current year.
GEOL 489. Geologic Field Methods (6-12). Emphasis is placed on observation and recording of lithologic and structural features, measurement of stratigraphic and structural sections, applications of various survey methods, and plotting geologic data on topographic and aerial photographs in the field. The class will be offered during summer break, or as arranged by the instructor. Credits will be carried in concurrent or immediately adjacent academic year quarter. Extra fees required. Permission of instructor. Course will be offered every year (Summer). Prerequisites: GEOL 210 and GEOL 346 and GEOL 360 and GEOL 370.
Upon successful completion of this course, the student will be able to:
Develop the ability to locate oneself and geologic features on a map base, including topographic maps, aerial photographs, digital orthophotoquads, Google Earth Images, and/or LiDAR maps. Describe sedimentary, metamorphic, and igneous rocks from outcrop scale characteristics to hand lens scale, and combine similar rocks into mappable rock units. Describe and determine the nature of contacts-sedimentary, intrusive, or tectonic-and how well the contacts can be located on the map base using appropriate geologic symbols. Measure attitudes on sedimentary, intrusive, and tectonic structures (e.g. bedding, lineations, columnar joints, foliations, fault planes, etc.) and contacts, and interpret their geologic significance.

Interpret the relative age relations among the different rock units using observations and data collected in \#'s 2-4. Discover the limitations in quantity and quality of geologic field data. Create a geologic map over a range of scales (e.g. 1:6,000 to $1: 24,000$ over areas ranging from 0.3 km 2 to 4.3 km 2 ) by plotting data collected in \#'s 25 on a base map, using appropriate geologic symbols at the appropriate location. Visualize geology in 3D and construct accurate geologic cross-sections and interpretations based on field observations and data, and geologic maps.
Develop sound interpretations based on uncertain, nonunique, and limited field data and observations, and with limited time for analysis. Apply knowledge from core geology disciplines to integrate and interpret diverse data sets into a coherent geologic history.
Reflect upon, integrate, and apply knowledge and skills gleaned General Education experience.

## GEOL 490. Cooperative

Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
GEOL 491. Workshop (1-6).
GEOL 493. Field Methods in Environmental Geology (4). In this two-week field course, students will apply field methods in environmental geology to a local or regional environmental geology research question. Permission by instructor. Course will be offered on on odd numbered years (Spring). Prerequisites: GEOL 386.

Upon successful completion of this course, the student will be able to:
Collect environmental field data, both quantitative and qualitative and record it in such a way that others know exactly what they have done and can reproduce their methods. Work together in a professional manner to tackle a large environmental geology research project.
Reflect upon, integrate, and apply knowledge and skills gleaned from their undergraduate experience, including General Education. Integrate knowledge and skills gained across their undergraduate experience.

## GEOL 494. Applied GIS

Project (2-6). GIS projects in anthropology, biology, geography, geology, and resource management. ANTH 494, GEOL 494 and GEOG
494 are cross-listed courses; students may not receive credit for more than one.
GEOL 495. Senior Research
(1-6). By permission only. May be repeated up to 12 credits.
GEOL 496. Individual Study (1-6).
GEOL 497. Honors (1-12).
Prerequisite: admission to department honors program.
GEOL 498. Special Topics (1-6).
GEOL 499. Seminar (1-5).
GEOL 101LAB.
Introductory Geology
Laboratory (1). Application of
map study to geological processes and land forms, identification of rocks and minerals, and local field trips. Two hours laboratory per week. NS-Fund Disc Phys and Biological Sciences (L) or NSPatterns and Connections Natural World (L).
Upon successful completion of this course, the student will be able to:
Use maps and cross sections to describe and understand geological relationships. Make field observations and interpret these observations in terms of geological processes.

Make inquiry-driven laboratory and field observations.
GEOL 377LAB. Regional
Natural History (3). One- or two-week field trip to explore biological and physical patterns and processes in selected regions of North America. Emphasis will be on recording field observations, keeping a field journal, field study techniques, and performing investigations chosen and developed by student participants. Subtitles will identify the region studied. BIOL 377LAB and GEOL377LAB are cross-listed courses. Special fees required. May be repeated for credit under a different subtitle.
GEOL 492A. Experience Teaching Upper-level
Geology (2). Assisting with instruction in upper-level geology major lab or field courses. May be repeated up to four times for a total of 8 credits. Grade will either be S or U.
Upon successful completion of this course, the student will be able to:
Advise and assist other undergraduate students in classroom and laboratory activities for a course that they have previously taken and excelled in.
Display professionalism as teaching assistants.
GEOL 492B. Laboratory Experience Teaching Earth Science (2). Course designed for future Earth science teachers in secondary schools. Assist teaching one laboratory section of GEOL 101LAB and discuss laboratory-teaching methods. Grade will either be S or U .
GERM 151. First-year
German (5). Conversational approach with intensive oralaural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.
GERM 152. First-year
German (5). Conversational approach with intensive oralaural drill. Firm foundation in
the basic structural principles of the language. Courses must be taken in sequence.
Prerequisite: GERM 151.
Upon successful completion of this course, the student will be able to:
Develop a basic language competence in German through the usage and practice of the four language skills: listening, speaking, reading and writing. Verbally express, write, and understand commands, personal opinions, and tastes, comparing qualities and characteristics, talking about events in the past, buying and purchasing gifts, and to describe one's skills and training.
GERM 153. First-year
German (5). Conversational approach with intensive oralaural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. Prerequisite: GERM 152. Upon successful completion of this course, the student will be able to:
Develop a basic language competence in German through the usage and practice of the four language skills: listening, speaking, reading and writing. Express living accommodations, negotiate with a landlord, state relationships and possessions, order a meal, notice cultural differences, talk about personal grooming, tell stories, give opinions, talk about past and current events in Germany, and express resolutions, feelings and emotions.
GERM 251. Second-year
German (5). Graduated readings in modern German prose with discussion conducted in German. Thorough review of German grammar. Courses must be taken in sequence.
GERM 252. Second-year
German (5). Graduated readings in modern German prose with discussion conducted in German. Thorough review of German
grammar. Courses must be taken in sequence. Prerequisite: GERM 251. Upon successful completion of this course, the student will be able to:
Learn to read with a basic understanding of modern German short stories and prose as found in newspapers, letters and magazines.
Increas their active and passive vocabularies.
Develop an ability to communicate thoughts on topics of general interest, both orally and in writing. Improve their ability to understand conversational German.
Strengthen their knowledge of German grammar and have increased their ability to use standard High German in everyday situations. Learn some aspects of contemporary life, history, politics, and culture of the German speaking countries.
GERM 253. Second-year German (5). Graduated readings in modern German prose with discussion conducted in German. Thorough review of German grammar. Courses must be taken in sequence.
Prerequisite: GERM 252. Upon successful completion of this course, the student will be able to:
Learn to read with a basic understanding modern German short stories and prose as found in newspapers, letters and magazines.
Increase their active and passive vocabularies. Develop an ability to communicate thoughts on topics of general interest, both orally and in writing. Improve their ability to understand conversational German.
Strengthen their knowledge of German grammar and have increased their ability to use standard High German in everyday situations.
Develop each level progressive skills in the four language
skills of reading, speaking, listening, and writing. Learn some aspects of contemporary life, history, politics and culture of the German-speaking countries. GERM 298. Special Topics (1-6).
GERM 299. Seminar (1-5).
May be repeated if subject is different.
GERM 301. Introduction to
German Literature (3).
Selected pieces of German literature characteristic of the
Middle Ages to the present.
Prerequisite: GERM 253.
GERM 341. Intermediate
Composition and Grammar
(Put on reserve 9/16/15.) (3).
Should be taken in sequence
with GERM 441. Put on
reserve $9 / 16 / 15$. Will go
inactive $8 / 24 / 18$.
Prerequisite: GERM 253.
GERM 343. Intermediate
Conversation (Put on reserve
$9 / 16 / 15$.) (2). Put on reserve
$9 / 16 / 15$. Will go inactive
8/24/18. Prerequisite: GERM
253.

GERM 344. Intermediate
Conversation (Put on reserve
$9 / 16 / 15$.) (2). Put on reserve
$9 / 16 / 15$. Will go inactive
8/24/18. Prerequisite: GERM
343.

GERM 350. Advanced
Conversation (Put on reserve
9/16/17) (4). The course will
broaden students'
communicative strategies and develop their speaking and listening skills through exposure to a variety of media. Films, visual art, and music will provide the basis for general class participation and small group discussion. (Put on
reserve 9/16/17. Will go
inactive $8 / 24 / 2020$.)
Prerequisite: GERM 253.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of
different media types
Demonstrate advanced
listening skills
Demonstrate advanced
speaking skills

GERM 352. Advanced
Reading and Expression (4).
Texts culled from a variety of sources and time periods will
form the basis of this course, allowing students a broad exposure to German written expression in order to broaden and develop their reading skills and strategies. Prerequisite: GERM 253.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of different text types.
Demonstrate advanced reading skills.
Present an L2 text to a group of L2 speakers (the class)
GERM 354. Advanced
Grammar and Composition
(Put on reserve 9/16/17) (4).
The course focuses on the development of writing skills through the analysis and practice of grammar, vocabulary, and rhetorical devices. (Put on reserve
$9 / 16 / 17$. Will go inactive 8/24/2020.) Prerequisite: GERM 253.
Upon successful completion of this course, the student will be able to:
Link the grammatical structure
of a text to its message.
Demonstrate increased
vocabulary acquisition and usage.
Create original writings using advanced grammatical structures and abstract, higherlevel vocabulary.
GERM 384. Defying Nazism: German and French Resistance during WWII (5).
Course focuses on the Resistance movements in Germany and France as people from both countries struggled to come to terms with Hitler and Nazism. FR 384 and GERM 384 are cross-listed courses; a student may not receive credit for both. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:

Identify and describe the ways in which beliefs and values affect interpretations of experiences and events. Interpret the events experienced in France and Germany from WWI to WWII and compare them to similarly significant historical events. Identify the causes of the German and French Resistance movements.
Examine and explain the effects of the German and French Resistance movements on the government and citizens of each country.
Recognize the interrelatedness of human concerns that transcend geographical and cultural boundaries. Identify and interpret the significance of salient cultural and historical details of resistance movements.
GERM 385. German Phonetics (Put on reserve $9 / 16 / 15$. .) (3). Designed to show how German is pronounced, and how to attain accuracy, which approximates native-like pronunciation as much as possible. Provides an opportunity to improve pronunciation. Put on reserve $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: GERM 341.

GERM 396. Individual Study
(1-6). May be repeated if subject is different.
GERM 397. Honors (1-12).
Prerequisite: admission to department honors program.
GERM 398. Special Topics (1-6).
GERM 399. Seminar (1-5).
May be repeated if subject is different.

## GERM 464. German Cinema

(On reserve as of 9/16/15) (4).
An examination of the history, aesthetic achievements, major directors and themes, and cultural explorations of German cinema. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:

Demonstrate a comprehension of the major styles, trends, themes and directors of 20th century German film. Show knowledge of particular representative films from several key directors. Exhibit an understanding of how such films represent a window into German culture. Demonstrate an understanding of the ways German cinema both draws upon and challenges the traditions and aesthetic patterns of Hollywood film.
GERM 491. Workshop (1-6). GERM 496. Individual Study (1-6).
GERM 497. Honors (1-12).
Prerequisite: admission to department honors program.
GERM 498. Special Topics (1-6).
GERM 499. Seminar (1-5).
May be repeated if subject is different.
GWT 202. A Social History of Beer, Wine, and Distilled Spirits (4). This course looks at alcohol
production/consumption from early societies to its presentday industry. Students debate health issues of alcohol, environmental issues, and quality of life issues associated with the wine, beer, and spirits. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 202; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Describe the use of fermentation as a method of food preservation through history.
Identify the history and diffusion of the alcohol distillation process. Identify the cultural aspects of alcoholic beverage consumption in present and past societies. Identify the health benefits associated with wine and alcohol consumption. Identify the health hazards associated with wine and alcohol consumption.

Compare the relationship of traditional beer and wine production to variations of carbon usage in modern society. Explain the changes being initiated to make the wine and beer industry "greener."
Demonstrate how the technology of fermentation changed; how alcoholic beverage production was dependent on different fruit and grain species that flourished in various environments.
GWT 298. Special Topics (16). May be repeated if subject is different.
GWT 299. Seminar (1-5).
May be repeated if subject is different.
GWT 302. Fundamentals of Viticulture and Enology (4). Fundamentals of viticulture and enology, techniques and practices, wine styles, and grape varietals. Health issues associated with wine, basics of wine, and food pairing. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 302; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge on the fundamentals of the vine and
grape structure and physiology Demonstrate knowledge of viticultural practices and techniques
Demonstrate knowledge regarding the winemaking processes for still, sparkling and fortified wines Correctly pair wine with a variety of foods and be able to identify health issues associated with wine
GWT 303. Major Wine Regions of the World (4). Major wine regions of the world. Identification of major grape varietals and wine styles, label regulations, and legal issues. Viniculture and winemaking regulations, climate, soils, and other factors affecting each region. Course
will be offered every year.
Course will not have an established scheduling pattern. Formerly GWS 303; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify climate and soil conditions for the major vineyard areas of the world Identify major grape varieties of the world and typical wine styles for the major wine producing regions Understanding of the viticulture and winemaking regulations of the major wine producing regions Understanding of the quality levels, labeling regulations and legal systems of the major wine producing regions
GWT 304. Wine Marketing and Branding (4). Regulations and legalities, marketing, branding, public relations, consumer behavior, and business planning in the wine industry. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 304; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the 3-tier system, shipping, regulations, legalities and alcohol distribution and tax structures in the United States Develop a branding and marketing plan for the wine industry and understand the legal issues of marketing alcohol
Develop a business plan demonstrating understanding of business structures and components
Demonstrate an understanding
of wine public relations, publicity and working with the media
Demonstrate an understanding of consumer segmentation, behavior, direct to consumer theories

Demonstrate an understanding of wine tourism and it's direct and indirect benefits
GWT 396. Individual Study
(1-6). May be repeated if subject is different.
GWT 397. Honors (1-12).
Prerequisite: admission to department honors program.
GWT 398. Special Topics (1-
6). May be repeated if subject is different.
GWT 399. Seminar (1-5).
May be repeated if subject is different.
GWT 402. Issues in Viticulture and Enology (4). This course covers advanced techniques in viticulture and enology practices, product quality control and quality assurance, and worker protection. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 402; students may not receive credit for both. Prerequisite: GWT 302 or permission of instructor. Upon successful completion of this course, the student will be able to:
Review traditional problems that take place in the vineyard and in the .winery that affect wine poorly and reduce production potential Demonstrate understanding of costs and risks involved in enology and winemaking Demonstrate understanding of costs and risks involved in viticulture
Demonstrate advanced knowledge in the area of enology practices
Demonstrate advanced knowledge in viticultural issues, cultural and biological practices
GWT 403. The Global Wine Industry (4). Traditional and emerging wine regions: globalization, classification and legal systems, trade structures, international agreements, consumption habits, patterns, and trends. By permission. Course will be offered every year. Course will not have an established
scheduling pattern. Formerly GWS 403; students may not receive credit for both. Prerequisite: GWT 303. Upon successful completion of this course, the student will be able to:
Identify grape varieties and wine styles from smaller regions, lesser known regions and emerging production areas of the world
Identify global market trends, issues in emerging markets, consumption patterns, and cross cultural issues in the wine industry
Demonstrate an advanced understanding of trade and legal structures, tariffs, barriers to entry and international agreements and distribution Evaluate and assess legalities and success of advertising and promotional strategies for winemaking regions Identify the intricacies of vineyard and winery classifications, quality levels assigned and negociant structures
GWT 404. The International Wine Trade (5). Accounting and finance, global supply chain, distribution, retail, intellectual property rights, legal issues, wine auctions and investments, journalism and ratings. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 404; students may not receive credit for both. Prerequisites: ACCT 301 and GWT 304.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of accounting, finance, budgeting and projections, market forecasting and market share in the wine industry Demonstrate an understanding of the global supply chain in the wine industry from supplier, producer, importer, exporter, distributor, wholesaler and retailer Demonstrate an understanding of the needs of off-premise and on premise retailers

Demonstrate an understanding of the issues of financial valuation including assets, liabilities, intellectual property rights, and issues regarding exit strategies
Assess the commercial ramifications of wine journalism, ratings and competitions
Demonstrate an understanding of wine auctions and wine investment funds and opportunities, and fraudulent wine identification
GWT 405. Beverage and Food Pairing for the Sommelier (4). Overview of major beverages and service standards related to the world of fine wines in a dining environment. Fundamentals of food pairing with major wine varietals, wine styles, and other industry beverages of the world. Must be 21 years of age or older prior to the start of class. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 405; students may not receive credit for both. Prerequisite: GWT 303.

Upon successful completion of this course, the student will be able to:
Pair major wine varietals with a variety of food items while operating in a wine or dining environment.
Pair major beverages including wine, spirits, \& beer found in fine wine and dining establishments with a variety of food items.
Demonstrate knowledge of the origin and production methods of beverages associated with the world of fine wines.
Taste to analyze the flavor profiles, textures, and techniques of food \& beverage production relative to their interactions on the palate. Perform proper service techniques of beverages other than wine; such as sake, spirits, coffee, tea, and cigars.
GWT 406. Professional Wine Analysis (3). Evaluation and assessment of global wines.

Component format for organoleptic properties including appearance, aroma and palate. Must be 21 years of age or older prior to the start of class. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 406; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Apply professional organoleptic analysis for wine assessment in the commercial market
Differentiate between wines from different grape varieties, viticulture, winemaking and storage techniques Have an understanding of the basic sensory analysis, chemical compounds, flavors and wine interactions

## GWT 407. Beverage

 Management and Service for the Sommelier (4). Basics of the wine and beverage cellar, menu pricing and creation of a wine and beverage list, sales techniques with a practical beverage industry approach, and service standards pertaining to the beverage industry and sommeliers. Must be 21 years of age or older prior to the start of class. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 407; students may not receive credit for both. Prerequisite: GWT 303. Upon successful completion of this course, the student will be able to:Demonstrate techniques to properly serve a variety of wines and other beverages in a wine or dining establishment. Create and price a beverage menu relative to a wine or dining establishment. Effectively sell a variety of beverages and different styles to a range of potential new accounts or clients. Communicate to a client proficiency to choose appropriate wines and other
beverages for a cellar and maintain proper cellar management such as; temperature, hygiene, and inventory control.
GWT 408. Advanced Sensory
Analysis (4). Assessment of viticulture and winemaking techniques in wine, identification of provenance, fraud, age and potential for investment. Must be 21 years of age or older prior to the start of class. Course will be offered every year. Course will not have an established scheduling pattern. Formerly GWS 408; students may not receive credit for both. Prerequisites: GWT 402 and GWT 406. Upon successful completion of this course, the student will be able to:
Assess advanced viticulture and winemaking techniques via appearance, aroma and palate Develop skills to identify the provenance of a wine and fraudulent products
Develop the skills to evaluate wine for ageing potential and investment purposes

## GWT 409. Applied

 Professional Tasting Analysis (Put on Reserve 9/16/16.) (4).This course will combine lecture and tasting for wines, beers, spirits, and liqueurs for students who are interested in a career path as sommelier to work in the dining industry. Students will learn proper tasting techniques for each beverage along with appropriate aging and service for a dining establishment. Must be 21 years of age or older prior to the start of class. Formerly GWS 409; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Prerequisite: GWT 303. Upon successful completion of this course, the student will be able to:

Identify specific regions and origins for wine, beer, spirits and other beverages
Demonstrate tasting techniques to differentiate between beverage and production styles Identify how each beverage should be aged and properly served in a dining establishment
GWT 410. Wine Faults (3).
Chemical, physical, and biological faults and flaws found in wine from the vineyard, winery, distribution, retail, and consumer. Product recalls and legalities of faulty wines. By permission. Formerly GWS 410; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: GWT 402 and GWT 406.
Upon successful completion of this course, the student will be able to:
Identify the compounds that create chemical, biological and physical faults found in wine, their origins and remedies Develop skills to identify specific wine faults in a wine Demonstrate the commercial ramifications of faulty wines including legalities and product recalls
GWT 412. Advanced Wine Regions (3). Study of lesser known vineyard areas around the world including unusual grape varietals, regulations, quality designations, and wines made for specific markets. Formerly GWS 412; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: GWT 303. Upon successful completion of this course, the student will be able to:
Identify climate and soil conditions for the "advanced" vineyard areas of the world. Identify for the lesser known regions of the world, the dominant and less common grape varieties.

Identify wine produced by these grapes.
Demonstrate an understanding of the viticulture and winemaking regulations and laws for each advanced country and its regions.
Identify quality levels and labeling regulations of advanced wine regions.
GWT 452. Regional Wine
Tourism (4). Wine tourism is an American growth industry. Unlike in Europe, support for wine tourism in the USA is regional. This course offers an academic and hands-on approach to regional wine tourism that will assist RT and GWT graduates. GWT 452 and RTE 452 are cross-listed courses, students may not receive credit for both. Formerly GWS 452; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: nine credits of upper division GWT or RTE courses or permission of instructor.
Upon successful completion of this course, the student will be able to:
Describe the history and structure of wine appellations around the world with specific attention focused on the American Viticultural Area (AVA).
Determine the advantages and disadvantages of national and state support for wine tourism in a wine region.
Demonstrate knowledge of a variety of wine tourism organizations, such as annual regional events and wine trails, as well as itemize assets, income and expenditures for such organizations. Demonstrate various regional criteria that are necessary for successfully launching a wine trail campaign, an AVA or a wine tourism event. Determine the best research instrument for analyzing the efficacy of various AVA or wine trail events.

GWT 454. Wine Tourism
Applications (4). Applying what they have learned in GWT/RTE 452, students conduct research on sectors of the wine tourism industry in Washington State such as wine trails, wine clubs, regional wine associations and wine festivals. The student conducts hands-on research that may be useful to these sectors. GWT 454 and RTE 454 are crosslisted courses, students may not receive credit for both. Formerly GWS 454; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: GWT 452 or RTE 452.

Upon successful completion of this course, the student will be able to:
Participate in, and observe, wine tourism by volunteering in a tasting room, or at a wine festival or at a wine event. Generate a hypothesis or problem as to how wine tourism functions on that level. Test the hypothesis using a research strategy.
Write a prospectus for research on a regional wine tourism problem that includes a review, of similar research a description of the methods that will be used for data collection. Demonstrate that they can conduct research as laid out in the prospectus, generate interpretations from the data and write up the study in an academically acceptable form.
GWT 490. Cooperative Education (1-12). An individualized contracted field experience with business, industry or government agencies in the wine industry. A learning agreement is created to identify and plan the directed and supervised study. Must be 21 years of age or older prior to the start of class. May be repeated for credit. Grade will either be S or U . Course will be offered every year. Course will not have an established scheduling pattern.

Prerequisite: admission to the global wine trade major.
GWT 491. Workshop (1-6).
GWT 492. Field Experience
(3). The student will spend 1 to

3 weeks in a major wine area
OUTSIDE the Pacific Northwest USA researching the appellation(s), the wineries, their viticulture, wine production, wine styles and marketing approaches. This course requires a literature review, methodical tastings, interviews with the area's winemakers and marketing staff. Prerequisite: permission of the instructor.
Upon successful completion of this course, the student will be able to:
Acquire first hand familiarity with a renowned international wine area outside of the Pacific Northwest United States. Understand the elements that contribute to the terroir of the wine area being studied. Demonstrate an understanding of wine production in a defined major wine area and how that production differs from wine production in Washington State.
Demonstrate an understanding of the wine market and government controls for the region of study.
Identify wine styles and tastes associated with the area of study.

## GWT 496. Individual Study

(1-6). May be repeated if subject is different.
GWT 497. Honors (1-12).
Prerequisite: admission to department honors program.
GWT 498. Special Topics (16).

GWT 499. Seminar (1-6).
HED 101. Essentials for
Healthy Living (4). Essentials
for Healthy Living is a survey
course designed to give the student the practical and theoretical knowledge necessary to apply principles of overall wellness in the pursuit of a healthier lifestyle. Course
will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of

Human Adaptations and Behavior.
Upon successful completion of this course, the student will be able to:
Identify and define principles of wellness that underlie healthy behavior choices.
Critically analyze patterns of human behavior within natural and man-made environments.
Articulate ways to
foster understanding of human health by
exploring positive responses to knowledge learned.
Explore components of wellness as a lifestyle for disease and accident prevention.
Understand self-motivation, how it can be accessed in establishing a healthy lifestyle. Ask incisive and insightful questions to solve real-world and personal health problems, conflicts, and issues.
Explore, research the effects of addiction on brain function, personal health, family, vocational, and social relationships
Increase thoughtfulness and responsibility as stewards of the earth.
Recognize and analyze the process of disease transmission and prevention, including STIs such as HIV/AIDS.
HED 205. Drugs and Sport
(3). Survey of the potential hazards of recreational, ergogenic, and restorative drugs commonly used by athletes. Course will be offered every year (Fall, Winter, and Spring).
Upon successful completion of this course, the student will be able to:
Describe the principles of the wellness model as it relates to substance use \& abuse. Describe the historical background of drug use and motives in the collegiate and professional sports arenas. Identify the key elements of addiction from the disease model perspective.

Identify the necessary criteria to determine substances that are banned by the NCAA utilizing the Resource Exchange Center (REC). Describe the NCAA banned substances protocol with regard to substance use and abuse.
Describe the CWU Athletic Department substance use and personal conduct policy. Describe the negative implications that anabolic steroids have on the human body and sport eligibility at the collegiate and professional levels.
Demonstrate the importance and benefit of engaging in alternative activities other than drugs as a means to generate natural highs.
Identify drug prevention and treatment strategies related to drugs and sports.

## HED 210. Drugs and Health

(3). Uses and abuses of drugs. Special emphasis will be on psycho-physiological effects upon human health and responsible drug use.
HED 296. Individual Study (1-6).
HED 298. Special Topics (1-
6).

HED 299. Seminar (1-5).
HED 318. The Politics of Food and Health (3).
Exploration of the politics of food from farm to table, and the implications for human and environmental health. HED 318 and NUTR 318 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Analyze changes in U.S. diet over time.
Question food systems, choices, and discourse relative to personal and population health.
Identify influential factors in the food environment relative to power.
Evaluate regulatory influence on food production, manufacturing, and distribution and the potential effects on
human and environmental health.
Frame a food system issue, from a population health standpoint, for discussion.
HED 323. Infectious Disease (Put on reserve by department 9/16/15) (3). This course introduces students to the various principles related to the identification, treatment, and prevention of various infectious diseases. Additionally, the physical, social, psychological, and monetary implications of these infectious diseases in society are addressed. Put on reserve by department $9 / 16 / 15$, will go inactive $8 / 24 / 18$.
Upon successful completion of this course, the student will be able to:
Describe the disease process
for infectious illnesses such as pneumonia, tuberculosis, meningitis, measles, and gonorrhea.
Identify risk factors related to the development of infectious diseases.
Identify primary, secondary, and tertiary levels of care for infectious diseases.
Communicate and advocate for preventative health education in regard to infectious disease.
Provide information and act as a health education resource.
HED 340. Technological
Applications in Health
Education (On reserve as of
9/16/15) (3). Assist students in utilizing computerized sources of information, methods of instruction, understand technology applied to training, and a better use of computers for health information resources. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.

## HED 387. Principles of

 Fitness and Stress Management (3). The theory and practice of health enhancement through fitness and stress management. Upon successful completion of this course, the student will be able to:Define stress and the stress response
Trace the physiological stress response through the body Compare and contrast various stress management techniques Develop a personal plan to manage stress
Understand the importance of planning in developing a learning experience for others Utilize a variety of sources in implementing an educational experience
Appreciate the variety of evaluation strategies available for educational experiences Recognize the value of qualified professionals to use as resources for information
HED 396. Individual Study (1-6). May be repeated if subject is different.
HED 397. Honors (1-12).
Prerequisite: admission to department honors program.
HED 398. Special Topics (16).

HED 399. Seminar (1-5). May be repeated if subject is different.
HED 411. Public Health Emergency Preparedness and Management (3). This course introduces students to the principles of emergency public health preparedness and management. Students will learn about natural and unnatural
emergencies/disasters and the processes of preparedness, response, and mitigation in local, state, federal and global settings.
Upon successful completion of this course, the student will be able to:
Recognize and describe various natural and unnatural disasters and emergencies in public health
Identify common strategies in disaster preparedness and response in public health. Demonstrate an ability to distinguish between various types of emergencies/disasters. Design a disaster preparedness and mitigation plan.

Evaluate the effectiveness of various scenarios of response and management.
HED 422. Methods for Health Promotion (4). Prerequisites: HED 101 and PUBH 230, and current WSP/FBI fingerprint clearance.

## HED 442. Field Work and

Experience in Health
Education (1-15). Observation
and participation in health
programs, and/or HED 101.
May be repeated to a
maximum of 15 credits.
HED 446. Health Education
Curriculum for Elementary
Teachers (3). Examination of available curricula and teaching materials in health education for elementary school teachers. Students must develop an elementary health education curriculum.
Prerequisite: current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Explain the importance of health education in the elementary school classroom Effectively apply health education curricula materials to the appropriate benchmarks from the Commission on Student Learning health and Fitness goals (EALRS and GLEs)
Define comprehensive health and health education Describe how to locate different health curricula and resources, and effectively review health texts and resources for the elementary classroom
Explain and apply principles and conditions for effective health learning to take place and demonstrate skill in applying those principles Develop and utilize the necessary skills needed to evaluate and modify personal states of health and express the importance of being a good health role model to youth

Work as a team to connect with a school in the community
HED 491. Workshop (1-6).
HED 492. Practicum (4).
Practical experience and application of responsibilities and competencies necessary for practicing health education. Prerequisites: HED 345 or 472.
HED 496. Individual Study
(1-6).
HED 497. Honors (1-12).
Prerequisite: admission to department honors program.
HED 498. Special Topics (16).

HED 499. Seminar (1-5). HIST 101. World History to
1500 (5). Origins and
development of the major world civilizations to the 15th century. A comparative study of their political, social, and economic institutions, and their religious and intellectual backgrounds. Course will be offered every year (Fall, Winter, Spring). SBPerspectives on World Cultures (W). Upon successful completion of this course, the student will be able to:
Identify key events, persons, movements, and concepts in the world from pre-history to 1500
Develop ability to identify, analyze, and evaluate the relationship between past and present with respect to global, national, and local issues from prehistory to 1500
Demonstrate an understanding of how diversity, inequality or privilege interact with social, economic, cultural, technological, and political powers in world history to 1500
Demonstrate an understanding of how world history to 1500 informs strategic decision making, global citizenship and economic productivity Effectively address significant historical issues and articulate impacts on global issues by clearly and coherently presenting ideas in writing and speaking

Apply historical knowledge and critical thinking skills in analyzing sources concerning world history to 1500 and address complex global problems
HIST 102. World History:
1500-1815 (5). A comparative
survey of political, social, economic, and cultural developments in world history from 1500-1815. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on World Cultures (W). Upon successful completion of this course, the student will be able to: Read and respond in oral and written form to primary sources from different parts of the world, understanding the importance of author and audience to the production and reception of those sources. Identify and synthesize patterns in world history that are reflected in our current world, making connections between past and present. Recognize and analyze the significance of power dynamics and experiences to interpretations of human experience.
Identify and challenge preconceived notions in the context of alternative perspectives and experiences. Analyze the ways in which historically distinct cultural contexts shaped individuals' lives, beliefs, and experiences, and how these are different from our own.
HIST 103. World History
Since 1815 (5). A comparative survey of political, social, economic, and cultural developments in world history since 1815. Course will be offered every year (Fall, Winter, Spring, Summer). SB-
Perspectives on World Cultures (W).
Upon successful completion of this course, the student will be able to:
Develop ability to identify, analyze and evaluate the relationship between past and present with respect to global,
national and local issues from 1815 to present
Recognize and evaluate global diversity and inequality in the context of social, economic and political power across time and space
Demonstrate an understanding of how world history informs strategic decision making, global citizenship and economic productivity Develop an ability to articulate the global dimensions of significant issues in the past and present, whether social, cultural, economic, historic, or political
Apply critical thinking skills to historical sources to analyze global issues from multiple perspectives and conceptual models, including cultural, economic, social and political Assemble, evaluate and analyze relevant historical evidence in order to craft wellsupported arguments orally and in writing

## HIST 143. United States

History to 1865 (5). Survey of U.S. history from before contact to Civil War. Themes include pre-Columbian societies; colonization; epidemics and environmental change; slavery; the American Revolution and Constitution; the market revolution; Manifest Destiny; and the Civil War. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on Cultures and Experiences of U.S. (W). Upon successful completion of this course, the student will be able to:
Identify and evaluate the historical origins and interplay of class, gender, and race in the U.S. to 1865

Identify and evaluate the historical origins and impact of nationalism and expansionism in the United States to 1865 Demonstrate understanding of how the American past (to 1865) has shaped the present Demonstrate understanding of key elements of the U.S.
Constitution, as well as the
evolution and impact of key American reform movements, court decisions, legislation, and wars prior to 1866
Demonstrate understanding of how and why Americans resolved--or failed to resolve-common problems prior to 1866.

## HIST 144. United States

 History Since 1865 (5). U.S. history from Reconstruction to the present. Themes include Imperialism, Progressivism, World War I, GreatDepression, World War II, the Civil Rights and Women's Movements, the Vietnam War, recent U.S. foreign policy and political movements. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Perspectives on Cultures and Experiences of U.S. (W).

Upon successful completion of this course, the student will be able to:
Identify and evaluate the origins and interplay of class, gender, and race in the United States since 1865 Identify and evaluate the origins and impact of nationalism and/or imperialism in the United States since 1865 Demonstrate understanding of how the American past (since the Civil War) has shaped the present
Demonstrate understanding of key elements of the U.S. Constitution, as well as the evolution and impact of key American reform movements, court decisions, legislation, and wars since 1865
Demonstrate understanding of how and why Americans have resolved--or failed to resolve-common problems since 1865.
HIST 298. Special Topics (16).

HIST 299. Seminar (1-5).
May be repeated if subject is different.
HIST 301. Pacific Northwest
History (5). Exploration and settlement; subsequent political, economic, and social history with particular emphasis on Washington.

Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Identify and explain the origins and consequences of the key events and transformations that occurred in the Pacific Northwest from the earliest recorded history to the present. Read and respond in oral and written form to primary and secondary sources-including traditional historical documents, oral traditions, art, and literature-from the many cultures of the Pacific Northwest.
Identify and synthesize patterns over time in how regional inhabitants have understood, assigned meaning, utilized, and shaped the environment around them. Identify and assess the ways in which the history of the Pacific Northwest follows, contributes to, or departs from the larger contours of the American and global experience and, in so doing, confront and question their own presuppositions. Assemble, evaluate and analyze relevant historical evidence in order to craft wellsupported arguments in both oral and written form. Recognize the nature of history as an interpretive process, rather than merely as a body of facts. Armed with that recognition, and utilizing both primary and secondary sources, the student will be able to evaluate existing interpretations and to articulate their own interpretations.
HIST 302. Historical
Methods (5). Exercises in historical research, critical analysis, and interpretation. Students must earn a minimum grade of C as a major requirement. Course will be offered every year (Fall, Winter, Spring). Prerequisites: sophomore or junior standing and admission to either the history large, small or social studies teaching major.

Upon successful completion of this course, the student will be able to:
Analyze cause and effect relationships, bearing in mind multiple causation Isolate and articulate patterns of historical continuity and change
Analyze and critique a historical argument, evaluating its rhetorical effectiveness and identifying its underlying assumptions
Isolate and evaluate the validity of the central question(s) and perspective(s) of different kinds of historical sources
Identify appropriate finding aids, primary, secondary, and tertiary materials in the library and online
Organize and synthesize evidence to support an original argument
Develop a focused historical
assertion (thesis) and argument, addressing divergent stances on the topic Write clearly and coherently, using different rhetorical strategies in a scholarly style to enhance meaning Cite and document sources precisely and effectively according to Turabian guidelines Give and receive constructive criticism
HIST 309. American History through Film (5). Explores American history through the prism of film, how film represents the past, how filmmakers, historians, and the general public understand cinematic history, and how film can be viewed as both primary and secondary sources. Upon successful completion of this course, the student will be able to:
Identify and analyze the various ways that film expresses historical content and meaning. Utilize historical film as both primary and secondary historical sources.

Communicate historical ideas, in written and oral form, with precision and coherence.
HIST 313. History of Rome 500 B.C. to 500 A. D. (5).
Beginning, city-state, republican period; world empire; decline.

## HIST 314. Military History

of the United States (5). A
comprehensive and systematic survey and analysis of the American military experience from Colonial times through the Vietnam War. HIST 314 and MSL 314 are cross-listed courses; students may not receive credit for both.

## HIST 315. Muslim Middle

 East (Put on Reserve 9/16/16.) (5). The origins and spread of Islamic civilization and its interaction with GraecoRoman, Persian, and Indian civilizations. Crusades and the rise and fall of the Ottoman Empire. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Upon successful completion of this course, the student will be able to:Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.

## HIST 320. Narcotics in

 World History (5). Explores the use of narcotics in ancient and modern world history and their relationship to warfare, commerce, public policy, human health, taxation, race, religion, gender and power. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:Recognize major types of narcotics as well as their use in ancient and modern history.

Analyze the role that narcotics play in ancient and modern history.
Create a schema that reflects the intersection and relational mechanics of narcotics with historical forces such as finance, health, warfare, social issues and governance. Argue the role that public policy should take based on historical analysis of the ancient and modern world.
HIST 321. Latin America Through Film, Art, and Music (5). Analyzes the role of film, art, and music in understanding the social, cultural, and political history of Latin America in the colonial and modern eras.
Upon successful completion of this course, the student will be able to:
Understand resistance movements, state formation projects, and historical memory and identity formation as portrayed in film, art, and music.
Develop an understanding of Latin American cultural historiography.
Understand continuity and change over time.
Places major films, works of art, and musical styles in historical context and positions them in relation to major events in Latin American history.

## HIST 322. World Prehistory

(4). Old- and New-world prehistory from late Pliocene to the early historic period, including the ecology and development of huntinggathering, agriculture, and state-level societies. HIST 322 and ANTH 322 are cross-listed courses; students may not receive credit for both.
HIST 323. Food and Drink in Global History (5).
Examination of cultural, political, and economic roles food and drink have played in global history, 1400 to present. Themes: cultural exchange and globalization; national, ethnic and gender identities; empire and slavery; war;
industrialization; politics of food.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of how foodways of different nations and social groups have shaped and been shaped by historical events. Critically analyze similarities and differences in foodways across nations and social groups throughout the world, and over time from 1400 to the present.
Relate and compare their own foodways to those of other cultural groups, past and present.
Critically analyze and evaluate individually and in groups the cultural, political and ethical implications of foodways past and present, and thus better understand what's been and is at stake in deciding what to eat and drink.
Apply critical thinking skills to historical sources in order to craft well-supported arguments in written and oral presentations.
HIST 325. Renaissance and
Reformation (5). Survey of European political, social, cultural, and economic revolutions from the 14th to16th centuries; including medieval dissolution, humanism, overseas exploration, Protestantism, and popular culture. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in
Renaissance/Reformation history.
Isolate and analyze significant issues In
Renaissance/Reformation history.
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions. Organize and present ideas clearly.

Choose a
Renaissance/Reformation topic and develop a thesis-driver research paper based on primary sources.
Give examples of the relationship between the past and contemporary events and problems.
Conceptualize the rich diversity of human experience in other times and places.

## HIST 328. Modern Latin

America (5). Analyzes the history of Latin America in the past two centuries, from the Wars of Independence to the present day.
Upon successful completion of this course, the student will be able to: Identify the key events of modem Latin American history, and analyze their principal causes and consequences. Recognize the historians' craft of empathy and analyze primary documents from this perspective. Compare and contrast opposing historical interpretations, and come to your own perspective through a careful consideration of all relevant materials. Organize, present, and communicate your own opinions in a thoughtful, coherent fashion. HIST 329.
The Tropics and the Modern
World (5). Analyzes the history of the modern world through the history of tropical commodities.
Upon successful completion of this course, the student will be able to:
Identify the key events of modern history, and analyze their principal causes and consequences.
Demonstrate an understanding of your connections to peoples around the globe.
Recognize the historians' craft
of empathy and analyze primary documents from this perspective.
Compare and contrast opposing historical interpretations, and come to your own perspective through a careful consideration of all relevant materials.

Organize, present, and communicate your own opinions in a thoughtful, coherent fashion.
HIST 330. Africa to 1800 (5).
This course is designed to explore Africa's earliest civilizations; internal processes of change; external influences; state formation; complex societies; connections to the world economy. Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 331. Colonial Africa
(5). Africa on the eve of colonial conquest; causes of imperialism; colonial rule and African reactions and initiatives; independence and colonial legacy.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 332. History of the Black Diaspora (5). This course focuses on the black diaspora. It looks at the movement and impact of black people from Africa to other parts of the world. It examines their contribution to world civilizations and identities.

Upon successful completion of this course, the student will be able to:
Identify significant contributions of Africa and the
Black diaspora to world civilization and cultures. Describe the implications of race, class, identity and gender in the history of Black people. Analyze and synthesize primary and secondary sources on Black People and put forward a well-supported argument on their own. Identify differing explanations of the history of people of African descent across the world and through this, be able to make connections between cause and effect in the discipline of history. Make a clearly-written and clearly presented argument, including a thesis and sufficient and well-used supporting detail of relevant material.
HIST 334. History of Gender and Sexuality in Africa from Pre-colonial Times to the Present (5). This course examines the histories and changing aspects of gender and sexuality in different African contexts from the pre-colonial to the post-colonial eras. Topics will include marriage, politics, prestige, wealth, social cohesion, Christianity, AIDs, etc.
Upon successful completion of this course, the student will be able to:
Identify key events, themes, and concepts in the history of gender in Africa.
Isolate and analyze significant issues in the history of gender in Africa.
Critically analyze primary and secondary sources.
Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 339. Colonial British
America (5). Social, cultural, political, and economic life in the British colonies of North

America to 1763. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Conceptualize an American history outside the framework of a national political narrative.
Develop a capacity for empathy towards and engagement with the diverse peoples of early America. Engage with people unlike themselves (such as Native Americans and African Americans) on their own terms - rather than as passive victims or "savages" (noble or otherwise).
Identify, author, and read several genres of historical writing.
Formulate historical questions, identify relevant evidence, and create convincing interpretations that answer those questions. Reconstruct patterns of historical developments, and apply them to fundamentally historical questions about continuity, change, and historical causation. Identify and characterize the global forces at work in particular, highly localized colonial societies. Apply basic concepts drawn from disciplines such as economics, literary criticism, anthropology and sociology to the study of early American history.
HIST 341. The Constitution and the New Republic, 17831800 (5). Explores the origins of American government, society and culture by examining the Articles of Confederation, the crisis of the 1780s, the Constitutional convention, ratification, the Federalists and AntiFederalists, the creation of the first two-party system, Republican Motherhood, slavery, and the formation of American identity.
Upon successful completion of this course, the student will be able to:

Distinguish primary sources from secondary literature.
Develop and defend a thesis. Differentiate between shortterm and long-term historical forces and move beyond fact and date memorization to interpretation.
Deliver concise, cogent oral arguments on a given historical question.
Identify the role cultural understandings of race, class and gender play in history and how they affect the experience of individuals and groups in different historical contexts. Identify the historical context that produced the U.S. Constitution and other milestones in the formation of American government and identity, as distinct from presentist interpretations of the Constitution and 'Founding Era'.
HIST 344. American Manhood in Historical Perspective (5). This course examines the cultural construction of masculinity in America from the colonial period to the present. Important topics include the interplay between gender and politics, sexuality, race, courtship, religion, honor, and violence. Upon successful completion of this course, the student will be able to:
Demonstrate research and writing skills including effective organization, grammar, and style.
Work cooperatively with others preparing a formal presentation.
Analyze and historicize gender constructions and connect them with larger social, cultural, and economic themes.
Critically analyze historical documents and writings for gender bias.
Understand trends in the study of gender and sexuality through an overview of representative literature.

## HIST 346. Women in

American History (5). A survey of the role of women, their treatment, and response in

American society from colonial times to the present. Upon successful completion of this course, the student will be able to:
Identify key events, persons, and themes in US women's history.
Analyze the impact of economic, political and social forces on women's public and private lives.
Compare and evaluate opposing interpretations of historical issues by scholars, historical figures, film-makers, novelists, and journalists.
Recognize and appreciate diversity and interdependence. Understand the relationship between past and contemporary actions and strategies.
Familiarize with history sources in the university library.
Apply critical thinking and objectivity to evaluation of primary and secondary sources. Collect, organize, write, document and revise research materials and interpretations clearly, in writing and speaking.
HIST 348. Economic History of the United States (Department put on reserve $3 / 31 / 15$.) (5). Economic factors in the development of the American nation from the European background to the present. Department put on reserve $3 / 31 / 15$.
HIST 349. Economic History of Asia (Department put on reserve $3 / 31 / 15$.) (5). This course analyzes the post-war economic development of Asia. Dubbed the "Economic miracle of the 20th century" by the World Bank, the rapid economic rise of China, Taiwan, Japan, South Korea, India, and Singapore will be covered. Topics will include industrialization, state-society relations, labor migration, and the environment. Department put on reserve $3 / 31 / 15$. Upon successful completion of this course, the student will be able to:

Identify the major forces, both global and regional, that have affected the post-war economic development of Asia.
Compose concise and coherent essays.
Identify the business systems in several Asian countries, how and why they are similar and/or different, the relationship of the business system to the history and culture of that nation, and the special business advantages of each nation.
HIST 352. The History of the American Family (Put on reserve 9/16/17) (3). American family patterns from early settlement to the present; demography, gender roles, courtship, marriage, child raising, aging, ethnicity, and alternative lifestyles. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.)
HIST 370. Medieval European History (5). Survey of Western European history from late antiquity to the 16th century; political, economic, social, and religious thought and institutions.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in medieval history on examinations and in research papers.
Isolate and analyze significant issues in medieval history on examinations and in research papers.
Critically analyze primary and secondary sources in research papers.
Compare opposing interpretations and opinions, in class discussions and in research papers. Organize and present ideas clearly in written research papers and oral class discussions. Choose a medieval topic and develop a thesis-driven research paper based on primary sources.
Give examples of the relationship between the past
and contemporary events and problems in discussion.
Conceptualize the rich
diversity of human experience in other times and places.
HIST 380. Modern East Asia
(5). A survey of the modern histories of China, Japan, and Korea from 1600 to the present. Imperialism, nationalism, and the rise of communism are covered. Upon successful completion of this course, the student will be able to:
Understand the nature of history as a discipline, including the need to think chronologically and to understand different historical and cultural perspectives. Analyze important trends in the history of China, Japan, and Korea since the start of the 17th century and explain the causes and effects of those trends.
Learn to perceive, create, and/or use criteria to assess the reasonableness, acceptability, or quality of historical sources and arguments.
Learn to write concise and coherent historical essays.
HIST 383. East Asian
Civilization (5). A general survey of the development of civilization in China, Japan, and Korea to about 1600.
HIST 385. Aztec, Inca,
Maya: Empire and City in the New World (5). Introduces students to three key urban civilizations: the Mexica (Aztecs), Mayans, and Inca. the course focuses on political and social history as well as the "conquest" of those groups by the Spanish empire.
Upon successful completion of this course, the student will be able to:
Explain the foundation and maintenance of city civilization among the Mexica (Aztecs), Inca, and Maya.
Explain key examples of the interaction between humans and the environmental landscape as well as the consequences of those actions.

Compare and contrast imperial strategies for conquest/ expansion and governance of the Mexica (Aztecs), Inca, and Maya.
Identify and explain
foundational aspects of Mexica (Aztec), Inca, and Maya identity, including but not limited to music, architecture, science, literature, and religion. Identify and explain the major events of the Spanish conquest of the Mexica (Aztec), Inca, and Maya civilizations.

## HIST 386. The Latin

American Colonies (5).
Analyzes the history of Latin
America and the Caribbean
from pre-Columbian times to the Wars of Independence.

## HIST 395. Research in Local

History (1-6). Comparative local history with emphasis on research techniques and the utilization of sources. May be repeated for credit.
HIST 396. Individual Study (1-6). May be repeated if subject is different.
HIST 397. Honors (1-12).
Prerequisite: admission to department honors program.
HIST 398. Special Topics (16).

HIST 399. Seminar (1-5).
May be repeated if subject is different.

## HIST 402. Reading in European History (Put on Reserve 9/16/16.) (5).

Readings seminar on European history. May be repeated for up to 15 credits. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.)
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge that history is not simply the recitation of names and dates, but instead is a fluid subject where interpretations are constantly changing as a result of different methodologies and patterns of analysis.
Analyze and synthesize secondary sources in order to put forward a well-supported argument.

Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
Analyze significant issues, trends and developments in the practice of history.
Identify continuities and discontinuities between the various methodologies that have dominated the discipline.
HIST 403. Readings in
African, Asian, Middle
Eastern, Latin American
History (Put on reserve
9/16/17) (5). Readings seminar on African, Asian, Middle
Eastern, or Latin American
history. May be repeated for up to 15 credits. (Put on reserve
$9 / 16 / 17$. Will go inactive 8/24/2020.)
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge that history is not simply the recitation of names and dates, but instead is a fluid subject where interpretations are constantly changing as a result of different methodologies and patterns of analysis.
Analyze and synthesize secondary sources in order to put forward a well-supported argument.
Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
Analyze significant issues, trends and developments in the practice of history.
Identify continuities and discontinuities between the various methodologies that have dominated the discipline.

## HIST 421. Methods and

Materials in the Social
Studies, Secondary (5).
Prerequisite: admission to the Teacher Certification Program.
EDCS 311 is a recommended prerequisite.
Upon successful completion of this course, the student will be able to:
Apply knowledge of government, law, and politics
to produce pedagogically effective curriculum and instruction.
Apply knowledge of economic concepts and systems to produce pedagogically effective curriculum and instruction.
Apply knowledge of how geographic features and human cultures shape and impact environments to produce pedagogically effective curriculum and instruction. Apply knowledge of historical eras, turning points, major ideas, individuals, and themes of local, Washington state, tribal, United States, and world history to produce pedagogically effective curriculum and instruction. Identify and explain the major issue and philosophies shaping history and socials studies education today.

## HIST 422. Roman and

Medieval Britain (5). The
British Isles from Roman times to the beginnings of the Tudor dynasty. Course will cover the rise of the English monarchy, the creation of parliament, and the colonization of the British Isles. HIST 422 and HIST 522 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Analyze significant issues, trends and developments in early British history. Demonstrate knowledge that history is not simply the recitation of names and dates, but instead is a fluid subject where interpretations are constantly changing as a result of different methodologies and patterns of analysis.
Analyze and synthesize
primary and secondary sources
in order to put forward a wellsupported argument of their own.
Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting detail.

Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
Analyze the relationship between different regions in the British isles.
HIST 423. The Irish
Revolution (5). History and historiography of the Irish revolution. Topics include the constitutional and revolutionary antecedents, the course of the revolution, and the foundation of the Irish Free State. HIST 423 and HIST 523 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Analyze significant issues, trends and developments in the history and historiography of the Irish Revolution.
Demonstrate knowledge that history is not imply the recitation of names and dates, but instead is a fluid subject where interpretations are constantly changing as a result of different methodologies and patterns of analysis.
Analyze and synthesize primary and secondary sources in order to put forward a wellsupported argument of their own.
Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting detail. Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
HIST 424. Modern Ireland:
1798-present (5). The history
of Ireland from the revolt of 1798 through the present. Focus will be on the varieties of Irish nationalism, the process of state-building, and the ongoing troubles in the north. HIST 424 and HIST 524 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be
able to: Analyze significant issues, trends and developments in Irish history, particularly those that revolve around the role of religion the shifting definitions of Irish identity, and the varieties of Irish nationalism. Demonstrate knowledge that history is not simply the recitation of names and dates, but is a fluid subject where interpretations are constantly changing as a result of different methods or patterns of analysis. Analyze and synthesize primary and secondary sources in order to put forward well-supported arguments. Make a clearlywritten and clearly-presented argument, including a thesis and sufficient and well-used supporting evidence. Compare the ways in which artists and fiction writers use history and historical events with the ways in which historians use history and historical events. HIST 426. France 1789-1945 (5). French history through the lens of revolution. Discussions of the variety of French revolutions (1789, 1792, 1830, 1848,1870 ) and concluding with the National Revolution of Vichy France. HIST 426 and HIST 526 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Analyze significant issues, trends and developments in French history.
Demonstrate knowledge that history is not simply the recitation of names and dates, but is a fluid subject where interpretations are constant) changing as a result of different methods or patterns of analysis.
Analyze and synthesize primary and secondary sources in order to put forward wellsupported arguments. Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting evidence.

Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
HIST 427. Modern Britain and the Empire since 1763 (5). History of Britain and the Empire since the Seven Years' War. Topics include growth of empire, industrialization, political reform, world wars, decolonization, and post-war social changes. HIST 427 and HIST 527 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Analyze significant issues, trends and developments in Modern British history. Demonstrate knowledge that history is not simply the recitation of names and dates, but is a fluid subject where interpretations are constantly changing as a result of different methods or patterns of analysis.
Analyze and synthesize primary and secondary sources in order to put forward wellsupported arguments.
Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting evidence. Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
HIST 428. Early Modern
Britain 1485-1763 (5). History
of the Britain and the Empire during the Tudor-Stuart and early Hanoverian periods. Topics covered include the origins of the British Empire, the development of the British state, the Civil War and the Glorious Revolution. HIST 428 and HIST 528 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:

Analyze significant issues, trends and developments in early modern British history. Demonstrate knowledge that history is not simply the recitation of names and dates, but is a fluid subject where interpretations are constantly changing as a result of different methods or patterns of analysis.
Analyze and synthesize primary and secondary sources in order to put forward wellsupported arguments. Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting evidence. Identify differing explanations of historical change and the connections between cause and effect in the discipline of history.
HIST 429. Ireland and
Empire (5). Study of the interactions between Ireland and various world empires. The major emphasis will be Irish interaction with the British Empire, but there will also be discussion of Ireland's interaction with other global empires. HIST 429 and HIST 529 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to: \}
Analyze significant issues, trends and developments in the study of Ireland's relationship with various world empires and in the study of the role of empires and imperialism in Irish history Demonstrate knowledge that history is not simply the recitation of names and dates, but instead is a fluid subject where interpretations are constantly changing as a result of different methodologies and patterns of analysis Analyze and synthesize primary and secondary sources in order to put forward a wellsupported argument of their own

Make a clearly-written and clearly-presented argument, including a thesis and sufficient and well-used supporting detail Identify differing explanations of historical change and the connections between cause and effect in the discipline of history
Analyze the relationship between Ireland, the Irish people, and the British Empire
HIST 434. American Indian

## History to 1795 (5).

Discussion and lecture course on Native North American history from 1492 to the founding of the American Republic, and an introduction to the discipline and practice of ethnohistory, which combines traditional historical analysis with ethnographic concepts and research methodologies. HIST 434 and HIST 534 are layered courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Develop analytical thinking and writing skills. Understand and appreciate cultural differences in American history, and the variety of Native American experiences.
Understand the dynamics of cultural interaction between Native and Europeans/EuroAmericans; and to grasp the myriad strategies for survival adopted by Native peoples in the face of the gradually encroaching Euro-American political hegemony. Overcome stereotypes of Indians as impediments to "civilization" or "progress," and learn to view Native Americans as active participants in American history rather than passive observers or victims while Europeans and Americans "made" history. Comprehend basic principles of ethnohistorical approach and research: cultural change and/or continuity over time; syncretism; multiple causation
with respect to historical events; and seeing culture as adaptive and responsive rather than static.
Map historiographic treatment of Native Americans and integrate American Indian history into the mainstream American historical narrative.
HIST 438. American Indian History since 1795 (5).
Examines American Indian history since the Treaty of Greenville, wherein the U.S. recognized tribal sovereignty. Themes include resistance, assimilation, cultural revitalization, federal Indian policy, sovereignty, and reservation economics. HIST 438 and HIST 538 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify and explain key provisions in treaties between the U.S. and Indian peoples between 1795 and 1871, when the U.S. ceased to negotiate treaties with tribes. Explain the effectiveness--and effects of--American Indian attempts to resist conquest and assimilation. Also explain how resistance has changed over time.
Explain the meaning of American Indian sovereignty and discuss its limitations. Discuss how the nature of sovereignty has changed between 1795 and the present. Identify major changes in federal Indian policy since 1795 and explain how those changes affected Indian peoples.
Differentiate and explain the twentieth-century economic strategies of American Indian peoples, including wage labor, resource extraction, tourism, and gambling. Explain the impact of those strategies and assess their success.
Trace and explain historiographical trends in American Indian history.
HIST 440. The American
Revolution (5). Causes and
consequences of the American Revolution, 1688-1789. HIST 440 and HIST 540 are layered courses; students may receive credit for both.
Upon successful completion of this course, the student will be able to:
Distinguish primary from secondary literature. Develop and defend a thesis. Differentiate short-term from long-term historical forces. Interpret rather than memorize history.
Understand humans as both products and agents of history. Understand how the past shapes the present.
HIST 442. Jefferson, Jackson, and American Growth, 1800-1848 (5). Election of Jefferson to ratification of the Treaty of Guadalupe Hidalgo. Examines growth of political parties; development of a "working" and a "middle" class; changing gender relations; Manifest Destiny; Indian Removal; expansion of slavery; and revolutions in transportation, communication, and markets. HIST 442 and 542 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify the causes and implications of revolutions in transportation (esp. railroads, steamboats, canals), communication (telegraph and steam presses), and market capitalism, and explain how state and federal planning either did or did not promote those revolutions.
Explain similarities of and differences between the first party system and the second party system.
Explain why slavery expanded and what political, economic, and social consequences ensued.
Explain why "Manifest Destiny" occurred and what political, economic, and social consequences ensued.

Differentiate the "working class" from the "middle class", and explain how and why each developed in the nineteenth century.
Explain and provide a chronology on historiography (the history of historical interpretation) of either slavery, Manifest Destiny, class development, gender evolution, or the market revolution OR produce an analytical paper (based on primary resources).

## HIST 443. The West in

American History (5).
Exploration, territorial acquisition, patterns of settlement, economic development, and the influence of the frontier on American institutions. HIST 443 and HIST 543 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 444. Sectionalism, Civil War, and Reconstruction (5). Slavery, the Old South, sectionalism, the breakdown of the Union, and secession. A military, political, and social history of North and South during the Civil War, and the aftermath of the war. HIST 444 and HIST 544 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.

Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources
Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 445. Introduction to
Public History (5). This
course examines the venues
through which the general
public learns American history, with visits and analysis of exhibits and their interpretation.
Upon successful completion of this course, the student will be able to:
Demonstrate researching and writing skills including effective organization, grammar, and style. Critique interpretations of history in museums and other historical sites.
Compare scholarly analyses of specific historical events with views conveyed at regional public history sites such as museums, cemeteries, historic houses, battlefields and forts.

## HIST 450. Exploring U.S.

Cultural History (5).
Thematic approach to 19th century cultural transformations in U.S. Selected topics; mesmerism, utopias, true womanhood, women's rights, slave spirituals, confidence men, and gold rushes. HIST 450 and HIST 550 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Comprehend the relationship between political, social, and cultural history.
Comprehend discourse as a force that shapes history. Comprehend the difference between power and discourse. Comprehend the variety of cultural forms and experiences that shape history.

Identify the relationship between historical fact and historical interpretation. Analyze cause and effect relationships.
Present original historical analysis orally and in writing. Plan and write a research paper.
Locate finding aids, primary sources, and secondary literature in the library. Learn correct citation formats.
HIST 451. 20th Century U.S.: 1896-1919 (Put on reserve 9/16/17) (5).
Imperialism, progressivism, and World War I. HIST 451
and HIST 551 are layered courses; students may not receive credit for both. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources.
Compare opposing interpretations and opinions.
Organize and present ideas clearly, orally and in writing.
Revise written work
effectively.
HIST 452. 20th Century
U.S.: 1919-1945 (5).

Prosperity and depression; the New Deal and its implications; World War II, origins and conclusion. HIST 452 and HIST 552 are layered courses; students may not receive credit for both
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions.

Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 453. 20th Century U.S.: 1945 to the Present (Put on reserve 9/16/17) (5). Cold War, sedentary 50 s, rebellious 60s, the Watergate era. HIST 453 and HIST 553 are layered courses; students may not receive credit for both. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources.
Compare opposing interpretations and opinions.
Organize and present ideas
clearly, orally and in writing.
Revise written work
effectively.
HIST 454. American
Environmental History (5).
Environmental values and practices of the diverse populations of America. HIST 454 and HIST 554 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Reconstruct the historic meaning of events by identifying who was involved, what happened, where it happened, what events led to these developments, and what consequences followed. Reconstruct patterns of historical continuity and change.
Analyze cause and effect relationships bearing in mind multiple causation. Differentiate between historical facts and historical interpretations, but acknowledge that the two are related.
Perform research in primary and secondary sources.

Identify the central questions and perspectives in primary documents.
Bring sound and relevant historical analysis to the service of informed decision making on current environmental issues.
HIST 455. The 1950s: An American Cultural History (5). Survey of cultural and social trends found in the United States between 1945 and 1960; suburban and commercial development, the economic prosperity, changing gender roles, race, development of television, new musical genres and teenage culture. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Define the cultural changes of the 1945-1960 era
Recognize and reconstruct the chronology of and significance of important events and people in U.S. cultural history between 1945 and 1960. Interpret historical documents in the perspective of their time and place.
Identify how the cultural change is dependent on space, new technology and ideology. Recognize patterns of change and understand how fact selection influences interpretations of events
HIST 460. Religion in Latin
America (5). Analyzes the
relationship between individuals, religious movements, and the state from the pre-Columbian era to the present. HIST 460 and HIST 560 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Understand relationships between individuals, the state, and religion in Latin America. Develop and defend a thesis statement (an historical assertion argued with facts and logic).

Understand continuity and change over time.
Understand basic ideas, beliefs, and concepts of various religious groups in Latin America.
HIST 461. History of Health and Healing in Africa (5).
This course explores different African societies' approaches to the ideas of personal and social health, healing, and medicine, and how these have changed over time. HIST 461 and HIST 561 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Define different categories of health and healing and connect these to distinct political, social, and medical practices Analyze primary and secondary sources about the past, linking them to the individuals/schools of thought that produced them and their implications for our understanding of the past Explain connections between different approaches to health and healing in both oral and written form
Identify why and how historical modes of evaluating health and healing have changed over time HIST 462. History of American Foreign Relations: 1900-1941 (5). From the Spanish-American War to Pearl Harbor. HIST 462 and HIST 562 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions.
Organize and present ideas
clearly, orally and in writing.

Revise written work
effectively.
HIST 463. History of American Foreign Relations Since 1941 (Put on reserve 9/16/17) (5). From Pearl Harbor to the present. HIST 463 and HIST 563 are layered course; students may not receive credit for both. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions. Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 464. Latin American Revolutions (Put on Reserve 9/16/16.) (5). Analyzes revolutions and peasant revolts in Latin America and the Caribbean from 1750 to the present. HIST 464 and HIST 564 are layered courses, students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Demonstrate a knowledge of underlying theoretical reasons for peasant revolt.
Develop and defend a thesis statement (an historical assertion argued with facts and logic).
Understand continuity and change over time.
Demonstrate an understanding of major themes in both the causes and effects of revolution and revolt.
HIST 465. History of the People's Republic of China
(Put on Reserve 9/16/16.) (5). Evaluates the historical record of the Chinese Communists in
power since the establishment of the People's Republic of China in 1949. HIST 465 and HIST 565 are layered courses; students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Understand the nature of history as a discipline, including the need to think chronologically and to understand different historical and cultural perspectives. Analyze important trends in P.R.C. history and explain the causes and effects of those events.
Learn to perceive, create, and/or use criteria to assess the reasonableness, acceptability, or quality of historical sources and arguments.
Learn to write concise and coherent historical essays.
HIST 472. German History since 1815 (Put on reserve as of $9 / 16 / 15$.) (5). A political, socio-economic, and intellectual study of Germany with special attention to the causes, progress, and aftermath of the National Socialist State. HIST 472 and HIST 572 are layered courses; students may not receive credit for both. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions.
Organize and present ideas
clearly, orally and in writing.
Revise written work
effectively.
HIST 473. Russia to 1881 (5).
The political, social, economic, and cultural development of Russia from ancient times to
the assassination of Alexander II. HIST 473 and HIST 573 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area,
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions.
Organize and present ideas
clearly, orally and in writing.
Revise written work
effectively.
HIST 474. Russia Since 1881
(5). The political, economic, social and cultural history of Russia and the Soviet Union since 1881. HIST 474 and HIST 574 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in the history of this area.
Isolate and analyze significant issues in the history of this area.
Critically analyze primary and secondary sources. Compare opposing interpretations and opinions.
Organize and present ideas clearly, orally and in writing. Revise written work effectively.
HIST 476. History of Modern
East Europe (Put on Reserve
9/16/16.) (5). Poland, Czech, Slovak Republics, Austria, Hungary, Romania,
Yugoslavia, Bulgaria, Greece, Albania, with special attention to multi-ethnicity, economic underdevelopment and modernization, political dependence, and nationalism. HIST 476 and HIST 576 are layered courses; students may not receive credit for both. (Put on Reserve 9/16/16. Last
taught in 2013. Will go inactive $8 / 24 / 19$.)
Upon successful completion of this course, the student will be able to:
Identify key political and physical features of East European geography on map quizzes.
Identify and describe the historical significance of key terms in East European history on exams.
Reconstruct patterns of historical continuity and change in East Europe in papers, presentations, and exams.
Prepare and present historical analysis orally (presentations, discussions) and in writing (papers and exams).
Plan and write a seminarlength research paper based on a literary source, other primary evidence (HIST576) and secondary evidence. Identify the relationship between historical fact and historical interpretations, on exams and papers.
Analyze cause and effect relationships, bearing in mind multiple causation, on exams and papers.
Bring sound and relevant historical analysis to the service of informed decision making, in discussion. Research, organize, and present a research-in-progress lecture (HIST 576).
HIST 478. Russian Far East
(5). Russian Far East history from 16th century Cossack exploration to 21 st century democracy. Topics include the imperial "urge to the sea," the Trans-Siberian Railway, the Soviet gulag system, and
Pacific Rim relations. HIST 478 and HIST 578 are crosslisted courses; student may not receive credit for both. Department reactivated for Fall 2016.

Upon successful completion of this course, the student will be able to:
Identify key events, persons, and places in Russian Asian history.

Isolate and analyze significant issues in Russian Asian history.
Critically analyze primary and secondary sources.
Compare opposing
interpretations and opinions.
Organize and present ideas clearly.
Give examples of the relationship between the past and contemporary events and problems.
HIST 481. Senior Thesis (4).
Analysis of the nature of history, of the way historians reason, and of the search for meaning in history. Students must earn a minimum grade of C as a major requirement. Course will be offered every year (Fall, Winter, Spring). Prerequisites: HIST 302 with a grade of C or higher and senior standing.
Upon successful completion of this course, the student will be able to:
Locate finding aids, primary, secondary, and tertiary materials in the library, archives, and online Analyze and draw reasoned conclusions from primary and secondary sources Isolate and compare the central question(s) and perspective(s) of different kinds of historical narrative
Reconstruct patterns of historical continuity and change in the historical period of study
Analyze cause and effect relationships, bearing in mind multiple causation Identify the relationship between historical fact and historical interpretations, and situate analysis within a larger historiography
Plan and write a substantial research paper on a topic of your choice, based on preparatory steps Present coherent, persuasive, and original historical analysis orally and in writing Demonstrate proper use of formal source citation and avoid plagiarism

Share ideas and critique historical works as part of a collegial community of scholars
HIST 483. Modern China (5).
The history of China in the 19th and 20th centuries, including the nature of China's response to the West and the Chinese Revolution of the 20th century. Emphasis on internal social and economic change. HIST 483 and HIST 583 are layered courses; students may not receive credit for both.
HIST 488. Mexico in the
Modern Era (5). Analyzes the modern history of Mexico, from independence to the present day. HIST 488 and HIST 588 are layered courses; students may not receive credit for both.

## HIST 490. Cooperative

Education (1-8). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. HIST 490 and HIST 590 are layered courses; students may not receive credit for both. Department consent. May be repeated for credit. Grade will either be S or U .
HIST 496. Individual Study (1-6).
HIST 497. Honors Individual
Study (1-6). Open to students accepted into the departmental honors program. This course may be repeated once, but no more than an over-all total of 6 credits per quarter is permitted.
HIST 498. Special Topics (16).

HIST 499. Seminar (1-5).
May be repeated if subject is different.
HPE 298. Special Topics (16). May be repeated if subject is different.
HPE 299. Seminar (1-5). May
be repeated if subject is different.
HPE 396. Individual Study
(1-6). May be repeated if subject is different.

HPE 397. Honors (1-12).
Prerequisite: admission to department honors program.
HPE 398. Special Topics (1-
6). May be repeated if subject is different.
HPE 399. Seminar (1-5). May
be repeated if subject is different.
HPE 443. Sex, Drugs and Going Pro: Issues in Professional Sports (3). This course will provide students with an in-depth exploration of contemporary problems and scandals in professional sports so they can contemplate, assess and suggest methods for cultural change at the professional sports level. HPE 443 and HPE 543 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Research and define contemporary issues in professional sports. Identify historical issues that led to, or may have led to, contemporary problems in professional sports. Synthesize the historical and contemporary data about problems in professional sports and relate it to modern problems in interscholastic and intercollegiate sports. Identify specific professional sport programs or policies that lead to problems and scandals. Identify and recognize professional governing organizations and their programs for dealing with negative sports and personnel issues. Explore marketing trends to boost positive images. Forecast future trends for professional sports that will be positive and negative for athletes who are "going pro" in the years to come.
HPE 444. The Promise and Pitfalls in Interscholastic Athletic Programs (3). This course will provide students with an in-depth exploration of contemporary issues surrounding interscholastic athletics at the local, state and
national levels. The student will contemplate and assess the critical issues in secondary school athletics and appraise possible solutions for specific case studies. HPE 444 and HPE 544 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Define the general promises and pitfalls of interscholastic athletics.
Identify contemporary issues in interscholastic athletics at the local level.
Identify contemporary issues in interscholastic athletics at the state level.
Identify contemporary issues in interscholastic athletics at the national level.
Recognize local, state, and national organizations' attempts at corrective actions for contemporary interscholastic athletic pitfalls. Define, explore, and forecast the most critical issues in Interscholastic athletics and appraise contemporary solutions on a case-by-case focus.
HPE 445. The Good, Bad and Ugly of Intercollegiate Sports
(3). This course will provide students with an in-depth exploration of current positive and negative topics surrounding intercollegiate athletics. The students will contemplate and assess critical issues through historical and contemporary case studies. HPE 445 and HPE 545 are layered courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Research and define the current positive aspects of intercollegiate athletics.
Research and define the current negative aspects of intercollegiate athletics. Demonstrate knowledge of general positive and negative aspects of intercollegiate athletics as looked at through
local, state, and national purview.
Identify specific cases of positive and negative issues with intercollegiate athletics at the local level.
Identify specific policy in intercollegiate athletics at the state and national levels that will maintain positive trends. Consider local, state, and nation trends with intercollegiate athletics and forecast how to head-off, or plan for, future negative impacts they will have on intercollegiate athletics.
HPE 496. Individual Study
(1-6). May be repeated if subject is different.
HPE 497. Honors (1-12).
Prerequisite: admission to department honors program.
HPE 498. Special Topics (1-
6). May be repeated if subject is different.
HPE 499. Seminar (1-5). May
be repeated if subject is
different.
HRM 298. Special Topics (1-
6). May be repeated if subject is different.
HRM 299. Seminar (1-5).
May be repeated if subject is
different.
HRM 381. Management of Human Resources (5). Selection of personnel, methods of training and retraining workers, wage policy, utilization of human resources, job training, administration of labor contracts, and public relations. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Define the role and evolution of human resource management within organizations and how individuals have interfaced with roles, jobs, organized labor and organizations over time.
Identify and explain theories psychological, sociology and social psychology underlying human capital selection,
placement and management at both micro and macro levels. Demonstrate understanding of major employment laws and corresponding qualitative and quantitative analysis related to employee staffing, discrimination and compensation.
Discuss the role of optimal and destructive implicit and explicit human behavior in major human resource functions including performance management, training and development and equal employment opportunity. Describe the role and value of cultural, gender, economic, knowledge and aptitude diversity within an organization. Define the influence and role of work, compensation and individual career management on individual and community well-being.
HRM 396. Individual Study (1-6). May be repeated if subject is different.
HRM 397. Honors (1-12). Prerequisite: admission to department honors program.
HRM 398. Special Topics (1-
6 ). May be repeated if subject is different.
HRM 399. Seminar (1-5).
May be repeated if subject is different.
HRM 442. Training and Development (5). Application of training and development concepts and techniques used in assessing training requirements, planning and budgeting training programs, developing and facilitating training, and evaluating results. Prerequisites: HRM 381 and admission to a College of Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 OR
(HRM 381 and declaration of a

Human Resource Management minor).
Upon successful completion of this course, the student will be able to:
Identify training needs and propose a training program to address them.
Demonstrate understanding of the training process, including needs analysis, training design, implementation of training, and evaluation of training.
Apply concepts from the class to current examples found in the news.
Demonstrate the ability to utilize a wide variety of training methods.
HRM 445. Organizational
Staffing (5). Applied and conceptual analysis of strategic personnel planning, recruiting, selecting, negotiating, socializing, career developing, retaining, and transitioning. Prerequisites: HRM 381 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25; OR (HRM 381 and declaration of a Human Resource Management minor).
Upon successful completion of this course, the student will be able to:
Enumerate the staffing process and steps.
Recognize the foundational importance of job analysis and understand how this is conducted.
Demonstrate the different selection philosophies that can be applied to workforce staffing.
Apply statistical techniques to the selection decision-making process.
Demonstrate understanding of staffing theory and concepts.
HRM 479. Employee
Relations (5). Statutory and
case law governing labor relations. Contracts and negotiations. Impasse procedures. Arbitration cases and grievance procedures. Contemporary issues and cases. Prerequisites: HRM 381 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25; OR (HRM 381 and declaration of a Human Resource Management minor).
Upon successful completion of this course, the student will be able to:
Understand and participate in negotiations.
Create and provide accurate feedback to employees.
Understand the process of unionization and how management and unions interact.
Engage effective dispute resolution.
Develop employee involvement and retention programs.

## HRM 486. Problems in

 Human Resource Management (5). Analysis and research on selected topics involving contemporary issues in personnel management. This is the capstone course for the HRM specialization. Course will be offered every year (Fall, Winter, Spring).Prerequisites: HRM 381 AND two (2) approved elective courses from the Human Resource Management specialization AND admission to a College of Business major AND completion of the College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C- grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Understand and apply human resource management strategy to professional scenarios.
Demonstrate mastery knowledge on one topic of human resource management. Demonstrate working professional knowledge of all professional HR concepts as tested by the society for human resource management. Demonstrate ability to develop professional relationships within the regional human resource management community.
HRM 488. Compensation Policy and Administration (5). Employee compensation policy and administration is studied on a broad perspective encompassing direct financial payments, employer benefits, and non-financial rewards. Prerequisites: HRM 381 AND admission to a college of business major AND completion of the college of business foundation courses
(ACCT 251 and ACCT 252
and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum grade of C - in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Understand the integration of compensation and employee motivation principles in both the public and private sector. Demonstrate correct use of compensation principle vocabulary in discourse with peers.
Identify employment law issues with organizational compensation practices and provide sound solutions to said issues.
Explain how revisions and adjustments to compensation systems within organizations
affect multiple domains of human resource management.
HRM 490. Human Resources Management Internship (1-
12). An individualized, contracted field experience with business, industry, government, or social service agencies focusing on human resources management related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By department permission. May be repeated up to 20 credits. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa. Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Substantive discipline-based outcomes developed by individual students in consult with faculty advisor
HRM 493. Human Resources Management Boot Camp (1-
6). Supervised field experience seminar focused on human resources management related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. Grade will either be S or U . Permission of instructor. May be repeated up to 6 credits. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp Exhibit professional behavior and appropriate business skills in industry setting. Establish a professional network within the industry professionals

Illustrate an awareness of the organization(s) participating in the boot camp.
HRM 496. Individual Study
(1-6). May be repeated if subject is different.
HRM 497. Honors (1-12).
Prerequisite: admission to department honors program.
HRM 498. Special Topics (1-
6). May be repeated if subject is different.
HRM 499. Seminar (1-5).
May be repeated if subject is different.
HUM 101. Exploring Cultures in the Ancient World (5). An interdisciplinary exploration from literature, history, philosophy, and the arts of selected major ancient civilizations in Asia, Africa, Europe, and/or the Americas from their beginnings through the 15 th century. Course will be offered every year (Fall, Winter, Spring, Summer). AHLiterature and Humanities (W). Prerequisites: ENG 101 with a grade of C- or higher. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of assigned readings of literary, dramatic, philosophical, and religious works produced in various ancient and medieval cultures.
Synthesize past understandings of humanistic knowledge with current understandings, drawing connections between the ancient through medieval periods and the present.
Analyze selected writings, paintings, drawings, sculptures, and music pieces produced in ancient and medieval cultures as means of interpreting human experience and defining "human" during this time span. Identify their own cultural presuppositions, including prejudices, within the larger perspective of various cultural norms within the ancient/medieval periods. Analyze the ways in which historical, linguistic, religious,
philosophical, and artistic factors shape human cultures. Identify commonalities and differences across human cultures in the ancient/medieval world and in the present.

## HUM 102. Exploring

Cultures From 16th through
19th Centuries (5). An
interdisciplinary exploration of selected literature, history, philosophy, and the arts in Asia, Africa, Europe, and the Americas from the 16th through the 19th centuries. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Literature and Humanities (W). Prerequisites: ENG 101 with a grade of C- or higher.
Upon successful completion of this course, the student will be able to:
Recognize and accurately recall material in assigned readings of literary, dramatic, philosophical, and religious works produced in various cultures during the 16th to 19th centuries.
Synthesize past understandings of humanistic knowledge with current understandings, drawing connections between the 16th-19th centuries and the present.
Analyze selected writings, paintings, drawings, sculptures, and music pieces produced in the 16th-19th centuries as means of interpreting human experience during this time span.
Identify their own cultural presuppositions, including prejudices, within the larger perspective of various cultural norms within the 16th-19th centuries.
Analyze the ways in which historical, linguistic, religious, philosophical, and artistic factors shape human cultures. Identify commonalities and differences across human cultures from the 16th century to the present.
HUM 103. Exploring
Cultures in Modern and
Contemporary Societies (5).

An interdisciplinary exploration of literature, history, philosophy, and the arts of selected world civilizations of the 20th and 21st centuries. Course will be offered every year (Fall, Winter, Spring, Summer). AHLiterature and Humanities (W). Prerequisites: ENG 101 with a grade of C- or higher. Upon successful completion of this course, the student will be able to:
Recognize and accurately recall material in assigned readings of literary, dramatic, philosophical, and religious works produced in various cultures since 1900 .
Synthesize past understandings of humanistic knowledge since 1900 with current understandings, drawing connections between past and present perceptions within their historical/cultural context. Analyze selected writings, paintings, drawings, sculptures, and music pieces produced in various cultures since 1900 as means of interpreting human experience during this time span.
Identify students' own cultural presuppositions within the larger perspective of various cultural norms since 1900. Analyze the ways in which historical, linguistic, religious, philosophical, and artistic factors have shaped human cultures in the 20th and 21st centuries.
Identify commonalities and differences across human culturesfrom 1900 to the present.
HUM 298. Special Topics (1-
6 ). May be repeated if subject is different.
HUM 299. Seminar (1-5).
May be repeated if subject is different.
HUM 396. Individual Study (1-6). May be repeated if subject is different.
HUM 397. Honors (1-12). Prerequisite: admission to department honors program. HUM 398. Special Topics (16).

HUM 399. Seminar (1-5).
May be repeated if subject is different.
HUM 496. Individual Study
(1-6). May be repeated if subject is different.
HUM 497. Honors (1-12).
Prerequisite: admission to department honors program.
HUM 498. Special Topics (16).

HUM 499. Seminar (1-5).
May be repeated if subject is different.
IDS 289. Introduction to the
Major (1). Introduction to the interdisciplinary studies major, interdisciplinary studies degree proposal design and preparation. By permission. Grade will either be S or U . Upon successful completion of this course, the student will be able to:
Design an individual course of study leading to the accomplished through the Interdisciplinary Studies Social Sciences degree program.
Design an individual course of study leading to the accomplishment of the individual learning goals. Design an individual learning plan, including academic goals, to be accomplished in the Interdisciplinary Studies-Social Sciences degree program.
IDS 298. Special Topics (1-6).
May be repeated if subject is different.
IDS 299. Seminar (1-5). May be repeated if subject is different.
IDS 305. Surviving to
Thriving: An
Interdisciplinary Approach to Developing Resiliency and Coping (3). Critical exploration of concepts, research, and techniques pertaining to resiliency and coping. Application of biopsychosocial and cultural perspectives. Students will utilize experiential exercises to understand ways to enhance optimism, decrease stressors, and improve wellbeing. Course will be offered every year (Winter, Summer).

Upon successful completion of this course, the student will be able to:
Distinguish between resilient and non-resilient characteristics.
Outline the variety of factors (biopshychosocial and cultural) that contribute to resiliency. Analyze the development of resiliency.
Predict resiliency
and decipher coping capabilities, limitations, and competencies.
Design an individual plan to apply resiliency-related concepts to approaches to life situations.
Implement and evaluate a variety of resiliency and coping techniques by applying and executing some of the strategies included in individual plans of study.
IDS 311. Don't Lie to Me: Contemporary Profiling (5).
This course explores and examines the use of profiles is contemporary policing with a focus on violent crimes. The discussions and readings examine what criminal profiling is, what it accomplishes, and how it is utilized. Criminological theory and applicable research articles are used to examine the legitimacy of profiles and measures deception. Prerequisite: PSY 101 or SOC 107.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the basic theories and practice surrounding profiling. Identify measures of deception and how to detect them. Review and apply contemporary research articles associated to the basic theory (profiling) and the relevance that they provide to the practice of profiling. Teach students the psychosocial impacts that influence serial and habitual offenders in their formative years. Identify the basic personality types represented within the
habitual offender population and the most common
"triggers" of violent and antisocial actions. Identify and differentiate the basic "signatures" of serial offenders and to interpret archival clues contained in report and scene documentation.
IDS 321. Body Image, Wellness and Popular Culture (5). This course focuses on body disturbances and how they affect wellness; including examination of how popular culture influences them. Various aspects, influences and assessments of body image will be used as the basis to develop an action plan to prevent and/or support individuals who experience them.
Upon successful completion of this course, the student will be able to: Describe the signs and symptoms of body image disturbances and how these disorders impact the different aspects of wellness. Identify and interpret aspects of popular culture that leads to unhealthy attitudes and practices
surrounding weight, shape and physical appearance in general. List the ways in which one can prevent and treat body image disturbances. Articulate how to decrease the impact body image disturbances can have on a person's wellness. IDS 323. Dangerous Women: Mad, Bad or Misunderstood
(5). Violent crimes are generally associated with men; however, more and more women are becoming dangerous criminals. This class examines different theories behind violent women. Material will include cases of real-life female criminals, as well as fictional representations in movies and television. Prerequisites: PSY 101 or SOC 107.
Upon successful completion of this course, the student will be able to:

Ability to identify the various theories relating to violent behavior in women. Increased ability to critically analyze and discuss controversial topics and actively participate in group discussions with peers and professor.
Produce interdisciplinary research and persuasively argue a position based on this research.
Ability to create dynamic presentations around a central theme.
IDS 343. Origins and Results of Food Technology: The Gluttonous Human (5). As food production technologies have become increasingly complex, humans are facing adverse consequences. This course explores the evolution of feeding strategies from Paleolithic until the present, including corporate farming, GMO, and diseases of novel environments. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Examine the Neolithic revolution, the development of agriculture, its origin, the various steps up to GMO plants.
Contrast food choices and availability among various social classes and commensurate outcomes in health, especially obesity. Outline approaches to the management of natural and labor resources in various settings: Tiwanaku, Machu Picchu, Bali, Bolivia Examine diseases of novel environment and infections from viruses. Inventory the use of chemicals, additives, dyes, flavorings, and preservatives in food.
Apply evolutionary approaches to understand obesity in the United States. Be able to recognize and predict opportunistic behaviors and instant gratification.

Evaluate the ingredients in processed food and in fast food restaurants, and apply this knowledge to one's own eating behavior.
Critically analyze the contributions of genes, individual life choices, and culture on health outcomes (e.g., cancer risk, diabetes, and obesity).
Record behaviors in one's eating pattern and deduce the negative and positive ones. Outline approaches to the management of natural and labor resources in various settings: Tiwanaku, Machu Picchu, Bali, Bolivia. Analyze survival strategies in calorie restricted hypoxic environment (Bolivia, 13000 ft.)
Evaluate how biology and physiology can be negatively affected by food technology locally and internationally (thrifty genotype/diabetes/ Obesity.)
IDS 353. National Parks and Reserves (Put on reserve 9/16/17) (5). This course focuses on the development of the National Parks, the Forest Services, and other land and marine reserves in the United States, as well as policies effecting them. The course also focuses on international parks and preserves, and varied models of natural and cultural resource management. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
IDS 357. Race, Drugs and Prohibition in the U.S.: What Makes Drug Use Criminal?
(5). Marijuana, cocaine, coffee and sugar. Why are some drugs
"good" and some "bad"? Explore the "Drug War", motivations for regulation, current dilemmas and social justice implications in the United States, from an interdisciplinary approach. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:

Identify the basic principles and ideologies that underlie drug regulation in the U.S., as well as the institutions that support and promote regulation.
Distinguish between social, political, economic, health and moral motivations for drug regulation.
Identify and distinguish common assumptions about drug use/abuse and explain how they inform social attitudes about drugs and the people who use them. Evaluate the pros and cons of a specific ideology that informs
U.S. drug policy, and assess whether this ideological approach guides regulations towards productive or counterproductive outcomes. Analyze how social attitudes help shape drug regulation and how existing social inequalities inform enforcement.
Articulate ways that race, class, and gender might influence individual attitudes about drug use, abuse, and regulatory enforcement.
IDS 363. The Simpsons: Social Institutions and National Community (5). The television show, "The Simpsons", students will gain an understanding of the major themes and concepts that structure life for the members of the pluralistic American community.
Upon successful completion of this course, the student will be able to:
Gain an understanding and appreciation of the pluralistic American community.
Critically examine the role of informed citizen and leader in the United States of America. Conduct research and inquiry in the major themes and concepts structuring American life.
Use evidence to develop and evaluate positions on topics covered in the class, including historical, political, literary and cultural perspectives.
Make plausible interpretations and express informed opinions
about topics covered in the class.

## IDS 369. Living Voices of

 America: AnInterdisciplinary Approach to Indigenous Women in the
U.S. (5). This course will focus on Indigenous women in the United States from past to present day. There will be extensive coverage of Indigenous women's daily roles and lives, including socialization, colonization, and social service issues. The course will also focus on methods of decolonization. Prerequisites: ANTH 130 or PSY 101 or SOC 107 or SOC 301 or WGS 201 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Examine Indigenous women's roles in historical, cultural, and regional contexts in the U.S. Investigate the ways that traditional knowledges and cultures have shaped Indigenous women's identities and will consider the alliances that Indigenous women have built across national geographies. Explore gender issues within Indigenous communities, focusing on the effects of legislation on Indigenous women's roles and the impact of colonization on gender practices.
Examine colonization through the prisms of Indigenous women's life experience, exploring colonization issues and methods of decolonization. Explore the role of social service organizations in the lives of Indigenous women in the United States.
IDS 373. The Purpose of the United States (5). Is the United States just another country, acting in its own national interest? Or does the United States have some long term global purpose? This course analyzes patterns in the American experience to answer these questions.

Upon successful completion of this course, the student will be able to:
Discuss the connection between expanding democracy within the United States and increasing democracy in the rest of the world.
Discuss the cultural differences between collectivism and individualism, and the United States role in increasing global individualism and decreasing global collectivism. Discuss the connection between Great Britain's global role between 1815 and 1914 and the United States global role between 1941 and the present.
Discuss the United States role in establishing free market economies in other countries. Understand the interaction of culture, economics, politics and demographic and sociological trends in the development of democracy.
IDS 389. Academic and Career Exploration (3). This course leads IDS-social sciences students in the development of a career/graduate school plan. Students will investigate the work world and/or graduate schools in terms of their academic and personal goals.
Students will modify their IDS
289 program. Prerequisite: IDS
289 and junior status or above.
Upon successful completion of this course, the student will be able to:
Explore the relationship between personal characteristics, e.g., interests, values and skills, influence career development. Use a variety of resources to explore academic and occupational options. Develop an individual career/academic plan. Build a career or graduate school portfolio.
IDS 396. Individual Study (1-
6). May be repeated if subject is different.
IDS 397. Honors (1-12).
Prerequisite: admission to department honors program.

IDS 398. Special Topics (1-6). IDS 399. Seminar (1-5). May be repeated if subject is different.
IDS 405. Essentials of Project Funding in the Social
Sciences (5). Students enrolled in this course will be introduced to essentials of project funding specific to the social sciences disciplines. Course topics include defining the purpose and identifying the need for funding, completing a needs assessment, and identifying funding resources. Students will be required to submit a funding proposal. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: senior status and B or higher in ENG 102.
Upon successful completion of this course, the student will be able to:
Define a problem or identify an opportunity for a funding.
Choose, assess and prioritize
funding options.
Prepare a viable funding proposal solution, including goals, objectives, outcomes and evaluation techniques. Propose a final and complete funding plan.
IDS 489. Senior Portfolio
Project (1). End-of-program assessment; preparation of comprehensive degree report and/or descriptive portfolio of project. Students must earn at least a C grade to pass this course. Students will enroll in IDS 489 no earlier that 2 quarters following successful completion of IDS 289.
Instructor permission. Prerequisites: IDS 289, student will have completed a minimum of 165 credits, and admission to the Interdisciplinary Studies: Social Sciences major. Upon successful completion of this course, the student will be able to:
Assess one's own progress toward the learning goals of interdisciplinary Studies Social Sciences major and
provides the university with program assessment feedback. Prepare for academic or career future alternatives, job interview, and/or graduate school application Integrate documents representing skills learned as an Interdisciplinary Studies Social Sciences major.
IDS 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit.
Grade will either be S or U .
IDS 496. Individual Study (1-
6). May be repeated if subject is different.
IDS 497. Honors (1-12).
Prerequisite: admission to department honors program.
IDS 498. Special Topics (1-6).
IDS 499. Seminar (1-5). May
be repeated if subject is
different.
IEM 103. Introduction to Energy and Science Inquiry
(5). Complex global issues of regional energy and energy management impacts today's global society and is best approached by learning and applying knowledge and skills of scientific investigation through basic life, physical, and earth sciences. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to:
Define, explain, and apply basic life, physical, and earth/space science concepts of energy science and global implications.
Design, perform, and modify approaches to inquiry-based experimentation through best practices research in energy science.
Identify and apply
measurement technologies to record valid and reliable data during best practices research
experimentation in energy science.
Analyze experimental data using tables, graphs, and math models to propose and experimentally test sustainable solutions to energy problems. Research current literature, evaluate, create, use, modify, and defend perspectives of energy science that use evidence based claims that are scientifically valid and reliable through scientific investigation that yields experimental reproducible results.
IEM 198. Special Topics (16).

IEM 290. Cooperative
Education (1-10). A preprofessional apprenticeship.
An individualized field experience with energy companies and relevant governmental and nongovernmental organizations to develop basic and advanced skills in energy management. The course involves a student learning plan, cooperating employer supervision, and faculty coordination. Prerequisite: by permission of director of the institute for integrated energy studies.
IEM 298. Special Topics (16). May be repeated if subject is different.
IEM 299. Seminar (1-5). May
be repeated if subject is
different.

## IEM 301. Energy

Management (5). Principles
and methods of energy management in residential, commercial and industrial settings, history of energy production; basics of energy supply and uses; energy conservation and efficiently in various settings; environmental, political and economic implications. Upon successful completion of this course, the student will be able to:
Recognize the principles of energy management in different settings.
Discuss the history of energy production.

Apply energy management techniques (auditing, optimization, etc.) to real world problems.
Identify and analyze energy conservation opportunities in residential, commercial and industrial settings.
Develop strategies for assuring
compliance with energy policies and procedures.
IEM 302. Energy,
Environment, and Climate
Change (4). The course examines the physical principles behind climate change science and how they relate to energy and resource use on our planet.
Emphasis placed on examining how energy decisions impact past, present, and future climates. Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the Earth's climate system and how both natural and human factors influence the functioning of that system.
Explain how and why past climates vary from those of today and evaluate how energy production in all forms has influenced those climatic variations.
Discuss and present the ways in which global climate change impacts Earth's non-energy resources (i.e., freshwater supply, food supply, faunal/floral biodiversity, soils, etc.) and the effects of this on society and its sustainability. Evaluate how global energy production and consumption choices influence the development of Global Climate Models and how different scenarios (mathematical inputs) alter projections of future climate change.
Research, analyze, and present on the extent to which a select country/region contributes to global climate change and how their energy production and consumption decisions play a role in this.

Identify, collect, and critique data and literature resources relating to past, present, and future global climate change. IEM 310. Inquiry Science in Energy Management (5). Interdisciplinary investigation of applied life, physical, and earth science concepts applicable to secondary school classrooms using integrated contexts. Applied inquiry processes are used to increase student knowledge, skills, and dispositions. Prerequisite:
ECON 130 or MATH 130 or MATH 153 or MATH 154 or MATH 170 or MATH 172.
Upon successful completion of this course, the student will be able to:
Describe and explain basic life (biology), physical (chemistry/physics), and earth science (geology) concepts relevant to energy science. Design and implement experiments using investigative processes in energy science.
Use computers and related technologies to gather and analyze data.
Interpret and present data using quantitative reasoning including graphs, tables, and charts from scientific literature and hands-on scientific investigations. Work in small groups to solve complex problems relevant to energy science.
Form opinions based on scientific evidence and defend positions using both written and oral methods.
IEM 330. Geopolitics of Fossil Fuels (5). Critical analysis of the geopolitical characteristics of fossil fuels. Course draws upon policy, historical data, production and consumption patterns, and political processes to understand the relationship between fossil fuels and geopolitical processes around the world. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:

Identify, analyze and evaluate past, present, and likely future developments in global, national, and local energy issues resulting from geopolitical changes. Analyze the uneven distribution of fossil fuels around the world and discuss how their exploitation affects social groups in different ways based on diversity, inequality, privilege, or political power from a critical perspective. Define geopolitical concepts that relate to fossil fuel energy systems and demonstrate an understanding of the processes required to become an active participant in the economy, politics, and the environment at a global scale.
Asses significant energy resource issues and identify social, cultural, economic, historic, environmental, or political factors of concern regarding production, transportation, transformation, and consumption of fossil fuels globally.
Write, research, analyze, and present on any complex global energy problems that address themes covered in class. Explain the different strategies used by petro-states to influence political decisions and propose ways in which the impacts of these strategies affect society locally, regionally, and globally.
IEM 396. Individual Study (1-6). May be repeated if subject is different.
IEM 397. Honors (1-12). Prerequisite: admission to department honors program.
IEM 398. Special Topics (16).

IEM 399. Seminar (1-5).
IEM 489. Integrated Energy Management Capstone (2).
Capstone course designed to assess student's mastering of fundamental knowledge of energy management through a submission of a portfolio of work collected throughout the program. Exploration of future opportunities and exit interview with program
director. Grade will be S or U . Prerequisite: admitted to integrated energy management major with senior standing. Upon successful completion of this course, the student will be able to:
Illustrate through familiarity with the discipline's vocabulary, concepts and themes, and the complexity of energy systems, energy resources, and politicaleconomic processes. Define and discuss historical and contemporary energy problems, policies, and processes in the field. Identify the patterns created through the interactions between human processes and energy systems (i.e. production, distribution, petrochemical transformations, and consumption) and the manner in which political and economic processes shape nature and society. Analyze the value of an interdisciplinary approach to analyze the social, political, economic, and environmental implications of energy systems and energy transition in the world.
Identify professional opportunities and prospects for energy managers.
IEM 490. Cooperative Education (1-12). A preprofessional apprenticeship. An individualized field experience with energy companies and relevant governmental and nongovernmental organizations to develop basic and advanced skills in energy management. The course involves a student learning plan, cooperating employer supervision, and faculty coordination. Prerequisite: by permission of director of the institute for integrated energy studies.
IEM 496. Individual Study (1-6).
IEM 497. Honors (1-12). Prerequisite: admission to department honors program. IEM 498. Special Topics (16).

IEM 499. Seminar (1-5). May
be repeated if subject is different.
INTL 110. Agriculture (1-
12). Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 115. Business or
Management (1-12). Offered only in university-approved, study-abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 120. Education (1-12).
Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 125. Engineering (112). Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 130. Fine or Applied Arts (1-12). Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 135. Foreign
Languages (1-12). Offered only in university-approved, study-abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 140. Health Sciences (1-12). May be repeated for credit under different subtitle. Offered only in universityapproved, study-
abroad/exchange programs. Courses may be offered under different subtitle.
INTL 145. Humanities (1-12). Offered only in universityapproved, study-
abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 150. Law (1-12). Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 155. Math or Computer Sciences (1-12). Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 160. Physical or Life
Sciences (1-12). Offered only in university-approved, studyabroad/exchange programs.
Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 165. Social Sciences (112). Offered only in universityapproved, study-
abroad/exchange programs.
Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 198. Special Topics (16).

INTL 210. Agriculture (1-
12). Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 215. Business or Management (1-12). Offered only in university-approved, study-abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle.
INTL 220. Education (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.

INTL 225. Engineering (1-
12). Offered only in universityapproved, study-
abroad/exchange programs.
May be repeated for credit
under different subtitle.
INTL 230. Fine or Applied Arts (1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 235. Foreign Languages (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.

## INTL 240. Health Sciences

(1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 245. Humanities (1-12).
May be repeated for credit under different subtitle. Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 250. Law (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.

## INTL 255. Math or

Computer Sciences (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 260. Physical or Life Sciences (1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 265. Social Sciences (112). Offered only in universityapproved, study-
abroad/exchange programs. May be repeated for credit under different subtitle.
INTL 290. Cooperative Education (1-5). May be repeated for credit under
different subtitle. Grade will either be $S$ or $U$. Internship credit offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 298. Special Topics (16).

INTL 299. Seminar (1-5).
May be repeated if subject is different.
INTL 310. Agriculture (112). Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 315. Business or Management (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 320. Education (1-12).
May be repeated for credit under different subtitle. Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 330. Fine or Applied Arts (1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle. INTL 335. Foreign Languages (1-12). Offered only in university-approved, study-abroad/exchange programs. May be repeated for credit under different subtitle.
INTL 340. Health Sciences
(1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 345. Humanities (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 350. Law (1-12).
Offered only in universityapproved, studyabroad/exchange programs.

May be repeated for credit under different subtitle.
INTL 355. Math or Computer Sciences (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 360. Physical or Life Sciences (1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 365. Social Sciences (112). Offered only in universityapproved, study-
abroad/exchange programs.
May be repeated for credit under different subtitle.
INTL 396. Individual Study (1-6). May be repeated if subject is different.
INTL 397. Honors (1-12). Prerequisite: admission to department honors program.
INTL 398. Special Topics (16).

INTL 399. Seminar (1-5).
May be repeated if subject is different.
INTL 410. Agriculture (112). Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 415. Business or Management (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 420. Education (1-12).
Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 421. Student Teaching
Abroad (16). Course is available for overseas student teaching placements through an approved CWU program. Course may substitute for CWU student teaching requirement with prior permission of director of field experiences only. Department
consent. Grade will either be S or U .
INTL 425. Engineering (1-
12). May be repeated for credit under different subtitle.
Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 430. Fine or Applied Arts (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 435. Foreign Languages (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 440. Health Sciences
(1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 445. Humanities (1-12).
May be repeated for credit under different subtitle. Offered only in universityapproved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 450. Law (1-12). May be repeated for credit under different subtitle. Offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different subtitle.
INTL 455. Math or Computer Sciences (1-12). Offered only in universityapproved, studyabroad/exchange programs. May be repeated for credit under different subtitle. INTL 460. Physical or Life Sciences (1-12). Offered only in university-approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 465. Social Sciences (1-
12). Offered only in university-
approved, studyabroad/exchange programs. May be repeated for credit under different subtitle.
INTL 490. Cooperative Education (1-12). Internship credit offered only in university-approved, studyabroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different subtitle. Grade will either be S or U .
INTL 496. Individual Study
(1-6). May be repeated if subject is different.
INTL 497. Honors (1-12).
Prerequisite: admission to department honors program. INTL 498. Special Topics (16).

INTL 499. Seminar (1-5).
May be repeated if subject is different.
IS 200. Introduction to Individual Studies (1). This course provides an introduction to the individual studies major. Students will learn the parameters for completing a individual studies degree and will develop their learning goals and course of study under the guidance of a faculty advisor. By permission. Grade will be S or U .
Upon successful completion of this course, the student will be able to:
Articulate individual learning goals to be accomplished through the Individual Studies degree program.
Design an individual course of study leading to the
accomplishment of the individual learning goals. Create a title for their Individual Studies degree consistent with their course of study.
IS 298. Special Topics (1-6).
IS 396. Individual Study (1-
6). May be repeated if subject is different.
IS 397. Honors (1-12).
Prerequisite: admission to
department honors program.
IS 398. Special Topics (1-6).
May be repeated if subject is different.

IS 399. Seminar (1-5). May be repeated if subject is different.
IS 487. End-of-Program
Assessment (1). This course will assist students in preparing their goal attainment portfolio. The final portfolio will be evaluated. Grade will either be S or U. Prerequisite: IS 200 and admission to the individual studies major.
Upon successful completion of this course, the student will be able to:
Assess one's own progress toward the learning goals of the major and provide the university with program assessment feedback.
Prepare for academic or career future alternatives, job interview, and/or graduate school application. Integrate documents representing skills learned as an Individual Studies major.
IS 496. Individual Study (16).

IS 497. Honors (1-12).
Prerequisite: admission to department honors program.
IS 498. Special Topics (1-6).
IS 499. Seminar (1-5). May be repeated if subject is different.

## IT 101. Computer

Applications (3). Basic skills in Windows, word processing, spreadsheets, databases, and presentations. Basic Skills 6 Computer Fundamentals.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of Microsoft Word
Demonstrate an understanding of Microsoft Excel
Demonstrate an understanding of Microsoft Access
Demonstrate an understanding of The Internet
IT 105. Protecting Your
Online Identity (4). This
course will expose students to the potential threats being thrust upon them daily by simply using the Internet and how to neutralize or greatly reduce these risks. Course will be offered every year (Fall, Winter, Spring, Summer).

Upon successful completion of this course, the student will be able to:
Define the term "Online Identity" and analyze its influence on the Internet, social media, and society. Analyze the threats posed by social engineering attacks Describe the importance of sanitizing and disposal of electronic devices and physical media when no longer needed Implement Security Measures to secure online activities both at home and while traveling. Identify and evaluate the various types of malicious attacks and measures to protect against them.
Apply statistical quantitative reasoning to evaluate the possible impact of the Internet of Things (IOT) on a person's online identity as a result of increased manufacturing of various types of IOT devices in the U.S. and globally. Construct a data recovery plan for electronic devices to recover/restore data in the event a device is destroyed, lost, or rendered useless by malware or viruses or to restore control of a hacked online account.

## IT 111. Your Digital <br> Footprint and the Web (4).

 Examines impact of online activities on personal, academic, and professional lives, plus the global impact of technology and our interactions with that technology. Maintain and leverage digital footprints, critically evaluate online content, and cultivate eprofessionalism. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:Demonstrate a basic understanding of fundamental concepts in global technologies including the internet, the world wide web (WWW), social media, and how we create and maintain our online personas.

Demonstrate knowledge of the scholarly and creative methods used within information technology to shape, curate, and protect a person's digital footprint.
Identify, evaluate, and articulate underlying global, national, local, and personal issues that arise from common digital activities such as posting on social media, online research, the proliferation of fake news sites, and online activism.
Apply statistical quantitative reasoning to evaluate the validity of online information and its impact.
Explore and analyze local-toglobal dynamics of online communications and the impact of one of the largest interdependent global systems, the internet, as they relate to the contemporary world. Topics to include the impact of bringing internet access into developing countries, net neutrality, intellectual property rights, and decentralization of control over the internet and WWW systems.
Articulate issues and processes from our online activities that cross international boundaries and impact our lives on all levels from the personal to the global.
Formulate questions on possible issues from our online activities and personas, and address them through technological solutions. Explore research methods and information resources available to assist students in evaluating online sources, building their online professional persona, and developing the skills to stay current and informed on emerging technologies.
IT 165. Seeing Through the
Data (4). This class examines the influence of big data on social media, the internet, and society. Students will acquire data sets, analyze them using basic statistical tools, and be able to present data-driven, validated results. Course will
be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Define big data and analyze its influence on the internet, social media and society.
Describe sources and formats
of data and how it can be prepared for analysis. Implement quantitative strategies to use data for optimization, forecasting, classification, and prediction. Evaluate the quality and validity of data used to support a claim or argument. Construct and deliver effective presentations of data-informed conclusions to a specific audience.
IT 204. Word Processing Applications (Put on reserve as of $9 / 16 / 15$.) (3). Developing microcomputer wordprocessing skills for producing business documents. Not intended for ITAM majors. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18. Prerequisites: IT 101 or CS 101.

Upon successful completion of this course, the student will be able to:
Create and edit documents
Create a research paper
Create a resume and cover letter
Create a table, chart, and watermark
Create form letters, labels, and directories (merge)
Create a professional newsletter
Create an online form

## IT 228. New Innovations in

 IT (2). Exploring information technology principles, practices, and applications in contemporary society. Formerly IT 388, students may not receive credit for botth. Upon successful completion of this course, the student will be able to:Describe information technology terminology, concepts, and innovations.

Recognize emerging information technology hardware and software tools. Demonstrate an understanding of current social, consumer, and commercial issues in information technology.
IT 238. Introduction to
Cyberwarfare (4). This course explores the threats to national security posed by the use of cyberattacks by nation-states and terrorist groups against information and communication systems. Course will be offered every year (Fall, Winter, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Explain the fundamental concepts of cybersecurity
Describe the steps of an advanced cyberattack between nation-states.
Categorize cyberattacks according to their specific effects on their targets and overall effects on national security.
Apply knowledge of past cyberattacks to predict future threats to individuals, organizations and national security
Distinguish the current roles of the private sector and the government in protecting the US national security from cyberattacks.
Analyze proposals for further efforts to protect US national security from cyberattacks
IT 248. Web Fundamentals
(4). Development of web pages and internet skills for business, education, and training environments.
Upon successful completion of this course, the student will be able to:
Demonstrate the application and understanding of website planning, scaling, and site specifications
Demonstrate the application and understanding of fundamental CSS concepts including but not limited to style selectors, style properties, and pseudo-classes

Demonstrate the ability to set up and connect a website's local and remote folders for creation and publication of a site
Demonstrate the application of basic visual design when creating content for display on the Web including but not limited to color, scale, symmetry, proportion, and shape
Demonstrate an understanding
of User Interface design when
building simple web pages Demonstrate the application and understanding of web site construction using basic HTML code to create the structure of web pages
IT 258. Spreadsheet
Applications (3). Developing spreadsheets for business and workplace environments. Not intended for ITAM majors. Formerly ADMG 358 and IT 358. Students may not receive credit for both. Prerequisites: IT 101 or CS 101.
IT 260. Integrated
Information Technology
Application Projects (5).
Developing word processing, spreadsheets, database, and presentation skills to create integrated projects for business and workplace environments. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: IT 101 or CS 101.
Upon successful completion of this course, the student will be able to:
Prepare word processing documents that demonstrate the interpretation of specific application terminology, advanced application skills, and critical thinking skills. Prepare spreadsheets that demonstrate the interpretation of specific application terminology, advanced application skills, and critical thinking skills.
Prepare and query relational databases that demonstrate the interpretation of specific application terminology, advanced application skills, and critical thinking skills.

Integrate documents, worksheets, and databases for the purpose of presenting information.

## IT 268. Database

Applications (Put on reserve as of $9 / 16 / 15$.) (3). Develop databases for business and workplace environments. Not intended for ITAM majors. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisites: IT 101 or CS 101.

Upon successful completion of this course, the student will be able to:
Use specialized vocabulary related to personal database publications
Create a database and the accompanying tables, forms, reports, and switchboards Write simple macros to automate tasks in a database Write queries to extract information from tables Create relationships between tables
IT 288. Business Presentation
Applications (2). Develop multimedia graphic presentations for business and workplace environments. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Use software and storytelling tools for presenting ideas on a virtual canvas.
Use interactive portable documents across platforms. Use content management systems for presentations. Use internet conferencing systems.
IT 298. Special Topics (1-6).
IT 299. Seminar (1-5). May
be repeated if subject is different.
IT 301. Information Technology Security, Privacy, and Ethics (3). Examination of information technology security and privacy issues in the context of law and ethics. Prerequisite: junior standing or above.

Upon successful completion of this course, the student will be able to:
Identify and recall key information technology security, privacy and legal terminology and concepts. Identify and describe information technology organizational security structure and security issues. Review and analysis of legal and ethical issues related to information technology security and privacy. Formulate reasoned opinions regarding information technology security and privacy based on legal precedents.
Create a formal security policy
for an organization.
Develop an acceptable usage policy.
IT 312. Advanced
Application of Web Tools (4).
Advance website construction and design using contemporary tools and techniques.
Prerequisite: IT 248.
Upon successful completion of this course, the student will be able to:
Explain vector based graphics and multimedia formats.
Apply advanced HTML and
CSS concepts.
Apply basic elements and principles of design to web sites
Explain site planning, scaling, and site specifications.
Demonstrate responsive design techniques for cross-media and cross-platform graphic applications using CSS. Publish multipage web sites using a remote web server.
IT 322. Innovative Design in Web (4). Design and implementation of the information technology infrastructure needed to operate a business Web site. Prerequisite: IT 312.
Upon successful completion of this course, the student will be able to:
Explain site planning, scaling, and site specifications
Create original working code based in HTML

Employ CSS for formatting text elements
Employ CSS for page layout Apply jQuery/Ajax components on a page, both with and without XML data Incorporate XML data (including linked and graphic) in a webpage
Create and publish web pages that use linked external CSS style sheets
Read and reconfigure or repurpose existing HTML and CSS code
IT 336. Digital Forensics (4).
Students will learn skills in digital forensics including how to analyze a device, retrieve
"deleted" information, and methods of digital concealment. Prerequisites: IT 238 and IT 351.
Upon successful completion of this course, the student will be able to:
Identify the relevant processes, objectives, and goals of digital forensics.
Discuss the legal ramifications of digital forensics investigations.
Assess the tools and procedures necessary to investigate and evaluate a perpetrator's computer assets from a digital forensics perspective. Analyze digital concealment and recovery techniques and related technologies including hardware, software, and networked computers and systems.
Utilize digital concealment and recovery techniques and related technologies.
IT 338. Cybercrime (4). Investigate vulnerability of computer networks, systems, and computer applications. Learn methods of mitigation and/or prevention of cybercrime. Attributes of cybercrime such as virus attacks, identity theft, electronic funds transfers, and phishing will be examined. Prerequisites: IT 238 and IT 351.

Upon successful completion of this course, the student will be able to:
Identify the various attributes of cybercrime to include hacking, denial of service attacks, cyberstalking, cyberbullying, virus attacks, identity theft, electronic funds transfers, phishing, spoofing, internet fraud and similar attributes.
Investigate the vulnerability of computer applications, networks, and systems in terms of computer intrusions and attacks.
Analyze the impact of cybercrime (social, economic, and legal).
Discuss methods of the mitigation and/or prevention of cybercrime.
Utilize tools and procedures to include hardware and/or software to mitigate cybercrime.
Discuss the legal ramifications of cybercrime on individuals, organizations, and society.
IT 351. Computer Networks
(4). Computer network communications including LAN and WAN Topologies, Protocols and Services, such as TCP/IP, and Ethernet, within the context of the OSI Reference Model. Formerly IT 452, students may not receive credit for both. Prerequisite: junior standing or above. Upon successful completion of this course, the student will be able to:
Define fundamental networking concepts, components, and functions and the three basic network designs Describe how network components are linked either by physical media such as cable or by wireless methods such as infrared or radio transmissions Explain the theoretical structure which forms the foundation of all network activity (OSI model) Identify the different network components such as drivers, packets, and protocols

Explain how the access methods control the flow of data across the network Describe the major components, features, and functions of the primary network architectures or layouts
Describe the operating system, applications, utilities, and special languages that make it possible for networks to provide the services they do. (Client/Server)
Explain what is involved in managing and supporting a network in its day-to-day functions of providing services to its users
Describe how networks grow from a LAN into larger WAN' s
Describe how to manage a network to keep it running smoothly
IT 359. Advanced
Spreadsheet Applications (4).
Advanced spreadsheets for business applications such as design of multiple sheet workbooks and templates, advanced functions and formulas, enhanced formats, lists, and pivot tables. Prerequisites: IT 258 or IT 260. Upon successful completion of this course, the student will be able to:
Construct simple and compound statements and selected functions.
Examine lists, data filters and subtotals.
Employ macros.
Apply What if analysis, goal seek, forecasts.
Analyze data with Pivot Tables and Pivot Charts.
Demonstrate the application of common statistical methods using spreadsheet formulas.

## IT 362. Wireless

Communications (4). Broad
introduction to wireless communications. Provides students with an exposure to a variety of technologies, standards, and concepts. Prerequisite: IT 351.
Upon successful completion of this course, the student will be able to:

Describe wireless
communications: how it works, how it is used, its advantages and disadvantage
Contrast and compare radio and infrared wireless communication: models, transmission and standards Describe, explain, configure, and troubleshoot short range wireless communications Identify, troubleshoot, and correct Wireless Local Area Networks and associated protocols
Plan and conduct a wireless site survey to evaluate wireless network design for optimum coverage
Describe and explain digital Cellular Telephone
Applications, Technology and Client software
Describe and explain fixed broadband wireless and satellite communication Identify, describe, and explain the uses and challenges of wireless communications in business
Describe, explain, configure, and troubleshoot wireless network security
IT 363. Data Mining for IT
Managers (4). Students will learn to extract data, apply learning methods, and prepare data for further analysis. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: IT 359.
Upon successful completion of this course, the student will be able to:
Explain the procedures involved in extracting useful data from multiple sources in an IT Management context. Differentiate between intelligence and analytics and describe the role of each in data-driven decision making. Explain various supervised learning methods that can be used to derive meaning from trained data sets in an IT Management context.
Explain various unsupervised learning methods that can be used to derive meaning from
large sets in an IT Management context.
Identify the best tools to apply to data sets to prepare them for analysis in an IT Management context.

## IT 365. Data Driven

Innovation (4). Introduction to data analysis techniques that enables real-time decision making in IT organizations. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: IT 363.
Upon successful completion of this course, the student will be able to:
Explain the role of machine learning in data mining Apply models and algorithms as used in data mining techniques
Analyze the value of data mining techniques used in the information technology field Evaluate visualization techniques used in data mining IT 370. The Command Line Interface and Cybersecurity
(4). This course provides an introduction to the cybersecurity script programming paradigm, and introduces and compares a range of security scripting languages used for Linux and Web-based applications. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: IT 238 and IT 351.

Upon successful completion of this course, the student will be able to:
Utilize looping and selection statements.
Utilize truth tables in the evaluation of conditions. Construct a script that will help secure a system. Evaluate a script for security vulnerabilities.
IT 376. Project Management and Information Technology
(3). IT project management with a focus on facilitating project management areas; risk management, procurement management, HR management, and communication
management. Microsoft Project will be used. Prerequisite: students must be junior standing or above.
IT 381. Web Apps for M-
Commerce (4). This course
will introduce concepts in developing business web apps for use in m-commerce. Web apps review and development using web app
authoring/application software for various operating systems. Prerequisite: IT 322.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of web app planning, scaling, and specifications.
Document web app goals, requirements and internal specifications.
Demonstrate the ability to create original working web apps.
Demonstrate an understanding of native web apps for multiple OS.
Create simple
dynamic/interactive mcommerce web apps.
IT 396. Individual Study (1-
6). May be repeated if subject
is different.
IT 397. Honors (1-12).
Prerequisite: admission to
department honors program.
IT 398. Special Topics (1-6).
IT 399. Seminar (1-5). May
be repeated if subject is different.
IT 425. Reporting Data and
Analytics (4). Skills and applications in pre-processing and preparing as well as presenting and reporting data for further analysis. Prerequisite: IT 365. Upon successful completion of this course, the student will be able to:
Apply push and pull approaches to analytics reporting.
Interpret information about people in organizations in terms of its usefulness in strategic process decisions. Construct actionable information by using tools to process large data sets.

Evaluate potential solutions based on analytics data.
Justify recommendations using data mining and analytics appropriate for a client-based environment.
IT 426. Application of Web
Languages (4). Web languages
for the non-computer science
student. Prerequisite: IT 322.
Upon successful completion of
this course, the student will be able to:
Select appropriate languages to accomplish specific tasks on a Website
Document site goals, requirements and internal specifications Conduct an informal usability test of a Website Explain how browser compatibility can determine functionality of your site Choose an appropriate platform for site development Design site architecture that includes appropriate security considerations
Identify key components in development and testing
Evaluate and use new
technologies for use in a
Website including XHTML,
CSS, XML, Spry and Ajax
Plan and budget for the continued maintenance of a site Create a plan for implementation of a medium sized site
Create a working site
IT 428. Web Applications
(Put on reserve 9/16/17) (4).
Web application design using
Web software such as
Dreamweaver, Fireworks, and
Flash. (Put on reserve 9/16/17.
Will go inactive $8 / 24 / 2020$.)
Prerequisite: IT 322.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of site planning, scaling, and
site specifications
Demonstrate the ability to create original working code based in ActionScript 3 Demonstrate the ability to create and use Classic, Motion and Shape tweens in Flash

Demonstrate the application of ActionScript/MXML built-in functions
Demonstrate an understanding of User Interface design when building Rich Internet
Applications
Demonstrate the ability to
create and publish Rich
Internet Applications in Flash and Flex
Demonstrate the ability to create and publish Rich
Internet Applications that make use of XML data
Demonstrate the ability to read and reconfigure or repurpose existing code
IT 436. Cyberattack/Defense
(4). Examines the techniques and technologies for penetration of networks, detection of attacks, and the prevention of attacks. This
course addresses the techniques, technologies, and methodologies used by cyberintruders. Prerequisites: IT 238 and IT 351.
Upon successful completion of this course, the student will be able to:
Identify the major components of the cyber-attack/defense domain.
Investigate cyber deterrence capabilities.
Investigate reconstitution and robustness capabilities designed to enable U.S. systems to continue to function once they have suffered cyber damage.
Assess tools and procedures to include hardware and/or software to simulate an attack on an adversary.
Utilize tools and procedures to include hardware and/or software to simulate an attack on an adversary.
Discuss the implications societally, socially, legally, and technologically, of cyberattacks on an entity.
IT 437. Mobile and Cloud Forensics (4). Students will learn skills in mobile and cloud forensics including how to analyze a mobile device, retrieve "deleted" information, recover information from the
cloud environment and methods of digital concealment. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: IT 336. Upon successful completion of this course, the student will be able to:
Appraise a given scenario, and then choose the correct digital forensic tool and technique for that scenario.
Prepare a cloud forensics case using the tools provided in the text and other research areas. Prepare a mobile digital forensics report after being provided the scenario and necessary tools to include software.
Demonstrate the understanding of digital forensics in situations where the device is an IoT, Mobile Device, Cloud environment or standard desktop environment.
IT 438. IT Risk Management
(4). Explores Networking Security from the perspective of risk management to develop strategies to mitigate and manage risks. Focuses on assessment strategies for effective mitigation measures and risk management practices in terms of cybersecurity. Prerequisites: IT 238 and IT 351.

Upon successful completion of this course, the student will be able to:
Identify risk assessment strategies requisite to implement risk mitigation measures and practices. Identify the levels of sensitivity of information kept by an organization and the procedures necessary to protect it.
Examine the tools and procedures utilized by attackers to infiltrate an organization's infrastructure in order to obtain sensitive information.
Develop an effective risk management plan for organizations of various sizes, compositions, and industries.

Construct a disaster recovery plan for organizations of various sizes, compositions, and industries.
Discuss the legal ramifications in the risk management arena from an IT perspective.
IT 456. Advanced Computer Network Management (4).
Students will analyze network requirements, design network infrastructures, and install, configure and maintain routing and switching equipment. Prerequisite: IT 351.
Upon successful completion of this course, the student will be able to:
Define the purpose of routing and switching
Identify the principles of network design
Design a switched network Install, configure, \& manage routing and switching equipment
Load multiple protocols and be able to differentiate between routing and routed protocols

## IT 459. Workstation

Administration (4).
Implementation, administration, and troubleshooting workstations as a desktop operating system in any network environment. Prerequisite: IT 351.
Upon successful completion of this course, the student will be able to:
Install A Workstation
Networking Software
Implement and conduct administration of resources Implement manage, and troubleshoot hardware devices, and drivers
Monitor and optimize system performance and reliability Configure and Troubleshoot the Desktop Environment Implement, Manage, and
Troubleshoot Network
Protocols and Services
Implement, Monitor, and
Troubleshoot Security
IT 461. Systems Analysis (4).
Feasibility studies of systems, cost analysis, budgets, and tools of systems analysis. Prerequisite: senior standing.

Upon successful completion of this course, the student will be able to:
Position system analysis in the development process Develop an understanding of the concepts of problem recognition and problem definition
Use tools like PIECES framework
Explain in detail the individual phases of the SDLC, along with the expected activities and deliverables from each Identify and select IS projects Gather and organize end users' requirements
Read, correct, and create data flow diagrams (DFD) Read, correct, and create entity relationship diagrams (ERO) Perform basic project management tasks associated with scope, time and budget Understand ERO extensions Create logical and relational models
Write a system proposal Understand the basic elements of other analysis methods like object oriented analysis or rapid application development Understand the job of system analyst
Work effectively in a pair Follow a process to solve organizational problems
Write better
IT 462. Systems Design (Put on reserve as of $\mathbf{9 / 1 6 / 1 5}$.) (4). Analyze office information systems through selected analysis tools and procedures. Students will apply this knowledge by designing improved systems. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisite: IT 461.
Upon successful completion of this course, the student will be able to:
Describe the role of a change agent
Describe how people deal with change
Explain the four elements of organization structure
Describe the budget process Describe the four scales used to develop questionnaires

Diagram an information
system
Calculate a projects financial worth
Prepare a project design of a new system
Use project management tools
IT 463. Computer Network
Management (4). Develop and
improve network
administration and
management skills within a
network server environment.
Prerequisite: IT 351.
Upon successful completion of this course, the student will be able to:
Install Windows 2000 Server
Install, Configure, and
Troubleshoot Access to
Resources
Configure and Troubleshoot
Hardware Devices and Drivers
Manage, monitor, and optimize
system performance,
reliability, and availability
Manage, configure, and troubleshoot storage use Configure and Troubleshoot
Network Connections Implement, monitor, and troubleshoot security
IT 464. Directory Services
(4). Students will plan, implement, and maintain directory service features including forests, sites, domains, and organizational units to meet network accessibility, performance, and security goals. Prerequisite: IT 463.

Upon successful completion of this course, the student will be able to:
Evaluate network traffic when planning and creating global catalog servers Improve network efficiency and performance using operations master roles Implement a directory service forest and domain structure
Manage forest and domain structure
Monitor, diagnose and restore directory services
Identify security issues and plan an effective strategy for dealing with those issues
Plan and implement a strategy for configuring user and
computer environments using Group Policy
Maintain installed software using Group Policy
IT 465. Messaging Service
(Put on Reserve 9/16/16.) (4).
Provides students with the knowledge and skills needed to install and support a reliable, secure e-mail messaging infrastructure in a medium-to large-sized ( 250 to 5,000 users) corporate environment. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Prerequisite: IT 463. Upon successful completion of this course, the student will be able to:
Identify and recall key messaging services terminology and concepts Identify, plan and configure messaging services infrastructure and integration components
Configure and manage Simple
Mail Transfer Protocol
(SMTP) messaging services components
Configure security and fault tolerance components for messaging services Identify and implement monitoring and maintenance components for messaging services
Identify and troubleshoot messaging services components, including server health, data storage, lusters and fault tolerance mechanisms
IT 466. Open Source Server Management (4). Open Source Server Management covers the concepts required for Linux/UNIX server system administration and common networking services configuration, operation, and management. Prerequisite: IT 459.

Upon successful completion of this course, the student will be able to:
Install, configure, \& manage a Linux server for network environments
Compare Linux administration from the command line shell with GUI based tools

Install, configure, and manage some of the more commonly used network services, (DHCP, DNS, LDAP, email)
Install, configure, and manage file and print services Install, configure, \& manage a Linux web server and associated services (http, ftp, php, mySQL)
Demonstrate best practices for secure server standards within a networked computing environment
IT 467. Network Security (4).
Analysis and design of computer network security in the business environment.
Prerequisite: IT 463.
Upon successful completion of this course, the student will be able to:
Analyze the existing and planned business model Analyze the existing and planned organizational structures
Analyze factors that influence company strategies
Analyze business and security
requirements for the end user
Analyze the structure of IT management
Analyze the current physical
model and information security model
Evaluate the company's existing and planned technical environment
Analyze the impact of the security design on the existing
and planned technical environment
Design a security baseline for a network
Identify the required level of
security for each resource
Design an audit policy
Design a delegation of authority strategy
Design a placement and inheritance of security policies
for sites, domains, and
organizational units
Design an Encrypting File
System strategy
Design an authentication strategy

## IT 468. Projects in Database

(4). Techniques in database design and management.
Prerequisite: IT 260 or IT 268.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of terminology used in
database management
Demonstrate an understanding of relational models
Demonstrate an understanding of QBE and SOL
Demonstrate an understanding of Normalization
Demonstrate an understanding
of Database Design
Demonstrate an understanding
of Database Administration
IT 469. Enterprise Database
Systems: SQL (4). Students
will learn to write SQL
statements, basic database
administration, and report
writing skills. Course will be offered every year. Course will not have an established
scheduling pattern.
Prerequisite: IT 468.
Upon successful completion of this course, the student will be able to:
Manipulate a database on paper
prior to working in SQL
Examine concepts and terminology associated with relational databases.
Use SQL to query a database, discussing the use of simple and compound conditions; computed columns; the SQL operators BETWEEN, LIKE, and IN; SQL functions; nesting queries; grouping data; and retrieving columns with null values.
Use queries to join multiple tables, discussing the SQL operators IN and EXIST, SQL set operations, and the use of the ALL and ANY operators.
Apply specific SQL
commands, including
COMMIT, ROLLBACK, UPDATE, INSERT, and
DELETE commands to update table data.
Use procedural code to write stored programs, including the use of transactions and locking.

## IT 470. Database and the

Web Capstone (4). Provides a
culminating experience for students in the Web and
Database specialization; giving
the students an opportunity to use knowledge from their specialization courses to develop a data-driven website, to include the associated database. Course will be offered every year (Spring). Corequisite: IT 426.
Prerequisite: IT 468
Upon successful completion of this course, the student will be able to:
Develop a data-driven website Connect to a database from within a script
Use SQL from within a script
to query a database
Use a script to build dynamic web pages
Use a MVC architectural design pattern for a website
IT 481. Quality Verification and Validation (4). System quality improvement through reviews, testing, and quality management. Prerequisite: IT 461.

Upon successful completion of this course, the student will be able to:
Explain the aspects of quality assurance with particular focus on managing reviews and tests. Define the roles of developer, peer reviewer, and tester, and describe their interactions on a successful project.
Define the stages and types of review and testing in system development.
Demonstrate the inputs, deliverables, and flows of the testing process.
Develop and implement a test plan, mining system specifications for useful test cases.
Apply an accepted document review technique for verification.
Deploy and utilize an effective automated testing tool.
Apply a suite of systems testing techniques for system validation.
Apply effective acceptance testing techniques for approval of delivery.
Manage defects for quality improvement.
IT 482. Cybersecurity
Capstone (4). This course is to
provide a culminating experience for students in the cybersecurity specializations. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: IT 336 and IT 338 and IT 436 and IT 438. Upon successful completion of this course, the student will be able to:
Given a scenario, students will use risk-assessment techniques to prioritize the defense of a given set of information assets. Determine and implement the appropriate defensive mechanisms to protect the information assets. Use various attack vectors to test the defensive mechanisms. Use various digital forensics techniques to assess the effectiveness of their defensive mechanisms and to witness what data was breached. IT 483. Applied Predictive Analytics for IT Managers (4). Students will utilize the skills gained in the previous data and analytics courses for practical application to realworld IT problems. Course will be offered every year. Course will not have an established scheduling pattern. Pre or corequisites: IT 425 and IT 469. Upon successful completion of this course, the student will be able to:
Explain the processes involved in mining, analyzing, and reporting on varied data sets in an IT Management context. Consider how predictive models can be used with large datasets to drive meaning from the data.
Explain how predictive analytics can be utilized to support strategy in an IT Management context. Apply critical thinking strategies to predictive analytics in an IT Management context.
Provide a cursory explanation of artificial intelligence (AI) and its likely impact on innovation and IT.
IT 486. Critical Issues in Information Technology (4).

This seminar format and case study course is intended to expose pre-graduation IT seniors to a variety of topics pertaining to the IT industry. Prerequisites: IT 301 and senior standing. Upon successful completion of this course, the student will be able to:
Demonstrate current knowledge of managerial, corporate and global IT issues Synthesize current knowledge and apply solutions to solve current managerial, corporate and global IT issues Demonstrate the ability to think critically in the context of critical IT issues Incorporate technology into presentations dealing with critical issues
IT 487. Networking Capstone
(4). This course will provide a culminating experience for students in the Networking specialization. This projectbased course will provide the students the opportunity to use knowledge from their specialization courses to build a fully-functional, heterogeneous network. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: IT 362 and IT 466 and IT 467.
Upon successful completion of this course, the student will be able to: Design and implement a network that is suitable for a small business that has at least two sites
Implement all infrastructure components on the network (DNS, AD, DHCP, etc.) Implement firewalls on the network
Secure the network
IT 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty
coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: RMT 379.
IT 491. Workshop (1-6).
IT 496. Individual Study (16).

IT 496. Individual Study (1-
6). May be repeated if subject is different.
IT 497. Honors (1-12).
Prerequisite: admission to department honors program.
IT 498. Special Topics (1-6).
IT 499. Seminar (1-5).
IT 493A. Undergraduate
Research Practicum (Put on
reserve as of $9 / 16 / 15$.) (1-3).
Conduct research under direct supervision of a professor with specific learning agreement required. Department requirements must be met. ADMG/IT/RMT 493A are cross-listed courses; students may not receive credit for both. May be repeated for a total of 3 credits. Grade will either be S or U. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:
Create in conjunction with a professor a specific learning agreement regarding the research to be completed. Develop a research proposal. Conduct historic, descriptive, correlational, or experimental research studies including instrument development, data collection, data analysis, research conclusions, and research recommendations. Write a research report.

## JAPN 151. First-year

Japanese (5). Conversational approach with intensive oralaural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence.
JAPN 152. First-year
Japanese (5). Conversational approach with intensive oralaural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence. Prerequisite: JAPN 151.

Upon successful completion of this course, the student will be able to:
Read and write both hiragana and katakana
Have mastered and be able to use a vocabulary of $250+$ words
Use particles in order to establish grammatical relationships between words Make simple declarative subject complement sentences Introduce yourself and others Discuss nationalities and languages
Discuss academic majors Describe and comment on objects, places and people using adjectives Refer to previously mentioned topics with pronominals Express location and existence
JAPN 153. First-year
Japanese (5). Conversational approach with intensive oralaural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence. Prerequisite: JAPN 152.
JAPN 251. Second-year
Japanese (5). Graduated readings in modern Japanese writings with discussion conducted in Japanese. Courses must be taken in sequence.

## JAPN 252. Second-year

Japanese (5). Graduated readings in modern Japanese writings with discussion conducted in Japanese. Courses must be taken in sequence. Prerequisite: JAPN 251.
JAPN 253. Second-year
Japanese (5). Graduated readings in modern Japanese writings with discussion conducted in Japanese. Courses must be taken in sequence. Prerequisite: JAPN 252.
JAPN 298. Special Topics (16).

JAPN 299. Seminar (1-5).
May be repeated if subject is different.

## JAPN 311. Manga and

 Anime: Japanese Visual Culture (5). This course is an introduction to Japanese popart forms, like manga, anime, and graphic novels. Instructionis in English, and the course is open to students of all disciplines. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Recognize, categorize, and outline the main historical and contemporary forms of Japanese visual culture, ie. Manga, Anime, Graphic Novels.
Identify and interpret popular and recurring themes in the texts and analyze them in their relation to their historical and geographical contexts. Relate and distinguish between the most significant changes over the last 300 years of Japanese popular graphic art forms, from the Edo Period through the present. Themes will be considered in terms of transition over this period. Translate emergent, real-time textual, video, and audio sources of Japanese popular cultures.
Identify and assess the presence of Japanese visual cultures as they appear in contemporary American culture.
JAPN 361. Composition, Grammar and Conversation
I (5). This is the first in a three part series of intermediate level
Japanese composition, grammar and conversation. Course must be taken in sequence. Prerequisite: JAPN 253. Declared Japanese majors and minors only.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of advanced vocabulary and grammatical structures. Demonstrate speaking and listening skills useful in culturally authentic Japanese situations. Will be able to engage in extended conversations in Japanese. Demonstrate the ability to read authentic materials in Japanese. In addition to readings in the textbook, the student will read
supplementary reading materials that cover a variety of topics.
Demonstrate improved writing skills and the ability to express opinions and ideas clearly in a manner appropriate to Japanese discursive conventions.
JAPN 362. Composition, Grammar and Conversation
II (5). This is the second in a three-part series of intermediate level Japanese composition, grammar and conversation. Courses must be taken in sequence. Prerequisite: JAPN 361. Declared Japanese majors and minors only. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of advanced vocabulary and grammatical structures building upon foundation of coursework iii. 361.
Demonstrate speaking and listening skills useful in culturally authentic Japanese situations.
Engage in extended conversations in Japanese. Expand the ability to read authentic materials in Japanese. Read supplementary reading materials that cover a variety of topics.
Further develop and improve writing skills and the ability to express opinions and ideas clearly in a manner appropriate to Japanese discursive conventions.
JAPN 363. Composition, Grammar and Conversation
III (5). This is the third in a three-part series of intermediate level Japanese composition, grammar and conversation. Courses must be taken in sequence. Prerequisite: JAPN 362. Declared Japanese majors and minors only. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of advanced vocabulary and grammatical structures building upon foundation of coursework in 361 and 362.

Demonstrate speaking and listening skills useful in culturally authentic Japanese situations.
Engage in extended conversations in Japanese. Expand the ability to read authentic materials in Japanese.
Read supplementary reading materials that cover a variety of topics.
Further develop and improve writing skills and the ability to express opinions and ideas clearly in a manner appropriate to Japanese discursive conventions.

## JAPN 396. Individual Study

(1-6). May be repeated if subject is different.
JAPN 397. Honors (1-12).
Prerequisite: admission to department honors program.
JAPN 398. Special Topics (16).

JAPN 399. Seminar (1-5) May be repeated if subject is different.
JAPN 442. Translation and
Interpretation (5). Translation
into English of Japanese
textual material drawn from a wide range of sources. Course will be offered on even numbered years (Spring) Prerequisite: JAPN 363. Upon successful completion of this course, the student will be able to:
Recognize common reference materials and tools (dictionaries, lexicons, online databases, etc.) used in translation of Japanese into English and choose the appropriate materials for subject matter in source language.
Recognize and differentiate among the most commonly read textual sources in Japanese culture and public opinion.
Compare and contrast salient features of Japanese orthographic change over the last 150 years.
Perform translation from Japanese to English at a level of accuracy commensurate with professional translator competency.

Apply translation theory to examples of translation
JAPN 462. Japanese Cinema
(5). An examination of the history, aesthetic achievements, major directors and themes, and cultural explorations of Japanese cinema. Includes close look at
Japan's leading auteur directors. Course will be offered on even numbered years (Spring)
Upon successful completion of this course, the student will be able to:
Summarize Japanese film history from the silent era to present day movies. Compare how the developing technology in film relates to the aesthetic sensibilities in Japanese culture. Evaluate the changing economic structure of the Japanese film industry. Assess the different genres, film grammar, and editing and lighting styles used in Japanese films.
Appraise their role as moviegoers and increase their ability to watch films critically. Examine how the tools of camera angles, lighting, editing and sound manipulate how we feel about a filmed subject.
JAPN 496. Individual Study (1-6).
JAPN 497. Honors (1-12).
Prerequisite: admission to department honors program.
JAPN 498. Special Topics (16).

JAPN 499. Seminar (1-5). May be repeated if subject is different.
LAJ 102. Introduction to Law and Justice (5). This course will focus on the role of law in society and will examine both the criminal and civil law system, as well as, the function of law in social change and social control. Course will be offered every year (Fall, Winter, Spring). SB-Perspectives on Cultures and Experiences of U.S. Upon successful completion of this course, the student will be able to:

Articulate the function and purpose of law in American society and compare the common law heritage with civil law systems in other countries
Describe the structure and function of state and federal courts and the role they play in American government Identify the legal concepts and apply this knowledge to civic and community issues Describe how legal doctrines have emerged, changed over time, and the implications of these changes in relation to diverse communities Explain how the law reflects consensus and conflict in society in relation to gender, race/ethnicity and class Develop personal views and perspectives on legal issues from relevant data and concepts

## LAJ 202. Policing in a

 Contemporary Society (5).An integrated academic foundation in the impact of police interaction with the functions of policing between individuals and society as they approach the problem of crime. Real-world issues will be analyzed. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Describe and explain the history, the philosophy, and the ethical considerations of policing and how it has evolved to meet the demands of our contemporary society In America.
Recall the different theories of policing such as the professional model and the community model and how society has influenced the changes policing has experienced. Generate a report based on one of seven assigned books which summarize the changes policing has evolved to in the last fifty years Predicting the changing future of policing and formulate the
challenges policing must face in its organizational structure and the understanding of conceptual models meeting the challenges of real world issues.
LAJ 203. Wildlife Law
Enforcement (5). An
intergrated study of natural resource management, through law enforcement and conservation. Focuses on the impact on wildlife sustainability through water and range management, regulations, and enforcement to protect our natural resources for future generations. Course will not have an established scheduling pattern (Spring). Upon successful completion of this course, the student will be able to:
Define the ways to improve our physical and natural world
and the role that Law
Enforcement will bolster these efforts.
Identify the relationship between environmental regulations and the wildlife management techniques used in setting seasons and bag limits
Participate in Lab Activity Three Field trips to surrounding area
LAJ 210. Latinos, Law and
Justice (4). This course
explores legal issues surrounding Latinos in contemporary society within wider issues of justice. It will examine experiences of Latinos within the legal system, including Latino contributions to law. Upon successful completion of this course, the student will be able to:
Compare legal, cultural, and social definitions of Latino identity
Discuss legal and justice issues
affecting Latinos in the USA
Locate Latinos at various stages of legal process
Describe ways in which Latinos have shaped the legal system
Explain how legal issues are connected to wider justice issues

## LAJ 215. Law in American

History (4). This course
explores the role of law in
American society from 1789 to
1939, including connections
between law and violence, economics, politics, culture, gender and ethnicity.
Upon successful completion of this course, the student will be able to:
Sketch major developments in the legal system
Interpret legal and literary documents
Locate legal history in wider social and cultural context
Explain how the national legal system developed from community activities Recognize leading themes in the historiography of law Apply theory and knowledge of past legal experiences to present discussions of law
LAJ 216. Race, Gender and
Justice (4). This course examines the role of race/ethnicity and gender in law and public policy with an emphasis on criminal justice. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Discuss theories concerning the role of race/ethnicity on law and policy. Identify the impact of government policies including judicial policy that have differential impacts across race/ethnicity and gender. Articulate how race/ethnicity and gender impacts various criminal justice outcomes and as well as how these intersect with other factors, including class.
Justify personal views on public law and policy issues that have a race/ethnicity and gender effects as based on research, theory, and personal experience. Engage in conversations about race/ethnicity, gender, and social justice as they apply to criminal justice issues and processes.

Compare and contrast personal and societal views in the context of criminal justice orally and in writing.
LAJ 298. Special Topics (1-
6). May be repeated if subject is different.
LAJ 299. Seminar (1-5). May be repeated if subject is different.
LAJ 300. Administration of Criminal Justice (4). The sources of police power and authority in a democratic society, the internal organization and administration of federal, state and local agencies, their interaction with each other, and with the communities they serve.

## LAJ 302. Criminal

Procedure (4). A review of guidelines for police arrest, search, interrogation, and identification procedures based upon rules of criminal procedure derived from the U.S. Constitution. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 303. Legal Research (4).
Techniques of legal research; the case system, statutes, court decisions, Shepardizing. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 311. Family Law (4).
Marriage, divorce, state regulation, custody, and care and supervision of children.
LAJ 300 is recommended.
LAJ 313. Introduction to
Criminal Law (4). Scope and nature of law; classification of offenses; act and intent; capacity to commit crime and defenses. Elements of major criminal statutes. LAJ 300 is recommended.
LAJ 316. Introduction to
Paralegal Studies (4). This course provides an introduction to paralegal studies. It provides analysis of the role of the paralegal and the tasks involved in being a paralegal including interviewing clients and witnesses, legal research, writing, legal writing, and
attending trials. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 317. Introduction to
Civil Practice (4). This course is designed to provide students with a comprehensive overview of civil litigation from investigation through discovery, trial, and appeal. LAJ 300 is recommended. Prerequisite: admission to the major or minor.

## LAJ 318. Introduction to

 Forensics (4). This course explores the subject matter and methods forensic investigators use when searching and recovering evidence from crime scenes.We examine approaches to forensics across multiple disciples including anthropology, biological sciences, chemistry, law and justice, geological sciences, physics, psychology, and sociology. The goal is to provide a broad overview for students interested in exploring forensic careers. ANTH 318 and LAJ 318 are crosslisted courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:Identify major developments in the history of forensic science Identify specialized fields which contribute to the forensic investigation Describe the ethical issues facing the forensic scientist Employ forensic examination and comparison techniques on evidence
Demonstrate procedures associated with crime scene processing
Demonstrate proficiency in writing
Summarize court decisions concerning scientific evidence Appraise current literature, materials and developments regarding scientific evidence LAJ 324. Correctional Law (4). This course examines transitions in prisoner civil rights since the U.S. Supreme Court ruled that inmates hold
all rights as other citizens with the exception of those necessarily taken by fact of incarceration. Constitutional issues will be analyzed, including standards for shelter and medical care, discipline, religion, and access to the courts. LAJ 300 is recommended.
LAJ 326. Correctional
Counseling (4). This course provides an analysis of the role of correctional counselor in rehabilitative efforts with offenders. Course focuses include criminal offender treatment methods and correctional or rehabilitative policy. LAJ 300 is recommended. Prerequisite: admission to the major or minor.

## LAJ 327. Community

Corrections (4). Maintaining, supervising, and counseling offenders in the communitybased setting. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 331. Investigation (4).
Function and propriety of investigations; methods of gathering evidence. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 332. Police Community
Relations (4). This course examines the relationship between the police and community and how to make this relationship a positive one. Analysis will be made of the history of police and friction with various groups in society. Attempts at positive police communication and community participation will also be examined. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 333. Police Personnel Administration (4). History and philosophy of federal, state, and local police personnel programs; overview of personnel functions. LAJ 300 is recommended.

Prerequisite: admission to the major or minor.
LAJ 334. Issues in Policing
(4). This course provides a comprehensive examination of the current critical issues and policy dilemmas within the American criminal justice system. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
LAJ 342. Juvenile Justice
Process (4). Includes
historical, ideological development of juvenile justice process; analyses policies, mechanisms; examines integrated network of agencies; examines juvenile law, rights, treatment; examines current research. LAJ 300 is recommended. Prerequisite: admission to the major or minor.
Upon successful completion of this course, the student will be able to:
Know the historical
development of juvenile justice
Know the historical
development of policies, laws
and practices of juveniles justice
Know current practice and law with respect to juvenile justice Learn a basic understanding of the system of juvenile justice and its components Complete a research assessment and evaluation of juvenile justice and juvenile justice process
LAJ 350. Criminal Justice and the Media (4). An exploration of media messages concerning crime and criminal justice, how these portrayals compare with the operation of the criminal justice system, and how media images influence both individual attitudes and public policy. LAJ 300 is recommended. By permission. Upon successful completion of this course, the student will be able to:
Identify ways the criminal justice system is represented in popular media including movies and television programs.

Demonstrate critical thinking skills by comparing perceptions of criminal justice in the media to the actual practice of the criminal justice system including police, courts, and corrections. Verbally express analysis of assigned movies and televisions programs. Critically analyze the ways that media images influence personal opinions and public policy about crime and criminal justice.

## LAJ 351. Preparing for a

 Law Enforcement Career (4). This course provides crucial information to help students understand, prepare, compete, and promote themselves during the competitive testing and hiring process for law enforcement positions. LAJ 300 is recommended. By permission. Prerequisite: admission to the major or minor.Upon successful completion of this course, the student will be able to:
Discuss and understand the concept of the police department's hiring process, the continual need for rigid hiring standards, and the historical problems that have arisen without them. Identify personal accomplishments and/or detriments that may impact the student's ability to seek police employment.
Apply life skills and knowledge to prepare students
for a comprehensive understanding of the Civil Service examination process. Be advised of current physical requirements for police service and shown the proper techniques for performing and passing the Civil Service physical examination. Active participation will be required, including performance of these requirements.
Identify minimum education requirements, study techniques for police testing, and current evaluation standards for police service.

Understand and compete in the hiring process, recognize the duties, responsibilities, and public's expectation of the police, proper behavior, grooming, attitude, initiative, and personal responsibility throughout the hiring process, and police academy

## LAJ 353. Great American

Trials (4). Famous American
trials in history will be explored including the role of attorneys, trial advocacy, and whether justice has been achieved. LAJ 300 is recommended. By permission. Upon successful completion of this course, the student will be able to:
Explain the format of trials, trial strategy and trial advocacy. Identify how attorneys use verbal and non-verbal communication in the courtroom.
Use analytical skills to evaluate trials presented in class and make determinations about whether justice has been achieved.
Demonstrate their verbal advocacy skills.
Illustrate their research and writing abilities.
LAJ 396. Individual Study
(1-6). May be repeated if subject is different.
LAJ 397. Honors (1-12).
Prerequisite: admission to department honors program.
LAJ 398. Special Topics (16).

LAJ 399. Seminar (1-5). May
be repeated if subject is different.
LAJ 400. Research Methods
in Criminal Justice (4). This
course examines current research in criminal justice and research methods and statistics. Students will critique current methods. LAJ 300 is recommended. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.

Upon successful completion of this course, the student will be able to:
Conduct independent quantitative and qualitative research
Demonstrate an ability to analyze quantitative data Read, comprehend, and critique scholarly research in the social sciences (emphasis on criminal justice and criminology literature) Construct a realistic research plan
LAJ 401. Ethics, Diversity, and Conflict in Criminal
Justice (4). Introduce students to a multi-cultural approach to practical legal ethics within the criminal justice system. The course covers law enforcement, corrections, and Alternative Dispute Resolution. LAJ 300 is a recommended. By permission.
Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Understand ethical theories
how to apply them in police and corrections work.
Apply ethical rules to a wide variety of situations likely to occur in practical work settings.
View criminal justice from the point of view of diverse cultures; and learn methods of performing criminal justice job tasks in a culturally responsive manner.
Through exposure to theory and practical techniques, develop skills in managing and resolving conflict.
LAJ 402. African Americans and the Constitution (4). The law is the way a society governs itself and protects the freedom of all citizens. African Americans and the
Constitution will examine legal issues engendered with dispute and division. LAJ 300 is recommended. Prerequisites: Completion of the Basic Skills in the General

Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Critically assess the role of slavery in the formation of the U.S. Constitution. Identify how the history of slavery impacted future case law in the United States. Recognize landmark Supreme Court cases and how they have influenced the lived experiences of African Americans.
Critically assess the Brown v. Board of Education case and subsequent decisions via the language of racial jurisprudence.
Identify the "color blind" approach and critically assess it in the context of the lived experience of African Americans.
Distinguish between de jure and de facto racism and how the latter is evident today concerning African Americans. Identify how the court identifies the racial divide and determine whether it's more recent decisions are a road map for new change.
LAJ 403. Sexual Minorities, the Law, and Justice (4). This course examines sexuality, homosexuality, bisexuality, and transgender/transsexual issues related to the legal system. It provides a political and sociological overview of history, morality, law, and law enforcement practices related to sexual orientation. LAJ 300 is recommended. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Identify social justice issues related to sexual minorities Demonstrate an understanding of the historical development of the treatment of sexual minorities
Demonstrate the ability to access information from
library, internet and agency sources and reference appropriately in written assignment
LAJ 410. Legal Writing (4).
The pre-law or paralegal student will learn fundamental legal writing tools in conjunction with basic rules on correspondence, retainer agreements, and other commonly used documents. LAJ 300 is recommended. By permission.
Prerequisites: Completion of
the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Use resources and techniques of effective writing
Demonstrate competency in persuasive writing
Use proper forms of legal citation
Demonstrate ability to edit, review and critique their own and other peoples work Demonstrate ability to write a quality legal memorandum and/or legal brief
LAJ 420. Community and
Social Justice (4). This course will examine the concepts of community justice and restorative justice in the larger context of social justice. Students will explore how community and restorative justice work with the traditional justice system. LAJ 300 is recommended. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Identify social justice issues that influence both crime and societal reactions to crime. Demonstrate communication skills and how they are important to both community and restorative justice efforts. Incorporate an understanding of how the historical development of the traditional criminal justice system
influences the implementation of restorative and community justice projects in written work.
Demonstrate how community and restorative justice attempt to address unresolved ethical dilemmas in the criminal justice system.
Manage a criminal justice conflict using models from restorative justice or community justice. Demonstrate the ability to access information from library, Internet and agency sources and reference appropriately in written assignments.
LAJ 426. Advanced Correctional Counseling (4).
This course will provide students with specialized training in theory and techniques required in the rapidly evolving practice of correctional counseling. LAJ 300 is recommended. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Demonstrate ability to effectively interview criminal offenders
Describe the formal assessment tools currently used in correctional counseling and offender risk assessment Demonstrate knowledge of and ability to use various directive and cognitive-behavioral counseling approaches in working with criminal offenders
Demonstrate knowledge of and ability to use offender group counseling techniques and practices
Demonstrate an in-depth understanding of one or more counseling approaches

## LAJ 440. Basic Mediation

(4). Course provides an introduction to the philosophy, practice, and skills required for basic mediation, which are explored through readings, lectures, demonstrations, and
skill-building role plays. LAJ 300 is recommended. By permission.
Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Demonstrate a working knowledge of basic mediation skills.
Achieve a functional understanding of the role of a mediator.
Demonstrate knowledge of basic concepts of contract, tort, family law and landlord-tenant as applied to mediation.
Develop an appreciation for the problems of ethics in alternative dispute resolution.
LAJ 450. Report Writing (4).
Law enforcement and corrections students will learn basic writing in the context of specialized reports utilized in their fields. LAJ 300 is recommended. By permission. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to communicate clearly, effectively and ethically via written report
Use various law enforcement terms and forms accurately Demonstrate ability to recognize and accurately report all relevant facts and circumstances surrounding various criminal investigations
LAJ 451. Crime in America
(4). American crime problems in historical perspectives. Social and policy factors affecting crime. Crime impact and trends, offender, and victim profiles. LAJ 300 is recommended. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.

Upon successful completion of this course, the student will be able to:
Summarize the history of crime trends
Describe the scope and nature of crime
Identify institutional sources of crime and crime control Analyze the issues surrounding current and alternate crime control strategies Demonstrate proficient verbal communication abilities Demonstrate proficient analytical and writing abilities
LAJ 453. Domestic Violence
Issues (4). This course
provides an overview of domestic violence in our society and examines critical issues, including perspectives from the legislature, courts, police, prosecutors, and victims. Significant emphasis on these perspectives in Washington State. LAJ 300 is recommended. May be repeated for credit. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Identify the legislation
designed to address the issue of domestic violence
Explain the history of perspectives on domestic violence and attempts to manage it
Describe the meaning of domestic violence for victims and why victims fail to adequately respond to the threat of future violence Describe the issues relating to children and domestic violence including teen domestic violence and parenting plans Analyze domestic violence batterers and attempts at treatment and control Discuss issues related to domestic violence and the police including the enforcement of domestic violence laws, the duty to protect, enforcement of
stalking statutes and other
sundry aspects
Discuss issues related to prosecuting domestic violence cases and problems therein, including reluctant witnesses
LAJ 455. Comparative Criminal Justice Systems (4). In this course, students will revisit the U.S. system of criminal justice and learn an appreciation for the criminal justice systems of other countries. By the end of the course students will be able to compare and contrast the different systems and their application, benefits, and weaknesses. LAJ 300 is recommended.
Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Understand the historical context of Canada and Mexico justice systems and how they relate to the United States. Gain knowledge of the African American, Native American, and Irish experience of justice in the United States, Canada, and Mexico.
Explain the police
professionalism, police community relations, and police corruption in the United States, Canada, and Mexico. Explain the court systems of the United States, Canada, and Mexico.
Explain the prison systems of the United States, Canada, and Mexico.
LAJ 459. Current Issues (4).
Current legal, correctional, and enforcement issues will be explored. LAJ 300 is recommended. By permission. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Discuss the nature and
dynamics of criminal behavior
and society's response to this behavior.
Discuss the various theories
that social science scholars use to account for individual (micro) and societal (macro) level variations in crime. Explain how specific institutional, subcultural, and individual-level aspects of American life contribute to the growing crime problem. Analyze potential strategies and approaches that might be used to counter the harmful effects of institutional, cultural, and individual-level risk factors.
LAJ 460. Terrorism (4).
Survey of domestic terrorism and United States interests in international terrorism, including concepts and theories of terrorism, history of terrorism, terrorist organizations, specific terrorist incidents, investigative techniques, and developing legal issues. LAJ 300 is recommended. May be repeated for credit. Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the history of domestic terrorism in the United States. Demonstrate an understanding of current United States interests in international terrorism.
Explain concepts and theories in terrorism.
Give examples of case studies of terrorist incidents involving U. S. interests, domestic and abroad.
Demonstrate an understanding of techniques for investigating terrorist incidents.
LAJ 470. Victimology (4). In this course, students will focus on victims' rights, legal issues pertaining to victims, psychological trauma of crime victims and how to appropriately respond in the field to crime victims. LAJ 300
is recommended.
Prerequisites: Completion of the Basic Skills in the General Education requirements or DTA.
Upon successful completion of this course, the student will be able to:
Identify and explain the historical perspective of the victims' movement and current trends in victimology including victims' rights, legal issues and restorative justice
Analyze the strengths and weaknesses of victims' rights including financial, remedies, victim services and national and state legislation
Identify and distinguish crisis reactions, long-term stress reactions and recovery of trauma experiences in the aftermath of crime Identify and determine the legal issues, social values and interventions for child abuse, sexual abuse, domestic and family violence Identify and apply proper stress management techniques
LAJ 489. Senior Seminar in Law and Justice (4). Critical examination of theory and research in the field of law and justice with an emphasis on applications to policy in law and justice. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Organize concepts of law and social science knowledge of criminal justice
Modify personal knowledge in view of research knowledge Select areas of policy and practice in need of further research
Synthesize theories of law in society, criminal justice and social justice
LAJ 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning
plan, cooperating employer supervision, and faculty coordination. LAJ 300 is recommended. By permission. May be repeated for credit. Grade will either be S or U .
LAJ 491. Workshop (1-6).
LAJ 492. Teaching
Experience in Law and
Justice (1-4). Completion of course in which teaching or assisting is to be done and approval of the instructor and department chair. By permission. May be repeated up to 8 credits. Grade will either be S or U . Upon successful completion of this course, the student will be able to:
Improve communication skills Develop the ability to develop instructional materials

## LAJ 493. Field Experience

(1-12). Supervised internship experience in an approved agency taken during the final two years of the program. Department permission. May be repeated up to 12 credits. Course will be offered every year (Fall, Winter, Spring, Summer). Co-requisite: LAJ 499.

Upon successful completion of this course, the student will be able to:
Provide opportunities for students to integrate knowledge, values and skills acquired during completion of their academic curriculum. Assist students in developing professional competency through supervised application of theory to various practice settings
Introduce students to individuals and populations involved in the criminal justice system in order to promote understanding of the system and the people it services. Provide opportunity for students to work as part of a professional team, and to participate in collaborative activities with members of related professional groups. Foster the development of professional ethics, standards
and methods of evaluating practice

## LAJ 495. Directed Research

(1-5). Individual research project. LAJ 300 is
recommended. By permission. May be repeated up to 10 credits.
Upon successful completion of this course, the student will be able to:
Design, execute, conduct data analysis, and write final report Design and conduct a legal research-project Design and conduct a qualitative research report LAJ 496. Individual Study (1-6).
LAJ 497. Forensics Capstone
(1). A capstone course designed to assess student mastery of fundamental knowledge of forensics through submission of a portfolio of work collected throughout the program, and explore future opportunities. ANTH 497 and LAJ 497 are crosslisted; students may not receive credit for both. Prerequisite: senior standing. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of forensic sciences in medicolegal contexts
Compose technical written report presenting forensic evidence
Formulate oral argument interpreting forensic evidence Assess, interpret and critique sample forensics cases Revise prior student work for professional presentation
LAJ 498. Special Topics (16).

LAJ 499. Field Experience
Seminar (1-5). Seminar to accompany supervised internship in an approved placement. Must be taken in conjunction with LAJ 493.

## LAT 151. Latin (5).

Translation, declension, and conjugation approach using oral-aural drill. Firm foundation in the basic structural principles.

Upon successful completion of this course, the student will be able to:
Identify and translate 300 Latin words.
Decline nouns and adjectives of the first three declensions. They will also decline the Latin demonstrative and personal pronouns. Conjugate all four verb groupings in the active voice, present, imperfect, and future tenses, indicative and imperative moods. Translate simple, complex, and compound sentences from Latin to English and English to Latin.
LEAD 101. Foundations of
Leadership (2). Simulationheavy course purposed for developing a conceptual understanding of leadership across contexts. Knowledge acquisition of core leadership concepts (e.g., perspectivetaking, decision-making, etc.) is reinforced through highfidelity activities.
Upon successful completion of this course, the student will be able to:
Demonstrate awareness of special decision-making considerations for leaders. Recognize leadership opportunities in informal capacities (e.g., family member, friend, group member, university student). Define and provide an example of action-oriented leadership concepts emphasized in the course: goal-setting, helping, and inspiring, demonstrating, planning, decision-making, empathizing, feedback-giving, and problem-solving.
Understand the capability and limitation of leadership across different contexts (e.g. political, organizational, civic, etc.).
Personally define leadership.
LEAD 201. Leading Others:
Essential Skills (3). Students examine leadership theory and principles as they relate to group leadership situations. With emphasis on developing essential leadership skills and
competencies, students apply learning in simulated classroom activities and through an affiliated servicelearning program. Prerequisite: LEAD 101.
Upon successful completion of this course, the student will be able to:
Demonstrate ethical awareness and judgment in decision making.
Demonstrate refinement of essential leadership
competencies: ethics, relationship-orientation, perspective taking selfawareness, self-efficacy, selfregulation, self-assurance, and adaptability.
Demonstrate personal
development of
communication skills.
Demonstrate complete decision-making in problem or conflict situations.
Recognize and understand major leadership theories and principles related to dyadic or group leadership.
LEAD 298. Special Topics (1-
6). May be repeated if subject is different.
LEAD 299. Seminar (1-5).
May be repeated if subject is different.
LEAD 301. Organizational
Leadership (5). Theory-
driven, applied-oriented analysis of leadership in organizations. Prerequisites: LEAD 101 and LEAD 201 or be permission.
Upon successful completion of this course, the student will be able to:
Understand the historical development of leadership in organizations.
Learn several widely accepted leadership theories.
Identify and recommend the use of appropriate leadership theories for organizational activities.
Seek to develop as leaders.
LEAD 396. Individual Study
(1-6). May be repeated if subject is different.
LEAD 397. Honors (1-12).
Prerequisite: admission to department honors program.

LEAD 398. Special Topics (1-
6). May be repeated if subject is different.
LEAD 399. Seminar (1-5). May be repeated if subject is different.

## LEAD 401. Leadership

Experience (5). Project-based review and application of effective leadership principles and skills acquired through previous leadership curriculum. Prerequisites: LEAD 101, and LEAD 201, and LEAD 301 or by permission.
Upon successful completion of this course, the student will be able to:
Formulate coherent framework for integration of relational leadership theory, understand leadership experiences of self and others.
Use relationship- building skills with individuals, task groups, professional associations, community associations, boards, advocacy groups, etc.
Illustrate role of emotional intelligence in leadership, identify students' own emotional intelligence. Implement positive conflict resolution techniques. Identify the role of values and ethics in leadership. Demonstrate ability to effectively lead others in a business, university, or community project. Evaluate students' own leader effectiveness. Identify goals and select and implement interventions that will enhance the functioning of a population, organization and/or community group. LEAD 496. Individual Study (1-6). May be repeated if subject is different.
LEAD 497. Honors (1-12).
Prerequisite: admission to department honors program.
LEAD 498. Special Topics (1-
6). May be repeated if subject is different.
LEAD 499. Seminar (1-5).
May be repeated if subject is different.

LIS 110. Research
Fundamentals (1). Designed
for students new to research at the college level. Course explores knowledge of information sources, more effective searching technique familiarity of services for researchers.
Upon successful completion of this course, the student will be able to:
Identify when research support is necessary in the completion of an academic assignment. Identify various informational databases to obtain research support materials.
Effectively search various information databases to obtain research support materials. Incorporate the ethical use of information in creative works.
LIS 191. Workshop (1-6). By permission. May be repeated for credit under different subtitle. May be repeated up to 9 credits.
LIS 201. Foundations of
Library and Information
Science (3). Introductory course covering the history of libraries and information usage in contemporary society. The course will explore the role of libraries in the organization, preservation and dissemination of information and career opportunities in the discipline. Prerequisite: LIS 110.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the role of library programs, information systems, and information in a democratic society.
Demonstrate an understanding of the social, ethical, and legal implications of information access, services, and technologies, to include such concepts as intellectual property, educational fair use, privacy, security, and public domain.
Demonstrate an understanding of different types of library and information programs and their service populations.

Demonstrate an understanding of the history and development of the library profession, both nationally and internationally. LIS 245. Research Methods in the Digital Age (4). This course examines methods of information gathering and sharing in academic and social environments. Students explore applications of the research process, learn strategies for identifying and synthesizing information, and discuss research influences on scholarly conversations. Formerly LIS 345, students may not receive credit for both. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Examine the relationships between credible information and publication formats, and be able to identify factors that may temper credibility.
Distinguish between various information sources and be able to articulate how a diversity of perspectives develop and advance scholarly conversations.
Discuss information sharing practices used in various regional and global arenas, and how they relate to social justice.
Describe and critique the evolution of information sharing and discuss the community impact of recent developments in information sharing in a government or culture.
Justify the integration and appropriate use of creative and scholarly works into their own research.
Implement the development of coherent collegiate level research methods into their course-specific activities LIS 291. Workshop (1-6). By permission. May be repeated for credit under different subtitle. May be repeated up to 9 credits.
LIS 298. Special Topic (1-6).

LIS 299. Seminar (1-5). May
be repeated if subject is different.

## LIS 310. Information

 Literacy and User Services(3). This course will cover information-seeking theories, methods, and user behaviors. Principles and philosophies of library reference service, information literacy, reading, listening and viewing guidance, and information resources will be explored. Coor prerequisites: LIS 110 and LIS 201.
Upon successful completion of this course, the student will be able to:
Formulate effective communication skills for reference services, including listening effectively, using probing and clarifying questions, and instructing users in search strategies. Formulate strategies to guide patrons in identifying and defining authentic problems and significant questions for investigation.
Compare the characteristics unique to each information format and analyze items according to their specific contribution to patrons' objectives, personal interests, and developmental needs. Analyze the social, ethical, and legal implications of information access, services, and technologies, including intellectual property, copyright, educational fair use, privacy, security, and public domain. Examine media literacy as the application of literacy skills to interpret media and technology messages.

## LIS 314. Technology in

 Library and Information Science (3). This course provides a review of the hardware and software used in libraries. Provides an introduction to technology tools, processes, and web applications that support the delivery of library services. Co- or prerequisites: LIS 110 and LIS 201.Upon successful completion of this course, the student will be able to:
Appraise technology tools, processes, and web applications that support the delivery of library services. Deduce effective strategies for evaluating different technologies and recommending purchases. Examine and appraise Web 2.0 and other social networking technologies.
Examine word processing and production software, analyzing their application in library and information science.
Effectively incorporate media and technology into library programs and instructional services.
LIS 391. Workshop (1-6). By permission. May be repeated for credit under different subtitle. May be repeated up to 9 credits.
LIS 396. Individual Study (16). May be repeated if subject is different.
LIS 397. Honors (1-12).
Prerequisite: admission to department honors program.
LIS 398. Special Topic (1-6).
Course content identified in schedule of classes. May be repeated for credit under different titles. Permission of instructor. May be repeated for credit.
LIS 399. Seminar (1-5). May
be repeated if subject is
different.

## LIS 410. Collection

Development (3). Course
covering the basic components of collection development and management. Topics to be explored will include selection, planning, budgeting and maintenance of library collections. Co- or prerequisites: LIS 110 and LIS 201.

Upon successful completion of this course, the student will be able to:
Synthesize best practices in collection evaluation selection criteria to include and provide diverse literature, media,
information systems, and information services.
Evaluate collections relevant to the educational, cultural, personal, recreational and informational needs of service population.
Analyze analysis selection policies and procedures to facilitate collection development that aligns with the institutional goals and objectives. Evaluate collections for the purpose of selecting and deselecting resources. Synthesize current research in reading advocacy, and reading acquisition and comprehension.
LIS 411. Introduction to
Archives (3). Introductory course in archival studies. The history, development, and nature of work in the profession, the basics of collections management and development, intellectual control, preservation, conservation, and technological applications will be presented. Co- or prerequisites: LIS 110 and LIS 201 or permission of instructor. Upon successful completion of this course, the student will be able to:
Apply basic archival theory, principles and methods. Synthesize the history and development of the archives profession, both nationally and internationally.
Manage archival activities.
Evaluate the impact of technologies on core archival functions.

## LIS 412. Library

Management and Leadership
(3). Course covering policies and procedure necessary for the effective operation of a library and information centers. The course will explore the policies and procedures required for budgeting, planning, promoting and assessing library and information programs. Co- or prerequisites: LIS 110 and LIS 201.

Upon successful completion of this course, the student will be able to:
Generate policies and procedure for a library or information center using quantitative and qualitative data.
Schedule and organize physical and virtual library facilities to create inviting, useful, and engaging learning and meeting spaces.
Develop and implement an effective public relations program that communicates the vital contribution of a library or information centers to lifelong learning.
Design, justify and
administrator a program
budget.
Manage support staff, volunteers and student assistants.
Establish a library or information center advisory committee.
LIS 414. Organization of
Knowledge (3). This course provides an introduction to the organization of print and electronic resources. Topics to be covered include cataloging and classification of resources, use of controlled vocabularies, and intellectual access to those resources. Co- or prerequisites: LIS 110 and LIS 201.
Upon successful completion of this course, the student will be able to:
Synthesize the theories and accepted national standards for cataloging description and subject analysis. Organize information using online bibliographic networks (such as OCLC and LC) and their data and other records. Apply MARC format, Dublin Core and other metadata schema.
Appraise controlled and uncontrolled vocabulary access to information resources. Evaluate the social and moral issues regarding equitable physical and intellectual access to information resources.
LIS 415. Role of the School Library Media Specialist (5).

This course will provide an indepth look at the role of the school library media specialist in the $\mathrm{P}-12$ environment. The course will explore reader advisory services, professional educator standards, standards based information literacy instruction and the application of previous courses outcomes specific to P -12 education settings. Prerequisites: LIS 110 and LIS 201 and LIS 310 and LIS 314 and LIS 410 and LIS 412 and LIS 414.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to improve student learning by providing leadership within the educational community. Demonstrate the ability to develop, implement, and evaluate the school library media program and manage personnel, information systems, resources, and facilities.
Demonstrate the ability to evaluate, select, and maintain resources to provide collections that are integral to the educational goals of the school.
Demonstrate the ability to use a variety of resources to teach students and others in the school community to develop independence in the information problem-solving process including: defining, retrieving, analyzing, interpreting, organizing, evaluating, synthesizing, and presenting information and ideas.
Demonstrate teaching skills in literacy, collaboration, and integrating information literacy with content curriculum. Analyze a variety of strategies to develop life-long learners who read for a wide range of purposes.
With information standards and school goals and objectives in mind, develop collaborative relationships within the school and community to deliver integrated instruction, reading
advocacy, and information services.
Propose strategies to provide access to and provide leadership for the management and use of information and communications technology tools.
Evaluate methods to gather and analyze data to guide program decisions, assess student and staff knowledge and enable self-reflection in order to evaluate the library media program and its impact on teaching and learning.
LIS 490. Library and Information Science
Internship (1-12). This course will provide students with hands-on instruction and experience in a library, archive, museum or other information center. In coordination with the library faculty internship advisor, the student plans and completes an internship. Grade will be S or U . Prerequisites:
LIS 110 and LIS 201 and LIS 310 and LIS 314.
LIS 491. Workshop (1-6). By permission. May be repeated for credit under different subtitle. May be repeated up to 9 credits.
LIS 492. School Library Media Clinical Experience
(4). Students will apply library and information science course work in a supervised 90 -hour P-12 library media center clinical experience, as well as, produce a program portfolio. Grade will either be S or U. Permission of department. Course will be offered on on odd numbered years (Spring). Prerequisites: LIS 110 and LIS 201 and LIS 310 and LIS 314 and LIS 410 and LIS 412 and LIS 414 and LIS 415 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Plan for instruction and assessment
Execute instruction and engage students in learning.

Assess student learning and foster student voice to achieve learning goals.
LIS 496. Individual Study (16). May be repeated if subject is different.
LIS 497. Honors (1-12).
Prerequisite: admission to department honors program.
LIS 498. Special Topic (1-6).
Course content identified in schedule of classes. May be repeated for credit under different titles.
LIS 499. Seminar (1-5). May
be repeated if subject is different.
LLAS 102. An Introduction
to Latino and Latin
American Studies (5). A
multi-disciplinary introduction of Latino and Latin American studies, presented in three main components: People and the Land, The Environment and the Human Condition, and Socio-Political Spectrum. SB-
Perspectives on World Cultures (W).
Upon successful completion of this course, the student will be able to:
Describe how U.S. courts are structured and how they function (including the Federal legal system as well as the typical model structure for state courts) as well as being able to describe the role and duties of each court system. Describe the impact that each court system can have on society.
Describe how law impacts the daily life of citizens. This includes describing the function and role of law in society and the implications this has for citizens. List and describe various legal terms, concepts, and ideas in criminal law, criminal procedure, and civil law.
Describe how law has and is currently used as a means of social control.
Describe how law has been used as a tool for social change. This should include giving specific examples of social movements that have and have not been successful.

Identify the differences between these movements. Compare and contrast law in the United States with law in other countries.
LLAS 298. Special Topics (1-
6). May be repeated if subject is different.
LLAS 299. Seminar (1-5).
May be repeated if subject is different.
LLAS 301. Urban Society in
Latin America (5). Explores
urban identity, planning, issues
and social structure in modern
Latin American cities and investigates the foundations of urban society in Colonial Latin America. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Analyze the interaction
between social strata in
Colonial Spanish and
Portuguese cities.
Recognize patterns of development in urban planning in Latin American cities from Colonial to Modern periods. Define the characteristics and varieties of urban identity formation in a variety of Latin American cities. Analyze challenges facing modern Latin American cities and propose solutions based on research of cities.
Recognize the interaction between cultural and infrastructure strategies for creating livable cities and addressing needs in Latin American cities.
LLAS 388. Mexican Cultural
Studies (5). Mexican Cultural
Studies introduces students to aspects of Mexican society at the intersection of history, race, ethnicity, gender, economics and class with cultural traditions such as music, culinary arts, popular art, public performances and celebrations, language, and religion. Course will not have an established scheduling pattern (Summer).

Upon successful completion of this course, the student will be able to:
Identify the role that cultural practices play in influencing social and economic behavior and practices in Modern Mexico.
Question essentialist constructions of Mexican identity from both internal and external observers.
Evaluate the role that different segments of society play in creating Mexican cultural practices.
Examine academic writings on Mexican culture to understand the varied approaches to cultural studies of Mexico.
LLAS 396. Individual Study (1-6). May be repeated if subject is different.
LLAS 397. Honors (1-12).
Prerequisite: admission to department honors program.
LLAS 398. Special Topics (16).

LLAS 399. Seminar (1-5).
May be repeated if subject is different.
LLAS 496. Individual Study (1-6).
LLAS 497. Honors (1-12).
Prerequisite: admission to department honors program.
LLAS 498. Special Topics (1-
6). May be repeated if subject is different.
LLAS 499. Seminar (1-5).
May be repeated if subject is different.
MATH 101. Mathematics in the Modern World (5). Selected topics from the historical development and applications of mathematics together with their relationship to the development of our present society. Basic Skills 4 Math. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.
MATH 102. Mathematical
Decision Making (5). Selected topics from probability, statistics, and mathematical
decision making with realworld application. Basic Skills 5 - Reasoning. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26-Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class. Upon successful completion of this course, the student will be able to:
Read and generate a variety of graphs.
Use and interpret basic statistical summaries. Explain the limitations of statistics
Interpret and explain
relationships expressed through symbols.
Identify problems in context. Interpret quantitative data in a specific context.
MATH 120. Mathematics as a Mirror: Cultural and Historical Approaches (4). Mathematics is a living field of study which has reflected cultural ideas and norms throughout the centuries. This course will explore the relationship between culture and mathematics in Europe, Africa, and Asia across time. Course will be offered on odd numbered years. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Compare and contrast different forms of mathematical reasoning used in different cultures and at different times. Analyze the social networks through which mathematics is transmitted today, and how this was done in various cultures in the past.
Seek out and utilize research resources in the history of mathematics and science. Evaluate claims that the political and social structure of a culture effects its mathematics using both historical and quantitative methods.

Articulate ways that social structures affect access which groups have access to mathematical knowledge.
MATH 130. Finite
Mathematics (5). The language of sets, counting procedures, introductory probability, decision making, and introductory descriptive statistics. Meets General Education "reasoning" requirement and prepares student for introductory statistics courses in various departments. Basic Skills 5 Reasoning. Prerequisites: either at least 500 on the SAT, 19 on the ACT, a Compass test score of either 50-Pre-Algebra, 26-Algebra, 31-College Algebra, or 31-Trigonometry, or completed MATH 100B or a higher level math class.

## MATH 153. Pre-Calculus

Mathematics I (5). A
foundation course which stresses those algebraic and elementary function concepts together with the manipulative skills essential to the study of calculus. Basic Skills 4 - Math. Prerequisites: either MATH 100 C with a grade of C or higher; or a score of 18 or higher on the Intermediate Math Placement Test, or a score of 66 or higher on the Compass Algebra test. Upon successful completion of this course, the student will be able to:
Identify and describe functions.
Utilize functions.
Work with prototype functions.
Identify and describe the
effects of transformations on
both the algebraic and graphical forms of functions. Identify and describe properties of the graph of a function.

## MATH 154. Pre-Calculus

 Mathematics II (5). A continuation of MATH 153 with emphasis on trigonometric functions, vectors, systems of equations, the complex numbers, and an introduction to analytic geometry. Basic Skills 4 Math. Prerequisites: MATH153 with a grade of C or higher, a score of 17 or higher on the Advanced Math Placement Test, or a score of 46 or higher on the Compass College Algebra Test.
Upon successful completion of this course, the student will be able to:
Model real phenomena using trigonometric functions. Convert between different units of angular measure. Analyze the effects of transformations on the graphs of trigonometric function Use and manipulate inverse trigonometric functions. Use trigonometric formula. Locate and determine features of trigonometric functions and their inverses.
MATH 155. Pre-Calculus
Review (Put on reserve
9/16/17) (5). An accelerated review of topics necessary for success in calculus with a focus on linear, quadratic, rational, exponential, trigonometric functions, and their inverses. Intended only for students continuing to calculus. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.) Prerequisite: COMPASS score of $46+$ on college algebra or $31+$ on trigonometry or advanced math placement.
Upon successful completion of this course, the student will be able to:
Identify and describe functions. Utilize functions.
Work with prototype functions. Identify and describe the effects of transformations on both the algebraic and graphical forms of functions. Identify and describe properties of the graph of a function.
Use and manipulate inverse trigonometric functions.
MATH 164. Foundations of Arithmetic (5). Structure of the real number system. Properties of and operations on integers, rationals, decimal representation, percentages, proportion, graphing, and elementary problem solving.

Recommended for the prospective elementary school teacher. Basic Skills 4 - Math. Prerequisites: 45 earned credits, and either at least a 500 on the SAT, a 19 on the ACT, or a score of 50 on the Compass test.
MATH 170. Intuitive
Calculus (5). An intuitive approach to the differential and integral calculus specifically designed for students in the behavioral, managerial, and social sciences. Not open to students with credit for MATH 172 or higher. Basic Skills 4 Math. Prerequisites: MATH 153 with a grade of C or higher or a score of 19 or higher on the Advanced Placement Test.
MATH 172. Calculus I (5).
Theory, techniques, and applications of differentiation and integration of the elementary functions. Basic Skills 4 - Math. Prerequisites: MATH 154 with a grade of C or higher, a score of 19 on the Advanced Math Placement Test, or a score of 46 or higher on the Compass Trigonometry test.
Upon successful completion of this course, the student will be able to:
Determine limits and continuity of functions.
Determine the derivatives of algebraic functions using the definition of derivative.
Determine the derivatives of functions.
Use the concept of the derivative to determine properties of functions. Model situations using the derivative of a function. Use the first and second derivatives of a function to determine maxima and minima of a function.
Understand the relationship between the derivative of a function and the function's graphical representation.
MATH 173. Calculus II (5).
Theory, techniques, and applications of differentiation and integration of the elementary functions.

Prerequisite: MATH 172 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Use the process of antidifferentiation to solve problems.
Demonstrate an understanding of the definition of a definite integral.
Use the Fundamental Theorem of Calcululs to solve problems. Compute antiderivatives using basic antidifferentiation rules. Use improper integrals to solve problems.
Set up definite integrals to represent quantities that are given in context.
Relate the techniques of integration to the solution of differential equations.
MATH 206. Mathematics for Teachers: Number and Operations (4). This course focuses on the conceptual and procedural understanding of number and operations including counting, place value, models for operations, set theory, algorithms, and the real number system. Concepts are taught from a problem solving perspective. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: sophomore standing and an appropriate score on the SAT, ACT, or mathematics placement exam. Upon successful completion of this course, the student will be able to:
Identify the structure, properties, characteristics of, and relationships between ancient numeration systems and base numeration systems including the use of appropriate manipulatives to help reveal the underlying structures. 1.D. 5
Demonstrate a working knowledge of the intricacy of learning to count including the distinction between counting as a list of numbers in order and counting to determine a number of objects (cardinality principle). 1.D. 4

Use and explain arithmetic operations of different number systems and their properties through the addition, subtraction, multiplication and division of whole numbers and through the addition and subtraction of rational numbers including fraction and decimal numbers and will be able to explain and solve problems involving standard and alternative algorithms. 1.D. 5 Apply and explain the major concepts of number theory and set theory as they apply to elementary mathematics. 1.D.4, 1.D.5, 1.D.6, 4.A Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts. 1.D. 4
Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.1.D. 3
Explain of the progression of learning that begins with the base-ten number system, counting and place value, as it builds to the understanding of and operations with whole numbers, fractions and decimal numbers. 1.D.1, 1.D.4.A, 2.A, Apply the fundamental principles, concepts, and procedures related to mathematical problem solving.
1.D.2, 1.D. 3

MATH 207. Mathematics
Honors Seminar - Lower
Level (1). Introduction to new areas of mathematics. Exposure to open problems in mathematics, and to the practice of modern research mathematics. May be repeated up to 12 credits.
Upon successful completion of this course, the student will be able to:
Name major results in a new field of mathematics.
Locate and read modern
literature in research mathematics.
Attempt to solve open problems in mathematics.
MATH 210. Statistics, Society, and Decisions (5).

The statistical revolution has dramatically changed how our society makes decisions. This course will examine how statistics is used in diverse fields and current ethical and social issues surrounding the use of statistics and data. Does not count towards the Mathematics minor. Course will be offered every year (Fall, Winter). Prerequisite: student must have received at least a 500 on the SAT, or a 19 on the ACT or a score of 50-Pre-Algebra or 26-Algebra or 31-College Algebra or 31Trigonometry on the Compass test or completed MATH 100B with a C or higher or a higher level math class. Upon successful completion of this course, the student will be able to:
Recognize the use of basic statistical concepts such as margins of error and $p$-values. Summarize data both graphically and numerically. Interpret graphical and numerical summaries of data. Interpret statistical concepts such as $p$-values and margins of error in context.
Apply statistical concepts in varied disciplines and contexts. Appraise whether given statistical techniques and study designs are being applied correctly and reasonably, and whether correct conclusions are being drawn. Use principles of experimental design to formulate statistical questions.
Distinguish between correlation and causation and decide when the conditions for causation have reasonably been met.
Analyze the implications of the use of statistics and data in modern society.
Write clear, non-technical explanations of statistical results.
MATH 216. Number and
Operations 2 (4). This course focuses on the conceptual and procedural understanding of number and operations including patterns, proportional
reasoning, percentages, integer operations and models, number theory, and irrational numbers. Concepts are taught from a problem solving perspective. Prerequisites: either MATH 100 C with a grade of C or higher or score of 66 or higher on the Compass Algebra test. Upon successful completion of this course, the student will be able to:
Represent proportional relationships using tables, graphs, equations, diagrams, mathematical models, and verbal descriptions. Demonstrate conceptual understanding in analyzing and solving real world problems that require the use of ratios, the unit rate, rates, proportions and scaling and be able to verbally and through the use of models connect proportional relationships to geometry, measurement, statistics, probability and function. Use and explain arithmetic operations and their properties through the addition, subtraction, multiplication and division of integers and other real numbers including irrational numbers. They will be able to explain and solve problems involving standard and alternative algorithms. Analyze, extend and generalize patterns both geometrically and algebraically. They will write both in explicit and recursive definitions for generating a sequence.
Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts.
Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.
MATH 226. Mathematics for Teachers: Geometry and Measurement (4). This course focuses on the conceptual and procedural understanding of geometry and measurement including shapes, rigid motions, similarity,
congruence, spatial reasoning, proof and measurement. Concepts are taught from a problem solving perspective using appropriate technology. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: 45 earned credits and an appropriate score on the SAT, ACT, or mathematics placement exam. Upon successful completion of this course, the student will be able to:
Use and explain geometric concepts of point, line (both parallel, perpendicular and skew), plane, and angle and use them in describing and defining shapes and reasoning about spatial locations. 1.D. 8 Explain and prove the Pythagorean Theorem and apply it to problem solving situation. 1.D.8.E
Use and explain congruence and similarity in terms of translations, rotations, reflections and dilations and solve problems involving congruence and similarity in multiple ways.1.D. 8 Derive formulas for the perimeter and area of two dimensional figures and the volume and surface area of three dimensional figures. They will then apply the formulas to solving problems involving two and three dimensional shapes. 1.D.7, 1.D. 8

Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts. 1.D. 11 Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems. 1.D. 2
Using the Van Hiele levels of geometric understanding, students will explain the developmental progression of geometric thinking including the development of spatial perception, recognition of shapes, visual matching, counting, classifying and creation of two- and three-
dimensional objects, creating and expanding patterns, and spatial rotation. 1.D.1, 2.A Engage in developmentally and culturally responsive teaching of geometric concepts.
1.D.12.E, 2.B, 2.C, 2.D, 4. A, 4.B, 4.C

Select, use, and determine suitability of the available mathematics curricula, teaching materials, and other resources including manipulatives for the teaching/learning of geometry for all students. 1.D.12.A, 2.B, 2.C, 2.D, 4. A, 4.B, 4.C Demonstrate the ability to guide student discourse with geometric concepts. 1.D.12.C, 4.I

MATH 232. Discrete Modeling for Middle-level Teachers (4). Discrete models including recurrence relations finite differences, logic, applications of graph theory, applications of linear programming, and simple combinatorics. Prerequisites: MATH 164 and MATH 250 Upon successful completion of this course, the student will be able to:
Use and apply the process of mathematical induction Use and apply different types of counting principles Use and apply recurrence relation principles. Use and apply deductive logic as a form of reasoning Use and apply models having roots in graph theory, combinatorics, linear programming, and difference equations.
Create and teach a problem solving discrete mathematics lesson using pedagogy appropriate for middle level students.

## MATH 237. Ciphers and

 Mathematics (3). This course will examine classical ciphers and how mathematics can be used to encipher, decipher, and cryptanalyze. Substitution and transposition ciphers will be examined in an historical context. Course will not have an established schedulingpattern (Winter). Prerequisite: MATH 100C or MATH 101 or MATH 130.
Upon successful completion of this course, the student will be able to:
Encrypt and decrypt monoalphabetic substitution ciphers.
Use mathematical techniques (frequency analysis, word lengths, and linguistic patterns) to cryptanalyze monoalphabetic substitution ciphers.
Encrypt and decrypt
transposition ciphers.
Determine and use appropriate
mathematical techniques to
cryptanalyze transposition ciphers.
Encrypt and decrypt Vigenere Cipher.
Apply frequency analysis, Kaisiski method, and the index of coincidence to cryptanalyze Vingere ciphers.

## MATH 250. Intuitive

Geometry for Elementary
Teachers (4). An intuitive approach to the geometry topics relative to the elementary school curriculum. Prerequisite: MATH 164 with a grade of C or higher.
MATH 251. Probability and Statistics for Elementary Teachers (Put on reserve 9/16/17) (4). This course for elementary and middle grades preservice teachers is an introduction to probability and statistics. Concepts will be explored individually and cooperatively using manipulatives, simulations, and other appropriate methods. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Prerequisite: MATH 164. Upon successful completion of this course, the student/teacher candidates will be able to:
Formulate questions that can be addressed with data. Collect, organize and display data using a variety of methods and representations. Select and use appropriate statistical methods to analyze data.

Develop and evaluate inferences and predictions that are based on data. Understand and apply basic concepts of probability. Conduct simulations and be able to calculate probabilities from these simulations.
MATH 260. Sets and Logic
(5). Essentials of mathematical proofs, including use of quantifiers and principles of valid inference. Set theory as a mathematical system.
Prerequisites: MATH 173 with a grade of C or higher or MATH 172 and CS 301 with grades of C or higher. Upon successful completion of this course, the student will be able to:
Perform basic set operations and determine set relations. Interpret and manipulate quantified statements in mathematical notation. Analyze the structure of mathematical arguments and proofs.
Construct mathematical proofs. Disprove a statement.
MATH 264. Functions for Middle-level Teachers (Put on reserve as of $9 / 16 / 15$.) (5). Analyze and create algebraic models of functions on both continue and discrete systems. Apply function techniques to solve problems. Apply knowledge of functions and of society to communicate concepts of mathematical functions to a diverse group of middle school students. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Prerequisites: MATH 100C with a grade of C or higher or a score of 18 or higher on the Intermediate Math Placement Test.
Upon successful completion of this course, the student will be able to:
Identify, explore, analyze, predict, and represent patterns, relations, and functions.
Apply techniques of algebra to linear, quadratic, rational, trigonometric and exponential functions
Demonstrate understanding of the relationships of equations
and inequalities; including proportional reasoning. Use mathematical models, including technological tools, to represent and demonstrate understanding of discrete and continuous quantitative relationships.
Analyze the concepts of change in various contexts. Apply the fundamental ideas of discrete mathematics in the formulation and solution of problems arising from math and real-world contexts. Apply knowledge of functions and society to communicate concepts of mathematical functions to a diverse group of middle school students. Demonstrate understanding of the historical development of algebra and discrete mathematics.
MATH 265. Linear Algebra I
(4). Vector spaces, linear systems, matrices, and determinants. Prerequisite: MATH 173 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Solve systems of linear equations.
Perform basic matrix
operations.
Determine and use vector space properties.
Translate information between the context of systems of equations, coefficient matrices, and the domain and range of a linear transformation.
Solve problems requiring the use of eigenvalues and eigenvectors.

## MATH 272. Multivariable

Calculus I (5). Differential and integral calculus of multivariable functions and related topics. Prerequisite: MATH 173 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Compute partial sums. Determine convergence and values of infinite series. Determine the interval of convergence for power series.

Solve problems using Taylor
Polynomials and Taylor Series. Learn basic vector algebra properties in R"2 and R"3. Solve problems using functions of two or more variables. Solve problems requiring partial differentiation of functions in two or more variables.
MATH 273. Multivariable
Calculus II (5). Differential and integral calculus of multivariable functions and related topics. Prerequisite: MATH 272 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Use double and triple integrals to solve problems.
Use parametric descriptions of curves and surfaces.
Use vector fields to solve problems.
Use line integrals to solve problems.
Use surface integrals to solve problems.
State and apply the Divergence
and Stoke's theorems to solve
problems.
Use line integrals to solve problems.

## MATH 298. Special Topics

 (1-6).MATH 299. Seminar (1-5).
MATH 306. Middle-level Mathematics Standards
Review (2). This course
focuses on conceptual, procedural, and pedagogical understanding of the mathematics required for the middle-level mathematics endorsement. This is an on-line course. Prerequisites: MATH 102 and MATH 153. Upon successful completion of this course, the student will be able to:
Use and explain concepts from the six mathematical content domains of the Common Core State Standards for middle level mathematics. Use and explain the mathematical practices Common Core State Standards for middle level mathematics.
perform mathematical tasks that reflect on the philosophical and pedagogical practices of the teaching of mathematics in our present culture.
Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.
Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts
MATH 311. Statistical Concepts and Methods (5).
Hands-on activities for exploring data. Surveys, planned experiments, and observational studies.
Modeling, sampling distributions, and statistical inference. MINITAB statistical computing language introduced and used extensively.
Prerequisites: MATH 130 or MATH 173 with a grade of C or higher.
MATH 314. Probability and Statistics (5). This course is a calculus-based introduction to probability statistics. Topics include the basic rules of probability, random variables, continuous and discrete probability distributions, moments, sampling distributions for common statistics, confidence intervals, and hypothesis testing. Prerequisite: MATH 173 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Apply the basic rules of probability to calculate probabilities.
Calculate probabilities and moments for continuous and discrete distributions. Use sampling distributions and limit theorems to calculate probabilities for sample means and proportions.
Apply confidence intervals, hypothesis intervals, and other statistical tools to real data sets. Decide on the appropriate statistical tool for a given
situation, and defend the use of that particular tool. Write statistical problems and results clearly and correctly.
MATH 316. Mathematics for Teachers: Proportional Reasoning and Algebra (4).
This class focuses on children's mathematical learning and the application of developmentally appropriate best teaching practices. Mathematical topics will include number and operations, patterns, proportional reasoning, percentages, functions and models, and number theory. MATH 164 or MATH 206. Upon successful completion of this course, the student will be able to:
Represent proportional relationships using tables, graphs, equations, diagrams, mathematical models, and verbal descriptions. 1.D. 10 Demonstrate conceptual understanding in analyzing and solving real world problems that require the use of ratios, the unit rate, rates, proportions and scaling and be able to verbally and through the use of models connect proportional relationships to geometry, measurement, statistics, probability and function. 1.D. 4 Use and explain arithmetic operations and their properties through the addition, subtraction, multiplication and division of integers and other real numbers including irrational numbers. They will be able to explain and solve problems involving standard and alternative algorithms.
1.D. 5

Analyze, extend and generalize patterns both geometrically and algebraically. They will write both explicit and recursive definitions for generating a sequence. 1.D. 6
Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts 1.D. 11
Use principles of mathematical thinking and problem solving to explore, solve, generalize
and prove mathematical problems. 1.D. 2
Demonstrate the ability to embed CCSS-M Mathematical Practices in the instructional process to deepen conceptual understanding. 1.D. 3, 4.A, 4.B Select, use, and determine suitability of the available mathematics curricula, teaching materials, and other resources including manipulatives for the learning of mathematics for all students. 1.D.12.A, 4.A, 4.B, 4.C, 4.F, 4.H

Demonstrate the ability to guide student discourse in mathematical problem solving, argumentation (creation and critiquing), literacy, and indepth conceptual understanding. 1.D.12.C, 4.A, 4.B, 4.C, 4.D, 4.E, 4.I

Demonstrate knowledge of learning progressions, including conceptual and procedural milestones and common misconceptions, within each content domain and connections to instruction. 1.D.12.D, 2.A, 4.A Engage in developmentally and culturally responsive teaching of mathematics 1.D.12.E, 2.C, 2.D, 3.D, 4.A, 4.B, 4.D, Design and implement a wide range of assessment strategies to inform mathematics instruction and support student learning. 5.A, 5.B, 5.C, 5.D, 5. E, 5.F

## MATH 320. History of

Mathematics (3). A study of the development of mathematics and the personalities involved. Prerequisite: MATH 260 with a grade of C or higher.

## MATH 321. Math WEST-E

Prep (2). Prerequisite:
Students must be admitted into the mathematics education major or minor. Fully online course designed to prepare teacher candidates for the WEST-E in mathematics. Topics include mathematical processes, number and operation, algebra and function, measurement and geometry, statistics and
probability, discrete mathematics and calculus.
Grade will either be S or U .
Prerequisite: MATH 265 with
a C or higher.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of mathematical processes of reasoning and proof, mathematical communication, problem solving, and connections and mathematical history.
Demonstrate understanding of number representations, mathematical operations, and basic number theory. Demonstrate understanding of algebraic and trigonometric functions, as well as linear algebra.
Demonstrate understanding of measurement, axiomatic systems, Euclidean geometry, coordinate and transformational geometry, and non-Euclidean geometry.
Demonstrate understanding of principles of probability, statistics and discrete mathematics.
Demonstrate understanding of principles of calculus.
MATH 322. Assessment of Student Learning for Mathematics Teachers (5).
Candidates will create assessment plans organized around big ideas and essential questions from the Washington State Standards of Student Assessment. Finally, candidates will learn how to develop and implement assessment tasks to identify their student's mathematical performance and plan further instruction. Prerequisite: EFC 210, EFC 310, and MATH 299E and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student/teacher candidate will be able to:
Work with individual or small groups of students will analyze student work to identify error patterns in math content and language and implement
teaching strategies to support their individual needs. Will plan and implement a learning segment (at least three days of planning instruction and assessment). Instruction activities, assessment activities, and state standards/targets must be aligned and multiple assessment strategies must be used.
As part of the learning segment teacher candidates will use the assessment information to modify next lessons and target support for students who are struggling to meet the learning targets.
As part of the learning segment teacher candidates will provide students with feedback on what they did correctly and incorrectly as well as guidance for improving their ability to meet the learning targets. Make appropriate adjustments to instruction during the learning segment from monitoring student learning as well as their own teaching practices.
MATH 323. Teaching Middle-level Mathematics
(4). Teacher candidates will use research-based best practices to plan, teach, and assess lessons aligned with the CCSS-Math in middle school classrooms (40 hours observation and instruction). Prerequisites: admission to the middle-level math major Teacher Certification Program, and current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student/teacher candidate will be able to: Plan and implement a learning segment (at least two days of planning instruction and assessment) based on the learner characteristics and school context of a local 4-9 mathematics classroom. appropriately choose concrete materials (manipulatives) and technology to plan and teach lesson in which students develop a deep understanding of mathematical ideas.

Plan and implement a classroom management plan based on learner characteristics and school context for a local 4-9 mathematics classroom. The plan will include rationale for strategies that will promote student learning, encourage collaboration, cooperation, positive social interaction, conflict resolution skills, individual and group motivation, and value each learner's unique contributions. Participation in professional mathematics organizations and use printed and on-line resources.
MATH 324. Methods and Materials in MathematicsSecondary (5). Prerequisites:
EFC 320, MATH 322, current WSP/FBI fingerprint clearance, and conditional or full admission to the Teacher Certification Program. Corequisite: EFC 210. Upon successful completion of this course, the student/teacher candidate will be able to:
Plan and implement a learning segment (at least three days of planning instruction and assessment) based on the learner characteristics and school context of a local 6-12 mathematics classroom. Appropriately choose concrete materials (manipulatives) and technology media to plan and teach lesson were students develop a deep understanding of mathematical ideas. Plan and implement a classroom management plan based on learner characteristics and school con text for a local 6-12 mathematics classroom. The plan will include rationale for strategies that will promote student learning; encourage collaboration, cooperation, positive social interaction, conflict resolution skills, and individual and group motivation; and value each learner's unique contributions. Demonstrate their participation in professional mathematics organizations and the use of their printed and on-line resources.

MATH 325. Instructional Practices for Teaching
Mathematics (4). Mathematics teacher candidates will practice planning, teaching, and assessing mathematics activities with emphasis on standard-based curriculum, problems solving, teaching for understanding, equity, and technology. Candidates will discuss and implement technology to improve their impact on student learning. Prerequisite: EFC 320, and MATH 324.
Upon successful completion of this course, the student/teacher candidate will be able to: Use technology to engage student in problem solving and collaborating with others. Plan, teach, and video- tape a lesson taught. The candidate will demonstrate their ability to offer structured opportunities for students to develop their own understanding of mathematical concepts, problem-solving strategies, and reasoning.
As demonstrated in the video clip of the lesson they taught, the teacher candidates must demonstrate their ability to facilitate students' responses and actions to improve their understanding of mathematical concepts and make mathematical connections. Create a web-site as a resource for them and other mathematics teachers. This site will demonstrate the candidate's ability to use technology to engage students in problems solving, support student learning to struggling students, model and promote digital citizenship, and to use the National Education Technology Standards for Teachers to improve their teaching.
MATH 330. Discrete
Mathematics (5). Topics from logic, combinatorics, counting techniques, graph theory, and theory of finite-state machines. Prerequisite: MATH 260 with a grade of C or higher.

MATH 331. Continuous
Models (3). Students will use multiple integrals, line integrals, and differential equations to model physical situations. Prerequisite: MATH
272 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
SWBAT calculate
symbolically and numerically, multiple integrals.
SWBAT model physical applications with multiple integrals.
SWBAT model physical applications with line integrals.
SWBAT solve simple linear
differential equations of the
first and second orders.
SWBAT model physical situations with linear differential equations of the first and second orders.
MATH 332. Discrete Models
(4). Discrete models including graph theory, difference equations, and the models of social choice, inherent logic combinatorics, and algebra. Prerequisite: admission to the mathematics education major or minor.
Upon successful completion of this course, the student will be able to:
Use and apply the process of mathematical induction Use and apply different types of counting principles Use and apply algebraic and linear algebraic properties and principles.
Use and apply deductive logic as a form of reasoning Use and apply models having roots in graph theory, combinatorics, difference equations, and social choice.
MATH 335. Combinatorics and Graph Theory (4). An introduction to discrete mathematics and graph theory, with some applications. Emphasis will be placed on proof writing. Prerequisite: MATH 260 with a grade of C or higher.

Upon successful completion of this course, the student will be able to:
Compute and compare cardinalities of different sets.
Categorize graphs.
Synthesize symbolic and graphical representations of graphs to create proofs. Construct correct mathematical proofs, as well as criticize proofs.
MATH 337. Cryptological Mathematics (5). A
mathematical look at code making and code breaking. Famous historical ciphers to be studied will include substitution, Hill, and Vigenere ciphers. Students will also investigate public key cryptography and signature authentication methods. Prerequisites: MATH 260 and MATH 265 and MATH 272.
Upon successful completion of this course, the student will be able to:
Demonstrate a mathematical understanding of various substitution ciphers.
Demonstrate an understanding of Hill ciphers.
Demonstrate an understanding of the Vigenere Cipher.
Demonstrate an understanding of the number theory behind the RSA encryption/decryption algorithms.
MATH 351. Point Set
Topology (4). Introduction to basic concepts of point-set topology: topologies, continuity, compactness, connectedness, and separation axioms. Emphasis will be placed on proof writing. Prerequisite: MATH 260 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Use definition of topology to
determine what collections are topologies.
Test functions to determine
their continuity.
Construct correct proofs
utilizing axioms and
definitions of topology.
Formulate necessary and/or sufficient conditions
guaranteeing the truthfulness of mathematical statements.

## MATH 355. College

Geometry I (4). An inductive and deductive approach to intuitive geometry, modern Euclidean geometry, history of geometry, and axiomatic systems in geometry. Prerequisite: admission to the mathematics education major or minor.
Upon successful completion of this course, the student will be able to:
Utilize inductive and deductive reasoning in the development of geometric notions. Utilize the concepts of finite geometries to understand the concept of axiomatic.
Utilize the concepts of Euclidean geometry in its coordinate free form. Utilize the concepts of Euclidean geometry in its coordinate form.
Utilize the concepts of Euclidean transformations and their respective invariants in heuristic, coordinate free, and coordinated forms.
Utilize the concepts of equivalence relations and equivalence classes to identify similar geometric objects. Utilize technology appropriately to examine, explore, expand, and explain the concepts of Euclidean Geometry.

## MATH 360. Algebraic

Structures I (3). First course in the structure of algebraic systems includes the study of real number systems and other algebraic systems in the development of group theory. Prerequisites: MATH 260 and MATH 265 and MATH 272 with a grade of C or higher or permission of instructor. Upon successful completion of this course, the student will be able to:
Analyze set structures to determine whether these structures are Abelian groups. Analyze set functions to determine whether the functions have homomorphic and isomorphic structures.

Distinguish between dihedral groups of transformations and more general permutation groups.
Demonstrate Cayley's Theorem
Demonstrate the Fundamental
Homomorphism Theorem
Demonstrate proofs of
elementary theorems of Group Theory
MATH 361. Algebraic
Structures II (3). The second course in the structure of algebraic systems, including rings, modules, and fields, and their associated morphisms. Upon successful completion of this course, the student will be able to:
Utilize the common modules, rings, and fields and their representations. Utilize abstract reasoning in both deductive and inductive forms.
Utilize connections among the abstract notions of modules, rings, and fields and other areas of mathematics and science.
Utilize the algebraic structure associated with modules, rings, and fields, including chains, extensions, products, and tensor products. Utilize the functional and structural relationships among groups and between groups and other algebraic structures.
MATH 365. Linear Algebra
II (4). Topics from linear algebra, such as vector spaces, linear transformations, bilinear and quadratic forms, eigenvalues and eigenvectors, and inner products. Emphasis is placed on proof writing. Prerequisites: MATH 265, and at least one of MATH 335 or MATH 351, both with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Describe general vector spaces and their subspaces, besides subsets of $\mathrm{R}^{\wedge}$.
Use properties of abstract vector spaces.
Employ properties of linear transformations defined on abstract vector spaces.

Relate coordinates with respect to different bases of abstract vector spaces.
Write proofs using standard mathematical techniques.
MATH 371. Advanced
Calculus (4). The basic concepts of the real numbers and calculus are presented from an axiomatic standpoint. This course also offers basic proof writing skills that are necessary for more advanced mathematics. Prerequisites: MATH 272, and at least one of MATH 335 or MATH 351, both with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Recognize standard analytical definitions such as supremum, infimum, and convergence. Use the definition of continuity to determine whether or not functions are continuous using various definitions of continuity.
Examine sequences and series and determine their convergence.
Write correct proofs using standard mathematical techniques.
Estimate quantities using the triangle inequality to show convergence.

## MATH 372. Complex

Analysis (Put on Reserve
$9 / 16 / 16$.) (5). Arithmetic of complex numbers and functions of a complex variable, linear fractional transformations, CauchyRiemann equations, contour integration, Cauchy's theorem, residue theorem, power series and applications. (Put on Reserve 9/16/16. Last taught in
2012. Will go inactive

8/24/19.) Prerequisites: MATH
260 and MATH 273 with
grades of C or higher
Upon successful completion of this course, the student will be able to:
Differentiate the elementary
functions, compute line integrals, compute real integrals using residues and
Cauchy's Theorem, compute
the Taylor series for a holomorphic function and the radius of convergence for its Taylor series. Determine where a region is mapped to under a linear fractional transformation. Conversely, students will be able to define a linear fractional transformation that maps one region to another region.
Prove a given function is holomorphic using the CauchyRiemann equations.
Give an epsilon-delta continuity proof.

## MATH 376. Differential

Equations I (3). Elementary methods of solutions of ordinary differential equations
Some numerical methods for solving ordinary differential equations with applications. Prerequisites: MATH 265 and MATH 272 with grades of C or higher.
Upon successful completion of this course, the student will be able to:
Apply existence and uniqueness theorems to initial value problems.
Formulate initial value problems.
Solve differential equations using analytic methods. Analyze differential equations using numerical software. Describe both analytic and approximate solutions clearly using appropriate mathematical notation and language.
MATH 377. Differential Equations II (3). Elementary methods of solutions of ordinary differential equations. Some numerical methods for solving ordinary differential equations with applications. Prerequisite: MATH 376 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Formulate initial value problems involving systems of differential equations. Solve initial value problems involving systems of differential equations using standard techniques.

Graphically describe solutions for two- dimensional autonomous systems of differential equations. Identify important properties of non- linear systems of differential equations. Analyze systems of differential equations using numerical software.
Describe both analytic and approximate solutions clearly using appropriate mathematical notation and language.
MATH 396. Individual Study
(1-6). May be repeated if subject is different.
MATH 397. Honors (1-12).
Prerequisite: admission to department honors program.
MATH 398. Special Topics
(1-6). May be repeated if subject is different.
MATH 399. Seminar (1-5).
May be repeated if subject is different.
MATH 405. Probability and Statistics for Teachers (4).
This course focuses on conceptual and procedural understanding of probability and statistics including probability, graphing, measures of center and spread, distributions, and confidence intervals. Concepts are taught from a problem solving perspective using appropriate technology. Course will be offered every year (Winter). Prerequisites: MATH 130 and MATH 154.
Upon successful completion of this course, the student will be able to:
Read, interpret and make decisions based upon data from graphical displays, such as line graphs, box and whisker plots, histograms, bar graphs, dot plots and scatter plots. Use and explain various ways to summarize, describe and compare distributions of numerical data in terms of shape center and spread. Calculate and explain theoretical and experimental probabilities of simple and compound events, and understand why their values may differ for a given event in
a particular experimental situation.
Apply statistical concepts and representations to model real world situations. They will summarize data, make inferences and justify conclusions.
Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts.
Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.

## MATH 406. Algebra for

Teachers (4). This course focuses on conceptual and procedural development of algebra including logic, algebraic reasoning, equations, inequalities, patterns, sequences, functions, modeling, and polynomial algebra. Concepts are taught from a problem solving perspective using appropriate technology. Course will be offered every year (Fall).
Prerequisites: MATH 130 and MATH 154.
Upon successful completion of this course, the student will be able to:
Reason using the language and structure of algebra to investigate, represent and solve problems including using algebraic expression, equations, inequalities and systems of equations and inequalities.
Examine and reason about functional relationships between various representations including graphs, tables, expressions, concrete models and context. Analyze, extend and generalize sequences, including arithmetic and geometric sequences, both geometrically and algebraically. They will write both explicit and recursive definitions for generating a sequence.
Use and explain the patterns of change in proportional, linear, inversely proportional,
quadratic and exponential functions and the types of realworld relationships these functions can model. Use appropriate technology to investigate and represent concepts, methods and application of mathematical concepts.
Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.
MATH 407. Mathematics
Honors Seminar - Upper-
level (1). Introduction to new areas of mathematics. Exposure to open problems in mathematics, and to the practice of modern research mathematics. May be repeated up to 12 credits. Prerequisite: junior standing or higher. Upon successful completion of this course, the student will be able to:
Name major results in a new field of mathematics.
Locate and read modern
literature in research mathematics.
Attempt to solve open problems in mathematics.
MATH 414. Time Series Analysis (3). Model building, parameter estimation, diagnostic checking of time series data; ARIMA models and forecasting. Analysis of seasonal models. Prerequisites: MATH 410A and either MATH 411A or MATH 314, with grades of C or higher. Upon successful completion of this course, the student will be able to:
Estimate ARMA and ARIMA models for time series data. Evaluate the fit of time series models, and choose appropriate models for a given data set. Assess time series data for trends and seasonality, and estimate models including these terms.
Evaluate properties of a time series model given in mathematical form, including checking stationarity and computing the autocorrelation function of a given model.

Communicate statistical information professionally in writing.
MATH 430. Introduction to Theory of Numbers (3).
Euclidean algorithm, fundamental theorem of arithmetic, Diophantine equations, primitive roots and indices, and other number theory topics. Prerequisite: MATH 260 with a grade of C or higher.
MATH 440. Mathematical Theory of Financial Economics (5). Concepts, principles, and techniques needed for the professional actuarial SOA/CAS Exam MFE are covered in this course. Topics to explore include interest rate models, bond price models, rational valuation of derivative securities, and delta-hedging as risk management techniques. Prerequisites: MATH 411B and MATH 418C.
Upon successful completion of this course, the student will be able to:
Become familiar with notations and terminology used in derivatives markets Can comprehend and construct interate rate models
Become familiar with
techniques for risk management
Be capable of rational valuation of derivative securities
Can comprehend and construct bond price models
MATH 451. Topology I (3).
An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group. Prerequisites: MATH 260 and MATH 265 with grades of C or higher.
MATH 452. Topology II (3).
An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group. Prerequisite: MATH 451 with a grade of C or higher.

Upon successful completion of this course, the student will be able to:
classify topological spaces by topological invariants (e.g., the fundamental group, the Euler characteristic, the knot nolvnomials)
tell in their own words how to apply these concepts to familiar situations (e.g., spheres, tori, trefoils) work cooperatively in the context of mathematics MATH 453. Topology III (3). An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group.
Upon successful completion of this course, the student will be able to:
Classify topological spaces using topological invariants (e.g., fundamental group, homology group, Euler characteristic, knot polynomials)
Prove results about classes of topological spaces based on the topological properties of the spaces
Tie abstract topological concepts to concrete examples of topological spaces found in analysis.
Determine whether certain topological properties are necessary or sufficient for other topological properties

## MATH 455. College

Geometry II (3). Introduction
to non-Euclidean geometry including history, deductive reasoning, and topics in hyperbolic and elliptical geometry. Prerequisites:
MATH 355 and MATH 260
with grades of C or higher. Upon successful completion of this course, the student will be able to:
Utilize inductive and deductive reasoning in the development of geometric notions. Utilize the concepts of Neutral geometries to compare all incident geometries

Utilize the concepts of nonEuclidean geometry in its coordinate free form. Utilize the concepts of nonEuclidean geometry in its coordinate form. Utilize the concepts of nonEuclidean transformations and their respective invariants in heuristic, coordinate free, and coordinated forms.
Utilize the concepts of equivalence relations and equivalence classes to identify similar geometric objects. Utilize technology appropriately to examine, explore, expand, and explain the concepts of Euclidean Geometry.
MATH 456. Geometry for
Teachers (4). This course includes an exploration of plane, coordinate, and transformational geometry. Students will develop an understanding of mathematical structure, method, and application while exploring topics such as axiomatic systems, constructions, and transformations. Course will be offered every year (Spring). Prerequisites: MATH 130 and MATH 154.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the axiomatic structure of geometry, including definitions, axioms and theorems and will reason using the language and structure of geometry, both orally and in writing.
Make conjectures based on inductive reasoning and justify and prove those conjectures using deductive reasoning based on the axiomatic structure of Euclidean geometry.
Establish congruence and similarity criteria and use them to prove congruence and similarity of polygonal figures. Students will recognize and use proportional relationships within similar figures to solve problems.

Investigate the connections between the traditional approach to geometry and a modern approach using transformational geometry. Students will perform reflection, rotation, translation and dilation in the plane using traditional construction tools as well as using analytic formulas requiring the use of coordinate geometry and matrix and vector operations. Use appropriate dynamical geometry software to investigate and represent concepts, methods and application of geometry. Use principles of mathematical thinking and problem solving to explore, solve, generalize and prove mathematical problems.

## MATH 461. Abstract

Algebra I (4). Algebraic structures such as groupoids, groups, rings, and fields. Prerequisite: MATH 365 Upon successful completion of this course, the student will be able to:
Analyze a given algebraic structure to determine if it satisfies an axiomatic system. Write correct proofs within an algebraic axiomatic system. Choose necessary and/or sufficient conditions guaranteeing the truthfulness of mathematical statements. Assess a problem to determine which theorems to combine to write a correct proof.
MATH 462. Abstract
Algebra II (4). Algebraic structures such as groupoids, groups, rings, and fields. Prerequisite: MATH 461 with a grade of a C or higher. Upon successful completion of this course, the student will be able to:
Analyze a given algebraic structure to determine if it satisfies an axiomatic system. Write correct proofs within an algebraic axiomatic system. Choose necessary and/or sufficient conditions guaranteeing the truthfulness of mathematical statements.

Assess a problem to determine which theorems to combine to write a correct proof.
MATH 471. Advanced
Analysis I (4). Further development of properties of calculus. Prerequisite: MATH 371 , with grade of C or higher. Upon successful completion of this course, the student will be able to:
Deduce the behavior of functions by using consequences of uniform convergence.
Formulate necessary and/or sufficient conditions to guarantee integrability or differentiability of functions. Write correct proofs involving uniform convergence, derivatives and integrals. Estimate quantities using the triangle inequality in normed spaces as well as the CauchySchwarz inequality.
MATH 472. Advanced
Analysis II (4). Further development of properties of calculus, including topics in uniform convergence, differentiation, and integration. Prerequisite: MATH 471 with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Deduce the behavior of functions by using consequences of uniform convergence.
Formulate necessary and/or sufficient conditions to guarantee integrability or differentiability of functions. Write correct proofs involving uniform convergence, derivatives and integrals. Estimate quantities using the triangle inequality in normed spaces as well as the CauchySchwarz inequality.
MATH 473. Advanced
Analysis III (3). Further development of properties of calculus. Prerequisite: MATH 472 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Write correct proofs.

Work with limits based on the traditional definition.
Work with sequences and series using the traditional definition.
Describe the topology of the real numbers using the terminology of open sets. Describe and use properties of sets in the real numbers. Define the concept of continuity and apply it to functions.
MATH 475. Mathematical
Modeling (4). An introduction to mathematical modeling using examples from physical, chemical,biological, economic, and social systems. The use of software, critical thinking, and technical communication will be emphasized. Prerequisites: MATH 265 and MATH 272 and MATH 376 and MATH 299S with a grade of C or higher, or with consent of the instructor.
Upon successful completion of this course, the student will be able to:
Select mathematical models to best describe the process of mathematical modeling. predict modeling results. Assess mathematical models by obtaining numerical results. Appraise the requirements of a problem to make modeling decisions, they will judge what to include and what to leave out of a model, and they will defend their choices based on results and constraints. Students will evaluate which mathematical model performs best in a modeling situation

## MATH 476. Numerical

Methods and Analysis I (4).
This course offers an engaging introduction to numerical methods and analysis. Topics include error propagation in mathematical algorithms, data approximation, numerical differentiation and integration. Course work requires programming experience. Prerequisites: MATH 260 and MATH 265 and MATH 299S with a grade of C or higher, or consent of instructor.

Upon successful completion of this course, the student will be able to:
Describe, present and analyze numerical methods for a specific data set, and justify their conclusions.
Construct and analyze computational approximations for different data sets using interpolation and other polynomial approximations. Estimate numerical derivatives and numerical integrals for a given dataset.
Predict and analyze the error propagation that results from mathematical algorithms. Evaluate other numerical approximation methods.

## MATH 477. Numerical

Methods and Analysis II (4).
This course offers an engaging introduction to numerical methods and analysis. Topics include error propagation in mathematical algorithms, data approximation, numerical differentiation and integration. Course work requires programming experience. Prerequisite: MATH 476 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Describe, present and analyze
numerical methods for a specific data set, and justify their conclusions. Construct and analyze computational approximations for different data sets using interpolation and other polynomial approximations. Estimate numerical derivatives and numerical integrals for a given dataset.
Predict and analyze the error propagation that results from mathematical algorithms. Evaluate other numerical approximation methods.
MATH 486. Mathematical
Modeling for Middle-level
Teaching (4). Teacher candidates will create and analyze mathematical models in relation to the CCSS-Math content domains using appropriate technology. They will design real-world math
tasks that highlight the use of models for making sense of mathematics. Prerequisites: MATH 406 and admission to the middle-level math major and application to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Connect math concepts and procedures through math modeling for the following math domains: Number \& Quantity, Algebra \& Functions, Geometry \& Measurement, Statistics \& Probability, Ratios \& Proportional Relationships, and Calculus.
Plan and teach math tasks for the following math domains Number \& Quantity, Algebra \& Functions, Geometry \& Measurement, Statistics \& Probability, Measurement, Ratios \& Proportional Relationships, and Modeling. Apply and explain the historical and cultural development of each branch of mathematics to the discovery of important mathematics ideas. Use history to plan, teach, and assess students understanding of mathematical concepts.
Use appropriate technology to investigate and represent concepts, methods, and applications of mathematic problems. Use appropriate technology to teach and assess the mathematical concepts. Use mathematical thinking (Mathematical Practices) to solve mathematical problems and justify their solutions. Plan, teach, and assess lessons involving mathematical thinking using their understanding mathematics learning theory, and pedagogy. Use principles of making mathematical connections to create lessons that will engage a diverse student's population.
MATH 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social
service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
MATH 491. Workshop (1-6).
The title of the workshop and the credit to be earned shall be determined at the time the workshop is approved.
Designed to give an opportunity for individual and group study of problems in mathematics. May be repeated for credit.

## MATH 495. Undergraduate

Research (1). May be repeated up to 5 credits.
MATH 496. Individual Study (1-6).
MATH 497. Honors (1-12).
Prerequisite: admission to
department honors program.
MATH 498. Special Topics (1-6).
MATH 499. Seminar (1-5).
MATH 100A. Pre-Algebra
(5). This course is designed to prepare students for college mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts underlying algebra. Grade will be XC. Credits will not be allowed toward meeting bachelor's degree requirements. Prerequisite: either 390 or below on SAT, 15 or below on ACT, or 38 or below on PreAlgebra compass test. Upon successful completion of this course, the student will be able to:
Simplify and solve mathematical expressions of whole, integer, rational, and real numbers in symbolic and numeric form
Recognize a variety of problem situations including real-world phenomena that can be modeled by linear functions Translate among numeric, symbolic, graphical, and realworld representations of functions

Understand and use the order of operations for numerical calculations and for algebraic manipulations
Applying appropriate technology to solve problems Recognize, apply, and model the four basic operations of the real numbers numerically, symbolically, and graphically Use and apply operations on decimal, percent, ratios, and rates numbers to solve problems
Make and test hypothesis Work on extended problems in cooperative groups

## MATH 100B. Introductory

Algebra (5). This course is designed to prepare students for college mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts of algebra. Grade will be XC. Credits will not be allowed toward meeting bachelor's degree requirements. Prerequisite: either 400-490 on SAT, or 16-18 on ACT, or 3949 on Pre-Algebra compass test.
Upon successful completion of this course, the student will be able to:
Simplify and solve mathematical expressions of whole, integer, rational, and real numbers in symbolic and numeric form
Recognize a variety of problem situations including real-world phenomena that can be modeled by linear, quadratic, rational, and absolute-value functions
Translate among numeric, symbolic, graphical, and realworld representations of functions
Understand and use the order of operations for numerical calculations and for algebraic manipulations
Identify and use commutative, associative, and distributive properties of the integer, rational, real numbers. Recognize, apply, and model the addition, subtraction, multiplication, division, and radical operations of the real
numbers numerically, symbolically, scientific notation, and graphically Use and apply operations on decimal, percent, ratios, and rates numbers to solve problems
Make and test hypothesis
Work on extended problems in cooperative groups and applying appropriate technology to solve problems.
MATH 100C. Intermediate
Algebra (5). This course is designed to prepare students for college-level precalculus mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts needed to be successful in precalculus. Credits will not be allowed toward meeting bachelor's degree requirements.
Prerequisite: either at least 500
on SAT, or 19 on ACT, or a Compass score of either 50-Pre-Algebra, 26-Algebra, 31College Algebra, or 31Trigonometry, or completed MATH 100B or higher level math course and must receive advising from the academic advising center.
Upon successful completion of this course, the student will be able to:
Simplify, solve, and evaluate mathematical expressions of whole, integer, rational, and real numbers in symbolic and numeric form
Recognize a variety of problem situations including real-world phenomena that can be modeled and solved by linear, quadratic, rational, exponential, and absolutevalue functions Translate among numeric, symbolic, graphical, and realworld representations of functions
Understand and use the order of operations simplify numerical and algebraic expressions.
Understand and use the commutative, associative, and distributive properties to
simplify numerical and algebraic expressions. Solve a system of equation in symbolic and real-world problem form.
Use and apply operations on decimal, percent, ratios, and rates numbers to solve problems
Make and test hypothesis Work on extended problems in cooperative groups and applying appropriate technology to solve problems.

## MATH 299E. Orientation

 Seminar: SecondaryMathematics (2). Introductory seminar for new mathematics education students focusing on problem solving, technical presentation of solutions, and electronic portfolio preparation. Prerequisites: admission to the teaching secondary math major, and application to the Teacher Certification Program. Corequisite: EFC 210. MATH 299S. Seminar Math Major Orientation (4). Introductory seminar for new math majors, focusing on requirements and preparation for the math major. Students will learn appropriate software which will be used in future math major courses. Course will be offered every year (Fall). Prerequisite: acceptance in mathematics major.
MATH 410A. Advanced Statistical Methods I (4). An introduction to generalized linear models, including multiple regression, logistic regression, and ANOVA. Emphasis on applied model evaluation and diagnostics. Course will be offered every year (Fall, Winter).
Prerequisite: MATH 311 or MATH 314 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Evaluate theoretical properties of generalized linear models, including underlying model assumptions and model construction.

Choose an appropriate generalized linear model, including appropriate choices of distribution, link function, transformations, and interactions.
Estimate generalized linear models.
Evaluate the appropriateness and fit of a statistical model, particularly generalized linear models, and interpret the model in context. Estimate ANOVA models, and interpret the results. Propose a major statistical project, choosing appropriate questions to be answered and appropriate statistical tools. Communicate statistical results clearly orally and in writing.
MATH 410B. Advanced Statistical Methods II (4).
Further topics in applied statistics, including time series analysis, principal components analysis, cluster analysis, and nonparametric statistics. Emphasis on applied model evaluation and diagnostics. Course will be offered every year (Winter). Prerequisite: MATH 410A with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Choose an appropriate regression-based time series model for a data set. Evaluate the fit of a time series model and interpret predicted values and prediction and confidence intervals.
Evaluate the results of a principal components analysis. Choose an appropriate decision tree model.
Choose between various methods of cluster analysis, including K-means and hierarchical clustering, and justify a choice for the number of clusters.
Conduct a major statistical project, choosing appropriate statistical tools and evaluating the models appropriately.
Communicate statistical results
clearly orally and in writing.
MATH 411A. Probability
Theory (4). Principal topics
include: combinatorial theory, conditional probability, random variables, expectation and moments, generating functions, various discrete and continuous distributions, law of large numbers, central limit theorem. Prerequisite: MATH 273 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Solve problems involving basic combinatorics.
Use the axioms of probability. Compute conditional probabilities and use them to examine independence of events.
Describe and use discrete and continuous random variables and their distributions, including multivariate and marginal and conditional distributions.
Compute and use expectations of random variables, moments, moment generating functions, and conditional expectations.
MATH 411B. Mathematical
Statistics I (3). Derived
distributions, point and interval estimation, hypothesis testing. Correlation and regression theory. Distribution free methods. Bayesian inference.
Prerequisite: MATH 411A
with a grade of C or higher. Upon successful completion of this course, the student will be able to:
Use different discrete and continuous distributions. Compute distributions of transformations of random variables.
Use standard sampling distributions.
Apply properties of point estimators.
MATH 411C. Mathematical Statistics II (3). Derived
distributions, point and interval estimation, hypothesis testing. Correlation and regression theory. Distribution free methods. Bayesian inference. Prerequisite: MATH 411B with a grade of C or higher.

Upon successful completion of this course, the student will be able to:
Find maximum likelihood and method of moments estimators. Use interval estimation to answer questions about populations.
Test hypotheses about a statistical population.

## MATH 416A. Actuarial

Science Problems II (2).
Review of topics in probability theory important for actuaries, including probabilities, random variables, moments, discrete, continuous, joint, and conditional distributions, and limit theorems. Co- or prerequisite: MATH 411B. Upon successful completion of this course, the student will be able to:
Solve problems involving probabilities, conditional probabilities, and continuous and discrete random variables. Summarize common families of discrete and continuous probability distributions. Apply terminology from insurance to probability questions.
Choose appropriate tools from probability to solve problems similar to those on the actuarial Exam P.
MATH 416B. Actuarial
Science Problems III (2).
Review of topics in financial mathematics important for actuaries, including time value of money, annuities, loans, bonds, and derivatives markets. Co- or prerequisite: MATH 418C.
Upon successful completion of this course, the student will be able to:
Use the important definitions and theorems in the area of financial mathematics to solve SOA/CAS- style examination problems.
Answer and solve examination problems accurately and efficiently.
Communicate their solutions to problems in written and oral form.

MATH 417A. Short-Term Actuarial Mathematics I (4). Mathematical tools for shortterm insurance, including severity models, frequency models, aggregate models, coverage modifications, and risk measures. Course will be offered on on odd numbered years (Fall). Prerequisite: MATH 411C and MATH 418C with grades of C or higher. Upon successful completion of this course, the student will be able to:
Apply techniques for creating a new family of distributions in severity models (including multiplication by a constant, raising to a power, exponentiation, and mixing). Compare and contrast various frequency models, including Poisson, Mixed Poisson, Binomial, Negative Binomial, Geometric, and mixture models.
Solve for relevant parameters and statistics in collective (aggregate) risk models.
Evaluate the impact of coverage modifications (including deductibles, limits, and coinsurance) in frequency, severity, and aggregate models. Evaluate projects using risk measures.
Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.
MATH 417B. Short-Term
Actuarial Mathematics II (4).
Mathematical tools for shortterm insurance, including construction and selection of parametric models and credibility procedures. Course
will be offered on even numbered years (Winter). Prerequisite: MATH 417A
with a grade of C or higher.
After successful completion of this course, students will be able to:
Estimate parameters for severity, frequency, and aggregate distributions using Maximum Likelihood Estimation.

Estimate parameters for severity, frequency, and aggregate distributions using Bayesian Estimation Choose an appropriate model, using both hypothesis tests and score-based approaches. Estimate losses using classical and Bayesian credibility. Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.

## MATH 417C. Short-Term

Actuarial Mathematics III
(3). Mathematical tools for short-term insurance, including insurance and reinsurance coverage, pricing, and reserving. Course will be offered on even numbered years (Spring). Prerequisite: MATH 417B with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Compare and contrast different types of short-term insurance and forms of reinsurance. Compare and contrast the different forms of experience rating.
Estimate unpaid losses for short-term insurance.
Evaluate premiums using pure premium and loss ratio methods.
Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.

## MATH 418A. Financial

Mathematics I (4). Actuarial financial mathematics, including the time value of money, methods of measuring interest and discount, noncontingent annuities and cash flows, and loans and amortization. Course will be offered every year (Fall). Prerequisite: MATH 173 with a grade of C or higher. Upon successful completion of this course, the student will be able to:

Compare methods of measuring interest and discount, including effective rates, nominal rates, and variable force of interest. Value an investment or series of cash flows using variable force of interest.
Value annuities-certain as of a given date, including level and variable (arithmetic and geometric) annuities and perpetuities.
Value the outstanding balance, principal paid, and interest paid for a loan at any point in time, including loans with variable interest rates or non-level payments.
Choose appropriate interest rates for a given problem and justify that choice.
Communicate financial mathematics results clearly in writing.

## MATH 418B. Financial

Mathematics II (4). Actuarial financial mathematics, including bonds, returns, duration and convexity, immunization, and swaps and interest rate determinants. Course will be offered every year (Winter). Prerequisite: MATH 418A with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Calculate the price, book value, accumulation of discount/amortization of premium, redemption value, coupon rate, or yield rate of a bond given sufficient partial information.
Estimate the value of an investment using duration and convexity.
Construct an asset portfolio for
Redington immunization, full immunization, and exact matching of a series of liability cash flows.
Summarize the determinants of interest rates and the components of interest. Measure the sensitivity of a valuation to changes in parameters by conducting sensitivity testing.

Communicate financial mathematics results clearly in writing.

## MATH 418C. Financial

Mathematics III (4). Actuarial
financial mathematics, including portfolio theory, investment risk and project analysis, forwards and futures, and derivatives pricing models. Course will be offered every year (Spring). Prerequisite: MATH 418B and (MATH 314 or MATH 411A) with grades of C or higher.
Upon successful completion of this course, the student will be able to:
Measure the required return on an asset using capital asset pricing models and factor models.
Assess a company's level of risk using different measures of risk and different methods of risk analysis.
Construct option portfolios to hedge a given position. Value options using the BlackScholes and binomial pricing models.
Estimate option prices using Greeks, and delta-gamma hedge a portfolio.
Communicate financial mathematics clearly in writing.

## MATH 419A. Long-Term

Actuarial Mathematics I (4).
Mathematical tools for longterm insurance, including key features of long-term coverage and survival models and their estimation. Course will be offered on even numbered years (Fall). Prerequisite: MATH 411C and MATH 418C with grades of C or higher. Upon successful completion of this course, the student will be able to:
Compare and contrast longterm coverages in insurance (life, health, general) and retirement benefits (pensions, retiree health care). Estimate survival models using nonparametric methods. Formulate Markov chain survival models.
Estimate model quantities using approximations for fractional ages.

Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.

## MATH 419B. Long-Term

Actuarial Mathematics II (4).
Mathematical tools for long-
term insurance, including present value random variables associated with benefits and expenses for survival models, and premium calculations for these models. Course will be offered on on odd numbered years (Winter). Prerequisite: MATH 419A with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Evaluate and interpret probabilities, means, variance, and percentiles for survival models.
Estimate the model quantities above using approximation methods.
Value premiums based on the equivalence principal, the portfolio percentile premium principle, and profit testing. Assess the effect on premiums of changes in benefits and underlying assumptions. Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.

## MATH 419C. Long-Term

Actuarial Mathematics III
(3). Mathematical tools for long-term insurance, including net premium reserves, modified reserves, gross premium reserves, expense reserves, and applications of long-term insurance tools to pension plans and retirement benefits. Course will be offered on on odd numbered years (Spring). Prerequisite: MATH 419B with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Value net premium reserves, modified reserves, gross
premium reserves, and expense reserves.
Compare and contrast common profit measures.
Evaluate actuarial accrued liability and normal cost for retirement plans.
Evaluate the expected present value of future benefits, the accumulated postretirement benefit obligation, and normal cost or service cost for retiree health care plans.
Assess the impact of changes in underlying valuation assumptions on pension and retiree health care plans. Design an appropriate actuarial model for a given situation or application.
Assess the appropriateness of an actuarial model for a given application.

## MATH 489A. Actuarial

 Senior Seminar: Predictive Analytics and Actuarial Modeling (3). The actuarial modeling process, including problem definition, model selection and validation, and communication of results and uncertainties. Includes a capstone senior project. Course will be offered every year (Spring). Prerequisites: MATH 410B and (MATH 417B or MATH 419B) with grades of C or higher.Upon successful completion of this course, the student will be able to:
Assess the strengths and weakness of data and conduct basic data validation
Formulate an actuarial problem in terms that are amenable to a solution.
Select an appropriate model that addresses an actuarial problem.
Evaluate a model and assess whether the model is valid for its intended purpose. Communicate the results of an actuarial analysis clearly, including any limitations and uncertainties.

## MATH 499A. Senior

 Seminar: Actuarial Science(2). Individualized projects using oral presentations and a written portfolio to show
mastery in the program outcomes for actuarial science.
Co- or prerequisites: MATH
417B or MATH 419B.
MATH 499E. Senior
Seminar: Secondary
Mathematics (4).
Individualized projects using oral presentations and written electronic portfolio to show mastery in all program outcomes for teaching secondary mathematics. Prerequisite: MATH 325. MATH 499S. Senior Seminar
(2). Individualized projects using oral presentations and written portfolio to show mastery in all program outcomes for mathematics. Course will be offered every year (Winter).
MCNA 298. Special Topics (1-6). May be repeated if subject is different.
MCNA 299. Seminar (1-5). May be repeated if subject is different.
MCNA 301. Introduction to the McNair Scholars Program (1). A seminar designed to introduce students to the McNair Program and guide them through the steps of identifying a faculty mentor and choosing a research topic. May be repeated up to 2 credits. Prerequisite: admission into the McNair Scholar Program.
Upon successful completion of this course, the student will be able to:
Identify a Faculty Mentor Identify a summer research topic
MCNA 302. Finding a
Graduate School (1). A seminar designed to assist McNair Scholar students identify prospective graduate schools in their field of study. May be repeated up to 2 credits. Prerequisite: MCNA 301 and admission into the McNair Scholars Program.. Upon successful completion of this course, the student will be able to:
Identify potential graduate programs.

MCNA 303. Completing the Graduate School Application
(1). A seminar designed to assist McNair Scholar students to complete their graduate school application materials. May be repeated up to 2 credits. Grade will either be S or U. Prerequisite: MCNA 302 and admission into the McNair Scholars Program.
Upon successful completion of this course, the student will be able to:
Finish applying to graduate programs within each student's discipline and area of study.
MCNA 395. Undergraduate
Research Methods (2). An
introduction to the steps of writing a research proposal. Prerequisite: admission to the McNair Scholars Program.
MCNA 396. Individual Study (1-6). May be repeated if subject is different.
MCNA 397. Honors (1-12).
Prerequisite: admission to department honors program.
MCNA 398. Special Topics (1-6). May be repeated if subject is different.
MCNA 399. Seminar (1-5). May be repeated if subject is different.
MCNA 401. Conquering the Graduate Record Exam (2). This course is designed to prepare juniors and seniors who plan to pursue graduate programs that require GRE scores. Topics include test-taking strategies for the verbal, quantitative, and writing assessments. May be repeated up to 6 credits. Grade will be S or U . Prerequisite: junior or senior status. Upon successful completion of this course, the student will be able to:
Become familiar with the structure of the exam and the types of questions for each section.
Learn proven test-taking strategies for each type of questions.
Learn the most common vocabulary words included in the exam.

Review arithmetic, algebra and geometry.
Learn to write essays that meet the standards of the highestscoring answers on the GRE exam.
MCNA 496. Individual Study
(1-6). May be repeated if subject is different.
MCNA 497. Honors (1-12).
Prerequisite: admission to department honors program. MCNA 498. Special Topics (1-6). May be repeated if subject is different.
MCNA 499. Seminar (1-5).
May be repeated if subject is different.
MET 255. Machining (4).
Basic operations and technical information concerning common metal working machines and manufacturing processes. Two hours lecture and four hours laboratory per week. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Perform simple and accurate turning operations using an engine lathe
Operate an engine lathe to cut threads
Setup and perform simple milling operations on a vertical milling machine Use hand tools to accurately layout part feature locations Measure part features using precision instruments accurately
Create an operations process document for a simple machining job Demonstrate a complete understanding of safety procedures in theory and in practice while using lab equipment

## MET 257. Casting Processes

(4). Theory and practice in green sand, shell core, permanent mold, no bake, and evaporation casting processes. Two hours lecture and four hours laboratory per week.
MET 298. Special Topics (16). May be repeated if subject is different.

MET 299. Seminar (1-5). May be repeated if subject is different.

## MET 310.

Hydraulics/Pneumatics (4). A study of the application, controls, and uses of air and liquid for the transmission of power. Two hours lecture and four hours laboratory per week. Prerequisite: IET 210 or permission.
Upon successful completion of this course, the student will be able to:
Select a reading list of references relevant to research project.
Collect test data if project is of an experimental nature.
Correlate findings.
Prepare for the comprehensive written exam, follow instructor's study guide and answer test questions.
MET 314. Applied
Thermodynamics (4).
Properties of pure substances, first and second laws of thermodynamics, enthalpy and entropy, perfect gases, Carnot cycle, steam cycles, refrigeration cycles, mixtures of perfect gases, chemical reactions, and combustion. Four hours lecture per week. Prerequisites: MATH 173 and PHYS 112 or PHYS 182. Corequisite: MET 314LAB.

## MET 315. Fluid Dynamics

(4). Fluid statics, continuity, Bernoulli, and the general energy equation, laminar and turbulent flow, friction losses in pipes and ducts, pump performance and selection, compressible flow, and fluid measurements. Four hours lecture per week. Co-requisite: MET 315LAB. Prerequisites: ETSC 311 and MET 314. Upon successful completion of this course, the student will be able to:
Develop an understanding of the practical aspects of fluid statics \& continuity by relating theory to various applications. Apply the Bernoulli equation and the general energy equation and learn to evaluate
the energy content within a flowing fluid.
Learn to predict the flow rate of fluids in ducts and pipes for compressible and incompressible fluids. Calculate and use dimensionless numbers such as Reynolds number, lift and drag coefficients, etc.
Demonstrate the ability to plan and conduct fluid mechanics experiments.
Demonstrate the ability to write various types of test reports common in the engineering field.
Learn terminology in the fluid dynamics technical field so that they may read, discuss and comprehend the relevant literature.
Demonstrate the ability to select proper instrumentation to support experiments and have the ability to calibrate various sensors and connect sensors to data acquisition systems.
Perform computerized data analysis and be able to present and explain experimental results with clarity.

## MET 316. Applied Heat

Transfer (4). Steady and unsteady state heat conduction, free convection, forced convection in tubes, forced convection over exterior surfaces, radiation heat transfer, change in phase heat transfer, heat exchangers, and heat pipes. Four hours lecture per week. Co-requisite: MET 316LAB. Prerequisite: MET 315.

Upon successful completion of this course, the student will be able to:
Show their ability to understand heat transfer concepts, predict temperatures and energy transfer rates for various thermal systems. Demonstrate the ability to plan and conduct heat transfer experiments and operate related equipment. Learn terminology in the heat transfer field so that they may read, discuss and comprehend the relevant literature.

Perform computerized data analysis and demonstrate the ability to write various technical reports with correct format, grammar, and good writing skills.
MET 320. Fundamentals of Laser Technology (4).
Overview of laser technology
with emphasis on laser characteristics, safety, and applications. Four hours of lecture per week. Prerequisite: PHYS 113.
MET 327. Technical
Dynamics (4). Topics: rectilinear and curvilinear motion, rotational kinematics, work, energy and power, linear impulse and momentum, angular impulse and momentum, rigid body motion, relative motion, and vibrations. This course consists of four hours of lecture each week plus an associated lab for two hours per week. Course will be offered every year (Spring). Prerequisite: ETSC
311 with a grade of $2.3, \mathrm{C}+$, or higher. Co-requisite: MET 327LAB.
Upon successful completion of this course, the student will be able to:
Analyze dynamic
physical systems (both motion and vibration).
Predict motion of a point or a rigid body.
Analyze impulse and momentum of objects. Analyze work, potential and kinetic energy if objects.

## MET 345. Lean

Manufacturing (4). The principles of Lean are taught. Students gain hands-on experiences in the application of Lean concepts through the production of an actual manufactured project. Two hours of lecture and four hours of laboratory per week. Course will be offered every year (Fall and Spring). Prerequisites: ETSC 160 and (ETSC 145 or MET 255, or permission of instructor).
Upon successful completion of this course, the student will be able to:

Demonstrate lean manufacturing principles in the production of manufactured parts
Produce a Value Stream Map
for current and future state Interpret 5 S elements and demonstrate implementation Apply Kaizen improvements that will affect production efficiency
Define lean manufacturing terms commonly used in industry
Demonstrate proper use of a variety of equipment to manufacture product to specification without defects Design a manufacturing mistake-proofing procedure Identify and suggest methods for reducing or eliminating the seven wastes in manufacturing Identify safety hazards in a given manufacturing environment and suggest methods for mitigation MET 351.
Metallurgy/Materials and Processes (4). Ferrous and nonferrous metals and alloys; polymeric, ceramic, and cellular materials; use of phase diagrams, cooling curves, stress-strain diagrams, and metallography. This course consists of four hours of lecture each week plus an associated lab for two hours per week. Course will be offered every year (Fall).
Prerequisites: CHEM 111 or CHEM 181.
Upon successful completion of this course, the student will be able to:
Recognize and demonstrate the importance of engineered materials in everyday life Illustrate society's dependence on materials
Relate the value of knowledge of engineering materials technology to the consumer, citizen, and members of the technological workforce
MET 355. Advanced
Machining and CNC
Programming (4). Machining of metallic and non-metallic materials on automated equipment; mass production
technology; programming and operation of CNC equipment. This course will consist of two hours of lecture and four hours of lab per week. Course will be offered every year (Fall and Winter). Prerequisite: MET 255.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of advanced machining operations using the Machine Tool Lab.
Conduct inspection of machined parts using common precision measuring instruments and recommend revisions in a process to achieve greater accuracy and or precision.
Demonstrate an understanding of Quality Assurance and Process Control.
Work effectively in a team.
Use CAD/CAM software to generate a machining program. Create and produce a simple
CNC program using manual programming methods. Simplify and develop machining efficiencies in a manufacturing procedure.
MET 357.
Welding/Fabrication (4).
Theory and practice in arc welding, oxyacetylene welding and cutting, MIG, TIG, and plastic welding. Two hours lecture and four hours laboratory per week.
MET 382. Plastics and
Composites (4). Composition, characteristics, and classifications of plastics and composite materials incorporating industrial applications, processing, and fabrication. This course consists of two hours of lecture and four hours of lab per week. Course will be offered on odd numbered years (Winter). Prerequisites: CHEM 111 and CHEM 111LAB, or CHEM 181 and CHEM 181LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to operate effectively in the
plastics and composites industrial environment. Select and specify or design plastics and forming operations for particular applications.
MET 387. Engineering
Ethics (2). This course applies critical thinking to effective workplace and professional performance within mechanical engineering, with ethics as a primary aspect in developing students to be successful engineers. There are two hours of lecture per week. Course will be offered every year. Course will not have an established scheduling pattern. Pre-requisite: MET 314. Upon successful completion of this course, the student will be able to:
Classify and identify ethical issues in an engineering context
Characterize ethical terms, cases and analyses
Apply ethics analyses to engineering scenarios mitigate related issues
Modify personal behavior and work place environment to comply with ethics
MET 388. Tool Design (Put on reserve 9/16/17) (4).
Principles of tool design for material removal, work holding, press working, joining and inspection processes with emphasis on inventive ability and problem solving. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Prerequisites: IET 160 or IET 265, and MET 255.
Upon successful completion of this course, the student will be able to:
Apply appropriate knowledge to critically evaluate the efficiency of existing tools (ABET 3c) Design new tools that produce acceptable parts at reasonable costs (ABET 3d)
Redesign tools for increased production rate, quality, \& safety (ABET 3e) Identify, analyze, and solve technical problem (ABET 3f) Communicate technical content effectively ABET3g)

MET 396. Individual Study
(1-6). May be repeated if subject is different.
MET 397. Honors (1-12).
Prerequisite: admission to department honors program.
MET 398. Special Topics (1-
6). May be repeated if subject is different.
MET 399. Seminar (1-5). May be repeated if subject is different.
MET 411. Energy Systems I
(4). Power generation, energy reserves, fuels, reciprocating machines, internal combustion engines, rotating compressors, axial flow turbines, and gas turbine power. Four hours lecture per week. Co-requisite: MET 411LAB. Prerequisite: MET 316.
Upon successful completion of this course, the student will be able to:
Develop an understanding of the practical aspects of thermodynamics by relating theory to various applications of energy conversions systems. Learn the fundamentals of various state-of-the art energy conversion systems such as steam power plants, spark ignition engines, compression ignition engines, gas turbines, and rocket engines.
Demonstrate an engineering understanding of refrigeration and air conditioning systems. Learn terminology in the energy conversion technical field so that they may read, discuss and comprehend the relevant literature. Demonstrate the capability of predicting and measuring the performance of energy conversion systems. Demonstrate the ability to plan and conduct energy conversion experiments.
Perform computerized data analysis and be able to present and explain experimental results with clarity. Demonstrate the ability to select proper instrumentation to support experiments and have the ability to calibrate various sensors and connect
sensors to data acquisition systems.
Become a better informed citizen who can take a leadership position when discussions arise dealing with energy issues.
Demonstrate the ability to write various types of test reports common in the engineering field.
MET 418. Mechanical Design
I (4). Mechanical design principles including material and device responses to complex loading and optimization of energy system and mechanical drives. This course consists of four hours of lecture each week plus an associated lab for two hours per week. Course will be offered every year (Fall). Prerequisite: ETSC 265 and (ETSC 312 with a grade of C + or higher) and MET 255 and MET 327 and MET 327LAB and MET 426 and MET 426LAB.
Upon successful completion of this course, the student will be able to:
ABET SO 3e: An ability to function effectively as a member or leader on a technical team. ABET SO 3d: An ability to design systems, components, or processes for broadlydefined engineering technology problems appropriate to program educational objectives. (Standard machine components such as gears, belts, and chain drive, etc.) ABET SO 3f: An ability to identify, analyze, and solve broadly-defined engineering technology problems. (Proceed from a design concept to a complete design including analysis, part drawings, and material specification.) ABET SO 3k: A commitment to quality, timeliness, and continuous improvement. (Apply technical methodology in optimizing a complete design in terms of weight, cost estimates, as well as 'buy' decisions - ROI.)

MET 419. Mechanical Design
II (4). Fasteners, welds,
machine frames, pressure vessels, hydraulic cylinders, electrical motors, and actuators. This course consists of four hours of lecture each week plus an associated lab for two hours per week. Course will be offered every year (Winter). Prerequisite: MET 418.

Upon successful completion of this course, the student will be able to:
Proceed from a design concept to a complete design including analysis, part drawings, and material specification in a lab setting.
Function effectively as a
member or leader on a
technical team.
Apply technical methodology in analyzing a complete design in terms of weight and cost estimates, as well as 'buy'
decisions in a lab setting.
MET 420. Finite Element
Analysis (4). Computerized modeling of structural and thermal design problems. This course consists of two hours lecture and four hours laboratory per week. Course will be offered every year (Winter). Prerequisites: ETSC 265 and MET 426.
Upon successful completion of this course, the student will be able to:
Demonstrate and calculate the analytical method of finite element analysis (FEA) Evaluate appropriate use of numerical analysis techniques for a given engineering problems
Assess the results of FEA Defend use of good engineering judgment in the design of FEA models Apply computer based systems to develop and analyze problems
Document and verbally articulate model usage and results
MET 423. Computer-aided Design and Manufacturing
(4). Integrates Computer-aided Design (CAD) and Computer-
aided Manufacturing (CAM).
Three hours lecture and two
hours laboratory per week.
Prerequisites: ETSC 265 and MET 355.
Upon successful completion of this course, the student will be able to:
Describe CAD/CAM.
List the stages of part design and manufacturing.
Describe the documentation resulting from the CAD process.
Identify the types of three dimensional modeling schemes and appropriately select the type for designing a part. Describe CAD design and engineering analysis activities. Produce a solid model drawing and transfer geometry to another software. Produce a CNC machined part from a solid model drawing. Translate geometry into programming code suitable for machining.
Describe manual part programming methods. Describe the CAD/CAM part programming process. Describe post processing. Select and electronically transfer any of four me types appropriate for software interaction.

## MET 426. Applications in

 Strength of Materials (4). Topics support stress analysis and design. Laboratory activities include material strength, hardness, impact testing, strain gage technology, photoelasticity, ultrasonics, and eddy current. This course consists of four hours of lecture each week plus an associated lab for two hours per week. Course will be offered every year (Spring). Prerequisites: ETSC 312 and MET 351.Upon successful completion of this course, the student will be able to:
Develop the knowledge and confidence to use 'compliant' engineering methods Apply advanced stress analysis methods in an engineering environment

MET 483. Ceramics and
Composites (4). Composition, characterization, and classification of ceramics and related composite materials incorporating industrial applications, processing, and fabrication. This course consists of two hours of lecture and four hours of lab per week. Course will be offered on even numbered years (Winter). Prerequisites: CHEM 111 and CHEM 111LAB, or CHEM
181 and CHEM 181LAB.
Upon successful completion of this course, the student will be able to:
Classify and identify ceramics
\& composites in an
engineering context
Characterize ceramic
composition, structure and properties
Design and process ceramics and composites to obtain predicted properties
Fabricate basic
ceramic/composite parts in
Select and improve
ceramic/composite processes
for increased manufacturing
efficiency

## MET 488. Professional

Certification Exam
Preparation (2). A
comprehensive review of professional mechanical engineering principles and technical skills in preparation for the national certification examination. Two hours of lecture per week. Course will be offered every year (Winter). Prerequisite: MET 418. Upon successful completion of this course, the student will be able to:
Demonstrate their ability to perform basic calculations
found in mechanical
engineering
Demonstrate their basic knowledge of principles on the FE exam, in such areas as statics, mechanics of materials, materials science,
thermodynamics, fluids, etc.
Develop and test their skills, education, and knowledge of the general mechanical
engineering practice as a certified Engineer in Training MET 496. Individual Study (1-6). May be repeated if subject is different.
MET 497. Honors (1-12). Prerequisite: admission to department honors program.
MET 498. Special Topics (1-
6). May be repeated if subject is different.
MET 499. Seminar (1-5).
May be repeated if subject is different.

## MET 314LAB. Applied

 ThermodynamicsLaboratory (1). Practical application of thermodynamics systems teaching First and Second Law of Thermodynamics principles. Lab work includes usage of state-of-the-art instrumentation and data systems. This couse is two hours per week with an associated lecture that is four hours per week. Course will be offered every year (Fall). Prerequisites: MATH 173 and either PHYS 182 or PHYS 112.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the practical aspects of thermodynamics by relating theory to various applications of energy conversions systems. Recognize the fundamentals of various state-of-the-art energy conversion systems such as steam power plants, spark ignition \& compression ignition engines, gas turbines. Demonstrate an engineering understanding of refrigeration and air conditioning systems. Demonstrate an understanding of terminology in the energy conversion technical field in order to read, discuss and comprehend the relevant literature.
Demonstrate the capability of predicting and measuring the performance of energy conversion systems. Demonstrate the ability to plan and conduct energy conversion experiments.

Demonstrate the ability to select proper instrumentation to support experiments and have the ability to calibrate and connect various sensors to data acquisition systems. Perform computerized data analysis and be able to present and explain experimental results with clarity. Demonstrate the ability to write various types of test reports common in the engineering field.

## MET 315LAB. Fluid

Dynamics Laboratory (1). Practical application of fluid mechanics principles, labs include fluid properties, buoyancy forces, Bernoulli and fluid energy, fluid friction, pump performance and related measurement systems. Lab is two hours per week. Associated lecture is four hours per week. Course will be offered every year (Winter). Prerequisite: MET 314LAB. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the practical aspects of fluid statics \& continuity by relating theory to various applications.
Apply the Bernoulli equation and the general energy equation and evaluate the energy content within a flowing fluid. Predict the flow rate of fluids in ducts and pipes for compressible and incompressible fluids. Calculate and use dimensionless numbers such as Reynolds number, lift and drag coefficients, etc. Demonstrate an understanding of terminology in the fluid dynamics technical field so that the may read, discuss and comprehend the relevant literature.
Demonstrate the ability to plan and conduct
Demonstrate the ability to select proper instrumentation to support experiments and demonstrate the ability to calibrate various sensors and
connect sensors to data acquisition systems. Perform computerized data analysis and be able to present and explain experimental results with clarity. Demonstrate the ability to write various types of test reports common in the engineering field.

## MET 316LAB. Applied Heat

Transfer Laboratory (1). Practical application of heat transfer principles. Lab work includes steady and unsteady state heat conduction, free convection, forced convection in tubes, forced convection over exterior surfaces, radiation heat transfer, change in phase heat transfer, heat exchangers, and heat pipes. Two hours laboratory per week. Prerequisite: MET 315LAB.
Upon successful completion of this course, the student will be able to:
Understand heat transfer concepts, predict temperatures and energy transfer rates for various thermal systems Demonstrate the ability to plan and conduct heat transfer experiments and operate related equipment Learn terminology in the heat transfer field so that they may read, discuss and comprehend the relevant literature Perform computerized data analysis and demonstrate the ability to write various technical reports with correct format, grammar, and good writing skills
MET 327LAB. Technical Dynamics Laboratory (1).
Practical application of dynamical systems including usage of state-of-the-art instrumentation and data recording systems. This lab is two hours per week with associated lecture that is four hours per week. Course will be offered every year (Spring). Prerequisite: ETSC 311. Upon successful completion of this course, the student will be able to:

Analyze physical principles to analyze motion of objects. Determine physical properties through experimental results. Interpret data from various types of instrumentation.

## MET 351LAB.

Metallurgy/Materials and Processes Laboratory (1).
Ferrous and nonferrous metals and alloys; polymeric, ceramic, and cellular materials; use of phase diagrams, cooling curves, stress-strain diagrams, and metallography. This course consists of two hours of lab each week plus an associated lecture for four hours per week. Corequisite: MET 351. Prerequisites: CHEM 111 or CHEM 181.
Upon successful completion of this course, the student will be able to:
Apply appropriate material best practices used in a work environment.
Select appropriate materials for a product.
Communicate rationale for their decision on design and selection of materials in a lab setting.

## MET 411LAB. Energy

Systems I Laboratory (1).
Practical application of energy system principles. Lab work includes power generation, energy reserves, fuels, reciprocating machines, internal combustion engines, rotating compressors, axial flow turbines, and gas turbine power. Two hours laboratory per week. Prerequisite: MET 316LAB.
Upon successful completion of this course, the student will be able to:
Develop an understanding of the practical aspects of thermodynamics by relating theory to various applications of energy conversions systems. Learn the fundamentals of various state-of-the art energy conversion systems such as steam power plants, spark ignition engines, compression ignition engines, gas turbines, and rocket engines.

Demonstrate an engineering understanding of refrigeration and air conditioning systems. Learn terminology in the energy conversion technical field so that they may read, discuss and comprehend the relevant literature.
Demonstrate the capability of predicting and measuring the performance of energy conversion systems. Demonstrate the ability to plan and conduct energy conversion experiments.
Perform computerized data analysis and be able to present and explain experimental results with clarity. Demonstrate the ability to select proper instrumentation to support experiments and have the ability to calibrate various sensors and connect sensors to data acquisition systems.
Become a better informed citizen who can take a leadership position when discussions arise dealing with energy issues.
Demonstrate the ability to write various types of test reports common in the engineering field.
MET 418LAB. Mechanical Design I Laboratory (1). Practical application of mechanical design principles. Lab work includes design and or evaluation of modern mechanical devices, concepts and systems. This course consists of two hours of lab each week plus an associated lecture for four hours per week. Course
will be offered every year (Fall). Prerequisite: ETSC 265 and ETSC 312 with a grade of C+ or higher. Co-requisite: MET 418.
Upon successful completion of this course, the student will be able to:
Function effectively as a member or leader on a technical team
Proceed from a design concept to a complete design including analysis, part drawings, and
material specification in a lab setting
Apply technical methodology in analyzing a complete design
in terms of weight and cost estimates, as well as 'buy' decision in a lab setting
MET 419LAB. Mechanical
Design II Laboratory (1).
Practical application of mechanical design principles. Lab work includes mechanical design principles for optimization of energy conversion systems via machine and power elements. Course will be offered every year (Winter). Prerequisite:
MET 418LAB. Co-requisite: MET 419.
Upon successful completion of this course, the student will be able to:
Proceed from a design concept to a complete design including analysis, part drawings, and material specification in a lab setting
Function effectively as a
member of leader on a
technical team
Application of loading failure theories
Apply technical methodology
in analyzing a complete design in terms of weight and cost estimates, as well as 'buy' decisions in a lab setting
MET 426LAB. Applications in Strength of Materials Laboratory (1). Topics support stress analysis and design. Laboratory activities include material strength, hardness, impact testing, strain gage technology, photoelasticity, ultrasonics, and eddy current. This course consists of two hours of lab each week plus an associated lecture for four hours per week. Course will be offered every year (Spring). Prerequisites: ETSC 312 and MET 351. Corequisite: MET 426.
Upon successful completion of this course, the student will be able to:
Conduct material testing in compliance with standards

Apply nondestructive techniques to determine structural integrity Critique material testing procedures for specific applications
MET 489A. Senior Project I
(4). This capstone course includes planning, design, and analysis (A), construction (B), and test and evaluation (C).
The students select an engineering problem and design a solution. Two lecture hours and four practice hours per week. Formerly MET 495A; students may not receive credit for both. Course will be offered every year (Fall).
Notes: Course must be taken in sequence. Failure to complete any course in this sequence, requires restarting the sequence at 489A. Prerequisites: MET 314 and MET 314LAB and MET 327 and MET 327LAB and MET 351 and MET 351LAB and MET 387 and MET 426 and MET 426LAB Co-requisites: MET 418 and MET 418LAB.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to apply mechanical engineering skills through optimized design, construction, and evaluation of their project. (ABET SO 3a)
Demonstrate an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies. (ABET SO 3b) Demonstrate an ability to design systems, components, or processes for broadlydefined engineering technology problems appropriate to program educational objectives. (ABET SO 3d) Demonstrate an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity. (ABET SO 3i)

Demonstrate a knowledge of the impact of engineering technology solutions in a societal and global context. (ABET SO 3j)
Apply organizational skills to promote progress. (ABET SO 3 k )
Communicate their progress and achievements through meetings, reports, and presentations. (ABET SO Mh)
MET 489B. Senior Project II (4). This capstone course includes planning, design, and analysis (A), construction (B), and test and evaluation (C). The students select an engineering problem and design a solution. Two hours of lecture and four hours of practice. Formerly MET 495B; students may not receive credit for both. Course will be offered every year (Winter). Notes: Course must be taken in sequence. Failure to complete any course in this sequence, requires restarting the sequence at 489A. Prerequisite: MET 489A.
Upon successful completion of this course, the student will be able to:
apply mechanical engineering skills through optimized design, construction, and evaluation of their project. ABET SO 3a. demonstrate an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies. ABET SO 3b. demonstrate an ability to design systems, components, or processes for broadlydefined engineering technology problems appropriate to program educational objectives. ABET SO 3d. demonstrate an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity. ABET SO 3i.
demonstrate a knowledge of the impact of engineering technology solutions in a societal and global context. ABET SO 3 j .
apply organizational skills to promote progress. ABET SO 3 k .
communicate their progress and achievements through meetings, reports, and presentations. ABET SO Mh.
MET 489C. Senior Project III (4).
This capstone course includes planning, design, and analysis (A), construction (B), and test and evaluation (C). The students select an engineering problem and design a solution. Two hours of lecture and four hours of practice. Formerly MET 495C; students may not receive credit for both. Course will be offered every year (Spring). Notes: Course must be taken in sequence. Failure to complete any course in this sequence, requires restarting the sequence at 489A. Prerequisite: MET 489B.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to apply mechanical engineering skills through optimized design, construction, and evaluation of their project. ABET SO 3a.
Demonstrate an ability to select
and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies. ABET SO 3b. Demonstrate an ability to design systems, components, or processes for broadlydefined engineering technology problems appropriate to program educational objectives. ABET SO 3d. Demonstrate an understanding of and a commitment to address professional and ethical responsibilities
including a respect for diversity. ABET SO 3i. Demonstrate a knowledge of the impact of engineering technology solutions in a societal and global context. ABET SO 3j.
Apply organizational skills to promote progress. ABET SO 3k.
Communicate their progress and achievements through meetings, reports, and presentations. ABET SO Mh.
MGT 200. Essential Skills for Business Professionals (5). This course develops the skills and insights necessary to effectively acquire, synthesize and disseminate knowledge as a business decision maker skills essential for success in business school and standard abilities in high performance professionals. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Identify high quality sources to analyze and critique arguments, evaluate their rhetorical effectiveness and use underlying assumptions to effectively support or discredit positions on a given topic. Establish a position on an issue by developing a focused assertion based on a shared assumption, presenting evidence in support of a line of reasoning, addressing divergent stances on the issue, and using a variety of rhetorical appeals. Craft and present prose conforming to academic conventions and to expectations regarding clarity, coherence, and unity including citing and documenting sources precisely and effectively according APA format to: 1) develop strategies to address community issues \& 2) evaluate multiple courses of action, and 3) apply the concepts and skills to create value in the community. Describe the interrelationship between style and meaning and
make adjustments to style to enhance meaning in the pursuit of becoming more effective at writing, speaking and developing social \& professional relationships. Recognize, appraise, and incorporate the skills needed to be able to modify personal behaviors, routines, and habits as well as social and professional friendship networks to propagate personal, economic, social and professional well-being.
MGT 288. Intellectual Property and Prototype Development for Products and Services (3). This course develops the skills for service/product prototyping and also for filing/researching patent and copyright intellectual property. Students must be 18 or older. Open to all majors. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: MGT 287 or permission by instructor. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of fundamental terminology and concepts used in the design process, prototyping and intellectual property protection. Recognize and use the steps of the prototype design process to develop a market tested prototype.
Recognize and apply the methods for finding existing art/technology use it to request permissions to use and to identify new ideas. Apply the steps in the application for IP protection trademarks, copyrights and patents.
Demonstrate an improved propensity for entrepreneurial thinking via dimensions such as hope, resiliency, effectual thinking and self efficacy for entrepreneurial activities.
MGT 289. Business Plan
Development (3). This course develops the skills for developing, writing and presenting a business plan for
profit/non-profit organizations. Students must be 18 or older. Open to all majors. Course will be offered every year (Fall, Winter, and Spring).
Prerequisite: MGT 287 or permission by instructor. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the basic functional sections of a business plan mean well enough to use them in analyses.
Relate fundamental elements of a business model depending on professional stakeholder ie. banker, investor, partner, supplier, regulator. Evaluate others' work, provding advice, while assessing the value of others' advice to themselves. Demonstrate an improved propensity for entrepreneurial thinking via dimensions such as hope, resiliency, effectual thinking and self efficacy for entrepreneurial activities.
MGT 298. Special Topics (16). May be repeated if subject is different.
MGT 299. Seminar (1-5).
May be repeated if subject is different.
MGT 380. Organizational Management (5). Principles of management class for nonbusiness majors. Introduces students to the history and development of management ideas and contemporary practice. Overview of all the major elements of the managerial functions. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: this course is only available to nonbusiness majors.
Upon successful completion of this course, the student will be able to:
Compare and contrast the historical vs. contemporary principles of management that underlie the cultures and traditions of groups and organizations.
Describe theories of individual dispositions, social exchange,
and team processes, and how these theories were developed. Explain and apply various empirical methods to investigate how individual dispositions, social exchange, and/or team processes influence individual behaviors and their outcomes.
Analyze the causes and effects of individual behaviors using theories of individual dispositions, social exchange, and/or team processes. Identify current issues related to social diversity, ethics, the global economy, and how these issues impact managerial practices.
MGT 382. Principles of
Management (5). This course introduces students to the macro (e.g., structure and strategy) and micro (e.g., human behaviors and leadership) principles of Management. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: ECON 201 and admission to a CB major, or, admission to a College of Business Graduate Program. Upon successful completion of this course, the student will be able to:
Describe the basic concepts of management
Recognize the different forms of organization structure and control systems.
Define the basic functions of human resource management. Compare and contrast the different approaches to motivation.
Differentiate the various leadership styles.
Recognize the challenges of team work and communication. Identify managerial issues related to diversity, ethics, and the global economy.

## MGT 383. Contemporary

Management Practices
(Department put course on
reserve $3 / 31 / 15$.) (5).
Exposure to and experience with contemporary management techniques and practices. Conceptual foundations are examined
through case work, applied field activities, and team projects. Department put course on reserve 3/31/15. Prerequisites: MGT 382 and admission to either the business administration or accounting major.
MGT 384. Introduction to International Business (5). Principles of International business in culture, diversity, ethics, sustainability, politics, economics, finance, operations, human resources, and global markets. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: MGT 380 or MGT 382.
Upon successful completion of this course, the student will be able to:
Identify, analyze, and evaluate global, national, and local challenges related to globalization and sustainability.
Describe and illustrate the roles of ethics, sustainability, diversity and social justice in the world's political economy.
Address social, cultural, and political issues and their impacts on regional economic development.
Examine factors in the international consumer markets, financial markets and labor markets, and analyze their impact on the strategic decision making process in international organizations. Using interdisciplinary perspectives and conceptual models, identify the critical problem of an international organization, formulate and implement a sustainable solution to the problem.
MGT 386. Principles of Organizational Behavior (5)
Applied and conceptual analysis of behavior within organizations. Involves leadership, motivation, communications, group processes, decision-making, climate, and culture. Course
will be offered every year (Fall, Spring). Prerequisites: MGT 380 or MGT 382.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of and the ability to apply key concepts in the field of organizational behavior to individuals, groups, and organizations.
Demonstrate an understanding of major theories of justice, power, ethics, trust, motivation, and leadership as they relate to individuals, groups, and organizations within a business context. Examine approaches to Organizational Behavior that involve a range of quantitative, qualitative, and experimental methods.
Apply management theories through a project involving the analysis of organizational data and the application of theory to explain organizational dynamics such as power differences, diversity and inequity.
Explore approaches to diversity and inequity within the field of business and examine the role they play in the development of teams and organizations

## MGT 389. Business and

Society (5). This course
interweaves ethics into a survey of topic and issues pertinent to the business, government, and society relationship. Major themes are social responsibility, business ethics, ethical decision-making, sustainability, and ethical policy and practice. Course will be offered every year (Fall, and Spring).
Prerequisites: MGT 380 or MGT 382.
Upon successful completion of this course, the student will be able to:
Identify varieties of capitalist societies and explain how they function as a global system. Explain why the institution of corporation was created, and the role it is intended to play in capitalist societies.
Identify the different forms of corporations and businesses,
and explain their intended functions and how they are governed and make decisions. Understand different theoretical perspectives on the societal roles and relationships of business, government, and civil society.
Explain different perspectives and theories on how business organizations create and destroy value for their stakeholders, and influence public discourse and politics. Articulate different ways of measuring the social, environmental, and economic impacts of business on society Critically apply theories to analyze current issues related to the role and impacts of business in society. Describe how a diverse society imposes a range of often conflicting expectations on business organizations, and be able to explain how companies manage these expectations.
MGT 394. Legal
Considerations in Sport
Business (5). An exploration of the relationship between sports and the law. Issues to be explored include liability, legal rights of employees and athletes, as well as managing the legal risk in the sports profession. Course will be offered every year (Fall). Prerequisites: BUS 241 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25; OR (declaration of a sports business minor or certificate); OR (declaration of a sport management major).
Upon successful completion of this course, the student will be able to:
Understand history and development of American court and legal systems and
comprehend the terminology and procedure used in legal proceedings.
Apply knowledge of various areas of the law to individuals who are involved in the management of sports including contract, tort, constitutional, statutory, regulatory and case law. Utilize risk management strategies to minimize or avoid legal liability in sports business settings.

## MGT 395. Leadership in Business Organizations (5).

 Examination of theories and practices of leadership in business organizations. Course will be offered every year (Fall, Spring).Upon successful completion of this course, the student will be able to:
Read and respond in both oral and written form to literary works on Leadership from various cultures.Examine leadership from a historical perspective, tracing the changes in leadership thought and using it to help synthesize ideas in current leadership theory.
Examine leadership from a historical perspective, tracing the changes in leadership thought and using it to help synthesize ideas in current leadership theory.
Compare and contrast alternative ways of understanding, describing, and interpreting the leadership experience from both the leader's and follower's perspective, including the role of inequity and power differences on these relationships Identify their own linguistic, conceptual, and normative presuppositions regarding leaders, leadership, and followership, including assumptions regarding social justice, equity, power differences, and trust. Analyze a variety of factors that shape one's experience as a leader including the role of
language, philosophy, history, and culture
Recognize and evaluate the impacts of leadership on one's personal, social, professional, and economic well-being, and how these impacts connects to social justice.
Examine how gender has been treated by various leadership theories and its implications for social justice.
MGT 396. Individual Study
(1-6). May be repeated if subject is different.
MGT 397. Honors (1-12).
Prerequisite: admission to department honors program.
MGT 398. Special Topics (1-
6). May be repeated if subject is different.
MGT 399. Seminar (1-5).
May be repeated if subject is different.
MGT 477. Global Leadership
and Culture (5). Leadership
and developmental
relationships across cultures,
cultural influences on
leadership attributes,
behaviors, and performance;
leader development, self-
assessment of leader competencies. Prerequisites:
(MGT 382 and admission to a
College of Business major
AND completion of the
College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C - grade in each course and a minimum collegiate GPA of 2.25) OR
(MGT 380 and admission to the Integrated Energy
Management Program).
Upon successful completion of
this course, the student will be able to:
Describe managerial roles in the international context.
Identify globally effective
leadership attributes and
behaviors.
Evaluate the validity of
Western and non- Western
leadership models and theories
in the context of globalization and international leadership. Demonstrate knowledge of one's own culture and identity through a cross- cultural perspective.
Operationalize one's self as a leader in various cultures. Explain international approaches to developmental relationships and developing global leaders.
MGT 478. Leadership
Capstone (5). Culminating learning experience that explores knowledge of effective leadership acquired through all previous leadership curriculum. Involves application and evaluation of: students' leader competencies, knowledge of leadership theory, values, and ethics. Course will be offered every year (Fall and Spring). Prerequisites: MGT 382, MGT 395, and MGT 483 all with a grade of C or higher AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Formulate coherent framework for integration of relational leadership theory, understand leadership experiences of self and others.
Use relationship-building skills with individuals, task groups, professional associations, community associations, boards, advocacy groups, etc. Illustrate role of emotional intelligence in leadership, identify students' own emotional intelligence. Implement positive conflict resolution techniques. Identify the role of values and ethics in leadership.
Demonstrate ability to effectively lead others in a
business, university, or community project.
Evaluate students' own leader effectiveness.
Identify goals and select and implement interventions that will enhance the functioning of a population, organization and/or community group. Assess and demonstrate knowledge regarding various leadership styles across contexts, situations, and applications (e.g., within and across age, race and ethnicity; relationships, cultural contexts, and industries).
MGT 482. Advanced Organizational Behavior (5).
MGT 482 builds on the foundations and theories of MGT 386 by providing students with an advanced understanding of the field of organizational behavior. Students will be challenged to develop and improve their leadership knowledge and skills, and they will also learn to apply, integrate, and problem-solve using emerging management research. Prerequisites: MGT 386 and admission to a College of Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252
and BUS 221 and BUS 241
and MATH 153 or MATH 154
or MATH 170 or MATH 172
or MATH 173 and ECON 201)
with a minimum C - grade in
each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Have an advanced understanding of research in organizational behavior as well as related fields such as social, cognitive, and personality psychology.
Apply concepts learned in this course in real world managerial problem solving. Critically analyze different management strategies Demonstrate improved leadership and team-based knowledge and skills.

MGT 483. Decision Making and Organizational Change
(5). This course analyzes the synergetic relationship between leadership, decision making and organizational change. It combines theory and applied practice to inform students of current studies on how effective decisions are made, how bad decisions can be avoided and how to implement change resulting from good decisions. The dual aspects of the decision-making process: intuitive and analytical will be covered, and the respective values of both will be highlighted. Prerequisites: MGT 382 and admission to a
College of Business major
AND completion of the
College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C- grade in each
course and a minimum
collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Understand and apply motivational strategies to increase group performance and lead change.
Enhance the efficiency and productivity of team work. Analyze and leverage personal and organizational networks. Improve their strategic thinking and planning, particularly in terms of how to align organizational mission, strategy, culture, and performance management.
Analyze leadership opportunities and barriers-for themselves and when advising others.
MGT 484. International
Management (5). A
comparative study of management in selected countries as well as an analysis of key managerial problems encountered in the multinational corporation. Prerequisites: MGT 382 and
admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Understand the context of international management. Appreciate the importance of global strategic planning and how it differs from a domestic only focus.
Understand how
national/regional culture impacts on managing an international firm.
Comprehend the challenges of global communication and negotiations.
Articulate the challenges of managing a multicultural team and consider strategies to leverage cultural diversity. Reflect how to manage global managers.
MGT 487. Entrepreneurism and Small Business Management (5).
Investigation of entrepreneurism and small business management issues. Students learn to perform feasibility studies and develop business plans. Small business challenges in marketing, finance, etc., will also be addressed. Prerequisites: MGT 382 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:

Conduct a feasibility analysis of a new business venture that will assist in determining if the opportunity should be developed and is likely to attract investment capital. Demonstrate an understanding of the strategic and tactical fundamentals of managing an entrepreneurial business and how these are different from managing the same functions in larger types of business and organizations.
Demonstrate managerial diagnostic and analytical skills as well as an understanding of how to make appropriate decisions for generational transitions and harvest/exit strategies for new ventures that mature beyond the start-up phase.
Prepare and present a model business plan for a new business venture.
MGT 488. Plunge Class (3).
In MGT 488 students will launch their ventures in completion of entrepreneurship minor. Mandatory $\$ 250$ to $\$ 1000$ funds required to file for state/federal permits/licensing depending if alone or with partner(s). May be repeated up to 12 credits. Course will be offered every year (Fall, Winter, and Spring).
Prerequisites: (ACCT 251 or ACCT 301) and (MKT 360 or MKT 362) and MGT 200 and MGT 287 and MGT 288 and (MGT 289 or MGT 487). Upon successful completion of this course, the student will be able to:
Distinguish the philosophies of the types of revenue based organizational models and governmental based organizational models. Apply the principles of causal and effectual reasoning. Employ the fundamental factors and steps needed starting and growing an organization well enough to start an organization. Recognize the concepts of cognitive bias, retrospective rationality to explain their own behavior and hazards they may
experience in their own decision making.
Demonstrate an improved propensity for entrepreneurial thinking via dimensions such as hope, resiliency, effectual thinking and self efficacy for entrepreneurial activities.
MGT 489. Strategic
Management (5). Focuses on problem solving and decision making in the strategic management of the total enterprise. Integrates lessons from Accounting (ACCT), Economics (ECON), Finance (FIN), Information Systems (MIS), Management (MGT), Marketing (MKT), and Supply Chain (SCM). Course will be offered every year (Fall, Winter, Spring, and Summer).
Prerequisites: admission to a
College of Business Major
AND Completion of the
College of
Business Foundation Courses
(ACCT251 and ACCT252
and BUS221 and BUS241 and
ECON130 or MATH130 and
ECON201 and MATH153 or
higher) with a grade of C - of
higher AND completion of
College of Business Core
Courses (ECON 202 and FIN
370 and SCM 310 and MIS
386 and MKT 362 and MGT
382 and COM301
and ENG311) with a minimum grade of a C- in each course and a minimum collegiate GPA
of 2.25 AND senior standing
AND completed application
for graduation; (OR admission
to a College of Business Graduate Program).
Upon successful completion of this course, the student will be able to:
Reflect upon, integrate, and apply knowledge of academic writing, quantitative reasoning, and business principles. Apply higher order critical thinking and problem solving skills, in identifying a problem, proposing a solution, and evaluating its effectiveness. Synthesize the results of the strategic analyses, propose a strategy in response to the
problem identified, and present the strategy and its outcomes. Demonstrate clear written and oral communication strategies and techniques.
MGT 490. Management
Internship (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies focusing on management related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By department permission. May be repeated up to 20 credits. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa. Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Substantive discipline-based outcomes developed by individual students in consult with faculty advisor
MGT 493. Management Boot
Camp (1-6). Supervised field experience seminar focused on management organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. Grade will either be S or U . Permission of instructor. May be repeated up to 6 credits. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp
Exhibit professional behavior and appropriate business skills in industry setting.
Establish a professional network within the industry professionals

Illustrate an awareness of the organization(s) participating in the boot camp.
MGT 496. Individual Study
(1-6). May be repeated if subject is different.
MGT 497. Honors (1-12).
Prerequisite: admission to department honors program.
MGT 498. Special Topics (1-
6). May be repeated if subject is different.
MGT 499. Seminar (1-5).
May be repeated if subject is different.
MIS 298. Special Topics (1-
6). May be repeated if subject is different.
MIS 299. Seminar (1-5). May
be repeated if subject is different.

## MIS 320. Business Process

Analysis and Systems (5).
Addresses the role of business processes and enterprise information systems employed by industry. Employs an industry simulation to illustrate the integrative impact of business decisions involving forecasting, operations, distribution, purchasing, finance and other traditional functions. Course will be offered every year. Course will not have an established scheduling pattern. Prerequistes: BUS 102 or IT 101 or CS 101, or by permission of FSCM department chair. Upon successful completion of this course, the student will be able to:
Recognize the importance of business processes and the role of information in supporting process integration in modern organizations
Diagram fundamental business processes such as accounting, procurement, fulfilment, production, inventory and warehouse management, and material planning. Outline the various types of data necessary to support different business processes. Apply the tools and systems available in a recognized enterprise resources planning system to collect and analyzed
business processes in a simulated environment. Prepare and apply changes to decision variables to improve performance in a simulated operating environment involving demand, distribution, operations, purchasing, inventory and other related processes.
Prepare and apply changes to decision variables to improve performance in a simulated operating environment involving demand, distribution, operations, purchasing, inventory and other related processes.

## MIS 386. Management

Information Systems (5). Use of computer-based information systems in all functional areas of business. Computer and information technology, resources, management, and end-user decision making, and system development. Prerequisites: BUS 221 and admission to a college of business major; or admission to a College of Business Graduate program.
Upon sucessful completion of this course, the student will be able to:
Recognize basic information system concepts as applied to business operations and management.
List the major components of a computer system, including hardware, software, operating systems and operating environments as they apply to information systems. Evaluate select, and use computer based information systems from a management perspective.
Distinguish the functionality of the various hardware and software components of information systems.
Create tools commonly used in basic MIS applications such as spreadsheet, databases and websites.
Explain how to utilize largescale computer applications systems to assist with business management and operations.

Prepare assignment related to the above objectives as an individual or in a team environment.
MIS 396. Individual Study
(1-6). May be repeated if subject is different.
MIS 397. Honors (1-12).
Prerequisite: admission to department honors program.
MIS 398. Special Topics (1-
6). May be repeated if subject is different.
MIS 399. Seminar (1-5). May be repeated if subject is different.
MIS 420. Database Systems in Business (Department put course on reserve $3 / 31 / 2015$.)
(5). Database systems theories. Logical data modeling, physical database design and implementation for business process improvement, and effective business decision making. Structured query language. Department put course on reserve $3 / 31 / 2015$. Prerequisite: MIS 386 and admission to either the business administration or accounting major. Upon successful completion of this course, the student will be able to:
Explain database concepts, database system components and database systems development processes. Identify different database architectures. Construct a data model, and implement the data integrity and normalization. Become proficient in the structured query language. Generate business oriented database forms and reports. Recognize emerging technologies in the database field, and prepare for opportunities of new database architecture to meet the challenges and demands of tomorrow's business. Learn the value of teamwork in building database management systems by doing a group project.
Increase productivity by improving the business process
while enhancing a firm's database management systems.
MIS 446. Systems Analysis and Design in Business (5). Methods for the analysis and assessment of business processes and subsequent planning, configuration and implementation of supporting enterprise system modules. Incorporates systems development tools, modeling, process redesign; applications configuration. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: MIS 320. Upon successful completion of this course, the student will be able to:
Differentiate between the role of configuration and customization in the design and implementation of an enterprise resource planning system (ERP).
Explain how processes, structure, data and business rules affect how to configure an ERP system to address requirements of an organization.
List the most common functional areas of an organization addressed when designing and configuring an ERP system. Formulate the requirements to configure each component of an enterprise resource planning system to meet the needs of a specific organization. Perform the actions necessary to configure an ERP system to support the management structure and operation requirements of a specific organization.
Evaluate how changes in an organizations structure and/or operations may require changes to an ERP system configuration.
Implement changes to an ERP system configuration to match changes in a specific organizations structure and operations.
Outline the steps to properly test, debug and document
changes in ERP systems configuration.
MIS 460. Applied Business
Analytics (5). Application of business intelligence tools and techniques to retrieve and analyze data and implement business decisions in a dynamic simulated environment. Employs leading industry based enterprise management, business intelligence tools and simulations. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: (MIS 386 with a minimum grade of C AND admission to a college of business major) AND completion of the college of business foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (MIS 386 with a minimum grade of C AND declaration of any minor or certificate offered through the College of Business); OR (MIS 386 with a minimum grade of C AND admission to the Integrated Energy Management Program) OR (MIS 320 with a minimum grade of C and declaration of any minor or certificate offered through the College of Business)
Upon successful completion of this course, the student will be able to:
Discuss the role of data in supporting management decision making.
Apply the fundamentals of data mining technologies to common business decisions.
Prepare a data mining application using industrybased enterprise management system.
Distinguish among the various data warehousing models. Create a series of data analysis to address specific business decisions related to
management, marketing, manufacturing, supply chain, finance, accounting and human resources.
Create a series of performance
dashboards and employ the dashboards to evaluate performance, assess options and apply changes to improve performance in a simulated environment.

## MIS 490. Management Information Systems <br> Internship (1-12). An

 individualized, contracted field experience with business, industry, government, or social service agencies focusing on management information systems related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.May be repeated for credit. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa. Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Develop substantive disciplinebased outcomes in consult with faculty advisor
MIS 493. Management Information Systems Boot Camp (1-6). Supervised field experience seminar focused on management information system related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. Grade will either be S or U . Permission of instructor. May be repeated up to 6 credits. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:

Prepare a research brief on each organization participating in the boot camp
Exhibit professional behavior and appropriate business skills in industry setting.
Establish a professional network within the industry professionals
Illustrate an awareness of the organization(s) participating in the boot camp.

## MIS 496. Individual Study

(1-6). May be repeated if subject is different.
MIS 497. Honors (1-12).
Prerequisite: admission to department honors program.
MIS 498. Special Topics (1-
6). May be repeated if subject is different.
MIS 499. Seminar (1-5). May
be repeated if subject is different.
MKT 298. Special Topics (1-
6). May be repeated if subject is different.
MKT 299. Seminar (1-5).
May be repeated if subject is different.
MKT 360. Principles of
Marketing (5). Principles of marketing class for nonbusiness majors. Explores the function and processes of marketing, introducing students to the fundamental marketing concepts. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: this course is only available to nonbusiness majors.
Upon successful completion of this course, the student will be able to:
Demonstrate a basic understanding of the fundamental concepts of marketing
Explain and analyze the importance of social, cultural, and economic information and change to the business community.
Explain how marketing uses psychological, social, cultural, and situational factors to create value for customers.
Analyze the effects of culture and social media on political
marketing, consumer behavior, and society.
Explore and describe the different qualitative and quantitative market research techniques and their potential impact on society.
Explain and describe the impact of the sustainability movement on inviduals, the business community, and society through product development/management, packaging, and corporate social responsibility.

## MKT 362. Essential

Marketing Concepts (5). Introduction to the principles of marketing, creating, communicating, and delivering superior customer value, choosing target markets, managing customer relations. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: ECON 201 and BUS 221 and admission to a College of Business major; OR, admission to a College of Business Graduate Program.
Upon successful completion of this course, the student will be able to:
Illustrate the importance of customer value. Explain the importance of market segmentation, targeting, and positioning.
Investigate the role of product
strategies within the marketing mix.

Compare and contrast
promotion strategies within the marketing mix.
Compare and contrast
distribution (place) strategies
within the marketing mix. Analyze the role of price strategies within the marketing mix.

MKT 364. Marketing
Promotion Management (5).
Communication problems of marketing goods and services to consumers and industrial buyers; advertising management, personal selling, and sales promotion; analysis for the promotion mix; and public interest in marketing communication. Prerequisites:

MKT 362 and admission to a
College of Business major
AND completion of the
College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a
minimum C- grade in each
course and a minimum
collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of communication theories and their contribution to marketing communication strategies.
Application of communication theories to the design of advertising, sales promotion, direct marketing, personal selling and public relations strategies.
Identify and apply relevant marketing communication strategies to develop consistent, coherent brand message that resonates with targeted consumers.
Propose an integrated marketing communication strategy for a variety of business problems or contexts. Identify the differences between business to consumer and business to business communication strategies.
MKT 365. International
Marketing (5). Marketing functions involved in doing business internationally, environmental conditions affecting international trade, and problems of securing employment internationally. Prerequisites: (MKT 362 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25) OR
(MKT 360 and admission to
the Integrated Energy Management Program). Upon successful completion of this course, the student will be able to:
Identification and application of the international environment as it effects marketing strategy, including history, political structure, economics and trade policy. Application of marketing mix concepts and strategies to international marketing problems.
Conduct international market analysis.
Articulation of the marketing challenges facing global businesses.
MKT 370. Sports Marketing
and Sponsorship (5). This course takes a strong industry focus to the study of sports marketing. Work examines the range of promotional strategies and tactics used by different leagues/sport businesses to attract and retain sports fans. Additional topics include the nature of effective sports sponsorship campaigns. Course will be offered every year (Fall and Spring). Prerequisites: (MKT 362 and admission to a College of Business major
AND completion of the
College of Business
Foundation courses (ACCT
251 and ACCT 252 and BUS
221 and BUS 241 and MATH
153 or MATH 154 or MATH
170 or MATH 172 or MATH
173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (MKT 360 with a minimum Cgrade and declaration of a sport business minor or certificate);
OR (MKT 360 with a
minimum C- grade and
declaration of a sport
management major).
Upon successful completion of this course, the student will be able to:
Identification of marketing mix strategies and concepts that comprise a sports marketing plan.

Articulation of the sport product experience.
Application of market segmentation and brand positioning to sports business. Development presentation and proposed implementation of a marketing plan for a sport business.
Differentiate sport consumption from other types of consumption and apply customer relationship management strategies to sport business.
Articulation of the challenges facing sport business locally, regionally, nationally, and globally.
MKT 371. Sponsorship and Promotion in Sport Business
(5). Examination of sport sponsorship, sales, implementation, and evaluation; communication between sport sellers and consumers through advertising, sales promotion, public relations, and other forms of communication. Course will be offered every year (Summer). Prerequisites: (MKT 362 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25) OR (MKT 360 with a minimum grade of C- and declaration of a sport business minor or certificate); OR (MKT 360 with a minimum grade of C and declaration of a sport management major). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the foundation and use of sports sponsorship from both a sport organization and corporate sponsor perspective. Develop, implement and evaluate a sports sponsorship program.

Demonstrate knowledge of marketing communication theory and its application in the sport context, particularly in the development, implementation and evaluation of sport promotions. Develop, implement, and evaluate a sports promotion program.
MKT 372. Revenue Generation and Finance in Sport Business (5).
Examination of historical and current practice in revenue generation and financing of sport organizations, including public and private sources of revenue. Course will be offered every year (Winter).
Prerequisites: (MKT 362 and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25) OR (MKT 360 with a minimum grade of C - and declaration of a sport business minor or certificate); OR (MKT 360 with a minimum grade of C and declaration of a sport management major).
Upon successful completion of this course, the student will be able to:
Learn the historical development of revenue generation and financing of sport activities and organizations.
Identify and recommend the use of appropriate public subsidies as sources of revenue for sport activities, facilities, and organization. Identify and recommend the use of appropriate private revenue sources available to sport organizations, including ticket sales, fund-raising, concessions, licensing, media rights, sponsorship, and naming rights.

Develop, implement and evaluate the revenue streams available to an existing or new sport facility or organization.

## MKT 376. Foundations of

 Digital Marketing (5).Explores the impact of digital media on consumer behavior and marketing strategies. Provides an overview of digital metrics and analytics, online business models, future trends, and ethical implications of digital marketing. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: MKT 360 or MKT 362.
Upon successful completion of this course, the student will be able to:
Identify and analyze
fundamental digital marketing concepts.
Analyze online business models.
Identify social, cultural, and ethical factors and dilemmas that impact digital marketing strategies.
Compare digital with
traditional marketing.
MKT 396. Individual Study
(1-6). May be repeated if subject is different.
MKT 397. Honors (1-12).
Prerequisite: admission to department honors program.
MKT 398. Special Topics (16).

MKT 399. Seminar (1-5).
May be repeated if subject is different.

## MKT 468. Consumer

Behavior (5). An introduction to analysis of the consumer as a basis for marketing decisions. The analysis concerns who buys what, how the consumer uses the product, the significance of the product to the consumer, and the buying process. Prerequisites: MKT 362 with a grade of C or higher and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172
or MATH 173 and ECON 201)
with a minimum C - grade in
each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Critically analyze the internal and external influence on consumption, and correspondingly identify appropriate branding and product strategies. Evaluate various theoretical frameworks for explaining buyer behavior. Identify and apply relevant consumer behavior theories to propose an appropriate brand position for a selected product or service.
Identify and apply relevant consumer behavior theories to evaluate their own consumption.
Identify the differences between individual buyer behavior and organization buyer behavior. Apply the basic principles underlying human behavior to a variety of business contexts and situations.
MKT 469. Market Research
(5). Application of research to economic and business problems; tools of research design; planning investigations; gathering, organizing, and interpreting data; and presentation of findings. (Not open to students with credit in ECON 426.) Prerequisites: MKT 362 with a grade of C or higher and admission to a College of Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252
and BUS 221 and BUS 241
and MATH 153 or MATH 154
or MATH 170 or MATH 172
or MATH 173 and ECON 201)
with a minimum C-grade in
each course and a minimum collegiate GPA of 2.25 .
Upon successful completion of this course, the student will be able to:
Articulate the need and importance of decision making
in marketing, inherent difficulties and pitfalls, and the importance of research in marketing decision-making. Compare and contrast commonly used techniques in the collection and analysis of marketing research information.
Apply common statistical and quantitative techniques to aid in marketing management decision making.
Describe and explain the various ways marketing research information aids management decision making. Implement the research process as an information gathering technique to aid the marketing decision process.
Use marketing research techniques to investigate and report on a business-related problem or opportunity.
MKT 470. Marketing
Problems and Policy (5). The capstone course for the marketing specialty. Use case analysis and other techniques to develop marketing decision skills and policy determination abilities. By permission. Prerequisites: MKT 362 and MKT 468 and MKT 469 with a grade of C or higher and admission to a College of Business major AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Critically analyze the internal and external marketing environments to identify and implement strategic marketing decisions (product, price, place, promotion, brand, position, etc.).
Evaluate various theoretical frameworks for integrating marketing activities and setting
organizational marketing strategy.
Identify, analyze, select and implement (propose implementation) an appropriate brand position for a selected product or service. Employ relevant analytical frameworks or approaches to assess major types of marketing problems (i.e., product, decisions, pricing decisions, distribution decisions, etc.).
Develop and present a comprehensive marketing plan for a selected marketing problem.
MKT 476. Advanced Digital Marketing (5). Application of digital marketing theories and concepts to real-world cases and projects. Prerequisites: MKT 362 and MKT 376 and admission to a College of Business major AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C - grade in each course and a minimum collegiate GPA of 2.25 . Upon successful completion of this course, the student will be able to:
Identify, apply and recommend appropriate digital marketing strategies.
Identify, apply and recommend appropriate analytics to evaluate digital marketing campaigns.
Develop and implement digital marketing campaigns on appropriate technological platforms.
Evaluate the impact of external factors on digital marketing strategies.
Communicate about digital marketing concepts and strategies within a team and to an external audience.
MKT 490. Marketing
Internship (1-12). An
individualized, contracted field experience with business, industry, government, or social
service agencies focusing on marketing related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By department permission. May be repeated up to 20 credits. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa. Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Substantive discipline-based outcomes developed by individual students in consult with faculty advisor
MKT 493. Marketing Boot
Camp (1-6). Supervised field experience seminar focused on marketing related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. Grade will either be S or U . Permission of instructor. May be repeated up to 6 credits. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp Exhibit professional behavior and appropriate business skills in industry setting.
Establish a professional network within the industry professionals Illustrate an awareness of the organization(s) participating in the boot camp.
MKT 496. Individual Study (1-6). May be repeated if subject is different.
MKT 497. Honors (1-12).
Prerequisite: admission to department honors program.

MKT 498. Special Topics (16). May be repeated if subject is different.
MKT 499. Seminar (1-5).
May be repeated if subject is different.
MSL 101. Foundations of Officership (1). Introduces students to issues and competencies that are central to a commissioned officer's responsibilities. Establishes framework for understanding officership, leadership, Army values, and life skills, such as physical fitness and time management. Open to all students.
Upon successful completion of this course, the student will be able to:
Apply leadership principles to current issues, physical fitness, and time management.
Recognize issues and competencies central to officership, leadership, and Army values.
Know and describe key aspects of the US Army, to include the Army National Guard (ARNG) and US Army Reserve (USAR), as it relates to accomplishing the duties of a commissioned officer (Officership). Explain the role of the US Army in war and peace and as it relates to the duties of a commissioned officer. Discuss current world affairs and their impact on military planning and legislation. Compare the roles of Officers and Non-Commissioned Officers when executing their duties.
Explain Army customs, courtesies, and traditions and how to apply them (Values \& Ethics).
Recognize the role of time management and how it relates to long range, intermediate, and immediate goals.
Describe the four key fundamentals of basic rifle marksmanship.
Identify leadership theory and principles.
MSL 102. Basic Leadership
(2). Establishes foundation of
basic fundamentals such as problem solving, communications, briefings, effective writing, goal setting, techniques for improving listening and speaking skills, and an introduction to counseling. Open to all students.
Upon successful completion of this course, the student will be able to:
Define leadership.
Describe and understand the
four factors of leadership.
Describe and understand the eleven principles of leadership.
Describe the BE-KNOW-DO
framework of current Army leadership doctrine. Describe and understand the nine competencies of leadership. Relate the importance of character to the leadership process.
Explain how the professional
Army ethic evolves from basic national values.
Describe the four fundamental values of the Army ethic. Relate individual values to the professional Army ethic. Relate how the Oath of Office and the Officer's Commission statement reflect national values, the professional Army ethic and individual values. Define motivation and explain how role models, cohesion, needs, rewards, punishment and soldier development affect and influence motivation. Describe the nature of groups and explain why people join them.
Explain the stages of team development and the leader's responsibilities in each.
Describe the process by which an individual soldier becomes a member of a team. Determine the stages of development of a soldier team and develop a plan to enhance team development.
Describe the communications process.
Describe the communications barriers affecting the sending and receiving of messages and explain how to overcome these barriers.

List and describe the characteristics of good listening and explain active listening.
Identify the leader's
responsibilities for soldier development through counseling.
Describe the counseling process to include the different counseling approaches, the communications process, and the problem solving process. Describe the types of counseling and their relationship to soldier development. Apply the types of counseling. Explain how the values and obligations of the Code of conduct apply to military personnel as a set of professional ethics in a captive situation.
Explain how Articles I thru VI of the Code of Conduct apply to military personnel. List and describe the five paragraphs of an Operations order.
MSL 103. Advanced
Leadership (2). Studies in problem solving, communications, effective writing, goal setting, techniques of listening, advanced speaking skills and professional counseling. Open to all students.
Upon successful completion of this course, the student will be able to:
Define and understand the definition of leadership.
List and discuss the 11
Leadership Principles.
Describe the 4 Factors of Leadership.
Arrive at the designated location within the time limits given by your commander. Conditions which affect task standards may be imposed upon you while moving from one location to another: the amount of time you have to travel, a specific route you must follow, contact with the enemy, etc.
Identify and understand the features and the marginal information on the map sheet.

Identify the major terrain features (hill, valley, ridge, saddle and depression) and the minor terrain features (draw, spur and cliff).
Determine eight-digit grid coordinates and plot locations using various techniques.
Measure and determine distance on a map.
Determine and convert azimuths in MILS and degrees. Determine the location of unknown points.
Properly utilize a lensatic compass.
Identify contour lines and intervals on a map.
Determine the slope of a hill utilizing a map.
Convert distance in miles and kilometers.
Evaluate the casualty following the sequence of steps in the performance measures. Check for: Responsiveness, Breathing, Bleeding, Shock, Fractures, Burns, Head Injury, Seek Medical Aid, and Identify all injuries and conditions. Attempt to clear the object from the casualty's throat following the sequence of steps in the performance measures: Determine if casualty needs help, Perform abdominal or chest thrusts, and Continue giving abdominal or chest thrusts as required. Continue giving abdominal or chest compressions until the casualty can talk and breathe normally, you are relieved by a qualified person, or the casualty- becomes unconscious requiring mouth-to-mouth resuscitation.
Perform mouth-to-mouth resuscitation following the sequence of steps in the performance measures: Position casualty on back if necessary, Open airway using head-tilt/chin-lift method, Check for breathing, give breaths to ensure airway is open, Reposition head slightly farther backward and repeat breaths, Perform abdominal .or chest thrusts, Perform a finger sweep and repeat breaths,

Check for pulse, and Continue mouth-to-mouth.
Put a field dressing and, if necessary, a pressure dressing on a wound.
Apply a tourniquet to stop bright red bleeding. Ensure that the tourniquet stick does not unwind.
Attempt to prevent shock without causing further injury to the casualty.
Describe and understand prevention of cold weather injuries.
Identify and treat cold weather injuries.
Describe and understand the
key fundamentals of basic rifle marksmanship.
Operate and maintain an M16A1/M16A2.
Place a tactical radio into operation.
Conduct proper tactical radio procedures.
MSL 201. Individual Leadership Studies (2). Students identify successful leadership characteristics through personal experience and observation of others during hands-on team building exercises. Explores persuasion techniques and the continuum of guidance to determine leadership styles. Open to all students.
Upon successful completion of this course, the student will be able to:
Camouflage all exposed skin areas and individual equipment to avoid detection.
Camouflage defensive position so that it cannot be detected from a distance of 35 meters or from the air.
Analyze the route or location in terms of the five military aspects of terrain and determine how each affects the mission.
Identify cold weather injuries such as: Chilblain/frostnip, Frostbite, Trench foot, Snow blindness, Hypothermia, Dehydration.
Give first aid for cold weather without causing further injury to the casualty.

Develop and implement a personal physical fitness program that is in agreement with FM 21-20 and meets the goals prescribed in the Army's fitness doctrine AR 350-15. Introduce, explain, and lead a PT session IAW FM 21-20.
Explain the concepts, techniques, and procedures involved in implementing a PT
program IAW FM 21-20.
Assemble and disassemble an
M16A2 rifle and perform a
functions check within 5 minutes.
Clean, inspect, and lubricate the rifle so that it functions correctly.
Thoroughly understand the mechanical operations, functions, maintenance, and safety of the M16 rifle, magazines and ammunition. Operate an M16A2 rifle, safely.
Properly load chamber and fire the rifle, and unload the rifle so that no ammunition remains in the rifle and the rifle is in a safe condition.
Perform marksmanship fundamentals of steady position, aim, breathing, trigger squeeze.
Explain or assume basic firing positions: supported, prone, kneeling supported, kneeling unsupported, standing. Coach other firers on correct procedures for zeroing the M16A2.
Place weapon on mechanical zero.
Correct individual weapon zero using shot group analysis. Install the Claymore.
Perform circuit test and installation of firing wire and blasting cap.
Disarm and recover the Claymore using the correct procedures.
Properly inspect and correctly identify hand grenades ensuring the hand grenade is safe to use.
Select the correct hand grenade to do each of the following: disable or neutralize personnel, signal personnel, screen (provide concealment), destroy
equipment and start fires, control riots or disable Individuals without causing serious injury.
Properly throw the selected hand grenade to achieve the intended outcome.
Correctly mount the M60
machine gun on the M122 tripod.
Load the machine gun such that when the safety is put on $F$ (FIRE) and the trigger pulled, the machine gun will fire.
Apply immediate action that results in correction of a stoppage and resumption of firing.
Unload the machine gun such that it is cleared and rendered safe.
Operate the following: M60
Machine Gun Platform and
Pintle Group, M60 Machine
Gun Pintle Assembly, M60
Machine Gun Mounting Plate,
The Safety in the Fire Position,
The Cocking in the Forward
Position, The Feed Tray,
Receiver Group, And Chamber, and Ammunition Correctly Loaded in the Feed Tray.
Engage targets with an m60 machine gun.
Fire the M60 machine gun, using direct lay, in such a manner that the targets will be hit.
Understand Sight Alignment,
Sight Picture, Adjusted Aiming
Point, Center of Mass, Point
Target Engagement, Moving
Target Engagement, Trajectory
and Maximum Ordinate, Cone
of Fire, Relative Size and
Shape of Beaten Zone, Danger
Space, Classes of Fire with
Respect to the Ground, Classes
of Fire with Respect to the
Target, and Traversing and
Searching.
Enter the net, transmit and receive a message, and leave the net, without error, using correct phonetic alphabet and Numerals, prowords, and radio procedures.
Following established safety procedures inspect the antenna and radio IAW TM 11-5820-
667-12 to ensure that it is
operational, noting all deficiencies.
Using the proper frequency establish contact with another radio.

## MSL 202. Leadership and

Teamwork (2). Examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Open to all students.
Upon successful completion of this course, the student will be able to:
Conduct all commands, individual movements, formations, marching and conducting of drill, and ceremonies will be in accordance with FM 22-5. Transmit information to the receiving authority in size, activity, location, unit, time, and equipment (S-A-L-U-T-E) format via radio, wire, cable, or written message with a messenger within 5 minutes after observation with six out of six S-A-L-U-T-E items correctly identified. Maintain security during halts and movement.
Keep at least one element prepared to maneuver or to provide suppressive fire. Continuously control movement.
Select the movement technique based on the likelihood of contact.
Move to within 100 meters of the enemy position without being exposed for over 5 seconds.
Understand individual movement routes including high crawl, low crawl, and rush.
React to a ground flare so that you do not draw accurate fire onto your position. React to overhead flare with warning, without warning, when not under direct enemy fire, and when under direct
enemy fire so that you do not draw accurate fire onto your position.
React to each situation by following leader's action or perform appropriate actions. Have a plan that must be developed using the key word SURVIVAL to avoid capture, maintain health, and return to friendly lines.
Know and understand the
Army supply system as it relates to accomplishing your duties as a commissioned officer.
Specify the classes of supply within the Army.
Contrast wholesale with retail supply within the Army.
Specify the main actions
involved in Army supply.
Specify documents which the loss, damage or destruction of government property must generate.
Specify the purpose of the Unit Supply Update. Specify the two supply documents with which the cadet/candidate works and the purpose of each.
Specify the names of automated supply systems and a purpose of each. Identify factors which influence accidents in both training and garrison environments. Establish prevention plan. Prepare risk assessment matrix. Comply and enforce compliance with Army's EO and sexual harassment policies, and take appropriate and expedient action to correct the problem or situation.
Define racism, sexism, and prejudice.
Define leader roles and
responsibilities in the
prevention of sexual harassment.

## MSL 211. Land Navigation

(2). Principles of land navigation and orienteering with practical field applications. Upon successful completion of this course, the student will be able to:

Use the modern GPS system and discuss its use in the world today.
Know and demonstrate an understanding of land navigation using a map and compass.
Identify terrain features on a map.
Plot locations using a
coordinate scale and protractor. Convert azimuths using magnetic declination diagrams. Locate unknown points using intersection, resection, and modified resection techniques. Understand and demonstrate use of the Lensatic compass. Orient a map using a compass and terrain association.
Determine direction without a compass.
Demonstrate a fundamental understanding of warfare scenarios using a map overlay. List all the parts on a map. Determine direction with or without a compass.
MSL 212. Leadership
Laboratory (1). Practical experience in leadership and basic military skills. May be repeated for credit.
Upon successful completion of this course, the student will be able to:
Apply leadership principles and basic military skills learned in both the basic and advanced course.
Demonstrate the ability to treat for shock, cold/hot weather injuries, fractures and burns, perform mouth-to-mouth resuscitation, transport and evaluate a casualty.
Use a compass, and utilize a grid reference map and protractor to locate points in the wilderness.
Compose and issue an oral operations order, develop subteams to perform tasks, conduct an after action review/evaluation. Conduct and apply movement techniques for a squad. They will apply the principles of war, terrain analysis; mission planning, battle drills and reporting.

Respond to situational exercises using the proper leadership techniques and principles.
Identify battle drill application; integrate leadership, land navigation, first aid, and communication skills.
MSL 292. Leader's Training
Course, Internship (8). Basic military skills and leadership techniques taught at Ft. Knox, Kentucky, during the summer. Qualifies the student for enrollment in the ROTC advanced course. Training emphasizes leadership development and can be taken in place of the basic course. Students receive pay, food, lodging, and travel expenses to and from Ft. Knox. By permission.
Upon successful completion of this course, the student will be able to:
Evaluate a Casualty
Perform 1st Aid to
Prevent/control Shock
Perform 1st Aid for Bleeding
of an Extremity
Perform 1st Aid for suspected
Fracture
Perform 1st Aid for Burns
Perform Mouth-to-Mouth
Resuscitation
Perform 1st Aid for an Open
Head Wound
Perform 1st Aid for an Open
Chest Wound
Perform 1st Aid for an Open
Abdominal Wound
Perform 1st Aid to Clear
Object from Throat
Perform 1st Aid for Cold
Injuries
Perform 1st Aid for Heat
Injuries
Transport a Casualty
Request Medical Evacuation
Perform 1st Aid for Nerve Agent Injury
Decontaminate yourself and individual Equipment Using
Chemical Decontamination Kits
Protect Yourself from NBC Injury/Contamination with the Appropriate MOPP Gear React to a Nuclear Hazard or Attack

Protect yourself using
Protective Mask
Detect Chemical Agents Using
MB or M9 Detector Paper
Identify Chemical Agents
using M256 Chemical Agent
Detector Kits
Conduct Unmasking
Procedures
Recommend Admin and
Personnel Actions
Supervise Financial Readiness
Actions
Employ Military Justice
Supervise Supply Activities
Conduct Preventive
Maintenance Checks and
Services
Write in the Army Style
Conduct a Military Briefing
Communicate Effectively in a
Given Situation
Conduct Drill and Ceremonies
Apply Characteristics of
Profession to Officer Service
Identify Ways Values Affect
Leader Obligations
Comply w/Joint Ethics
Regulation Requirements
Create a Climate that Fosters
Ethical Behavior
Apply the Just War Tradition
Resolve an Ethical Problem
Implement a Total Fitness
Program
Conduct Risk Assessment
Implement Preventive
Medicine Measures
Enforce Detection Prevention
Measures
Defend Yourself and Unit
Against Terrorism
Operate an M60 Machine Gun
Report Intelligence
Information
Process Captured Materiel
Identify Future Threats
Employ IEW Assets
Navigate While Dismounted
Apply Leadership Doctrine to
Given Situation
Identify Duties/Authority of
Officer/WO/NCO/Civ
Conduct Pr-Combat Checks
Coordinate Activities with
Staffs
Apply Team Development
Techniques
Motivate Subordinates to
Improve Performance
Counsel Subordinates

Enforce EO/Sexual
Harassment Program
Act IAW the Provisions of the
Code of Conduct
Comply w/Environmental
Laws/Regulations
Apply Branch Information to
Career Decisions
Apply Customs and Traditions
of the Service
Integrate Mil History into
Education of Officers
Maintain Assigned Protective
Mask
React to Chemical/Bio Hazard
or Attack
Issue an Oral Operations Order
Conduct Movement
Techniques by Squad
React to Direct/Indirect fire
Conduct a Defense by Squad
Sized Unit
Control Entry into a Restricted
Area
Adjust Indirect Fire
Analyze Terrain
Apply Principles of War in
Mission Planning
Conduct Small Unit Operations
IAW Law of War
Report Casualties
Process Captives
Communicate by Tactical
Radio
Communicate by Tactical
Telephone
Implement Operational
Security Measures
Protect Classified
Information/Material
Employ Physical Security
Measures
Identify Roles/Organization of US Army
Train Subordinates to Perform
Individual Task
Train a Team (or Squad)
Train a Squad
Operate a M 16A 1 /M 16A2
Rifle
Maintain a M16A1/M16A2
Rifle
Maintain a M60 Machine Gun
Prepare a Range Card for M60
Machine Gun
Employ a M1 BA 1 Claymore
Mine
Employ Hand Grenades
MSL 293. Ranger Challenge
Training (2). Prepares students
to compete as a team member
on the CWU Ranger Challenge team. Corequisite: PEF 118. Upon successful completion of this course, the student will be able to:
Construct a one-rope bridge over a river crossing using wireman's knot, half hitches, swiss seat, and teamwork. Conduct orienteering and land navigation in small teams using all techniques, compass, protractor, grid reference system, and maps. Conduct a 10 K team endurance march using military load equipment, packing list, and teamwork.
Conduct a hand grenade toss using proper throwing techniques and safety measures. Learn the maintenance of military weaponry, assembly, disassembly, safety checks, and demonstrate operation (function checks).
Conduct a physical fitness tests using correct push up, sit up, and running 2 miles.
MSL 296. Individual Studies in Military Science (1-15). MSL 298. Special Topics (16).

MSL 299. Seminar (1-5). May be repeated if subject is different.

## MSL 301. Leadership and

 Problem Solving (3). Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem solving techniques. Students receive direct feedback on leadership abilities. Required for commissioning. PrerequisiteMSL 102
Upon successful completion of this course, the student will be able to:
Demonstrate how to give a briefing.
Demonstrate how to navigate using a map and compass.
Develop the use of troop
leading procedures.
Conduct pre-combat
inspections.

Write an operations order. Conduct an after action review. Apply movement formations, operations order, drill and ceremony, offensive operations, land navigation, and defensive operations to situational exercises.
MSL 302. Leadership and
Ethics (3). Students learn small-group leadership methods with emphasis on problem solving and dealing with situational change required for commissioning. Prerequisite: MSL 301. Upon successful completion of this course, the student will be able to:
Practice battle drills $1,2,3,4, \&$ 5.

Describe the principles of land navigation.
Demonstrate how to conduct an ambush.
Identify the principles of patrolling.
Demonstrate how to receive and issue an operation order. Demonstrate ability to plan and conduct military operations. Apply battle drills, patrolling, land navigation, and mission planning to numerous situational exercises.
MSL 303. Leadership and Small Group Tactics (3). Students learn and demonstrate small-unit tactics and land navigation methods while using advanced problemsolving techniques. Emphasis on decision making and communication skills. Required for commissioning. Prerequisite: MSL 302.
Upon successful completion of this course, the student will be able to:
Demonstrate ability to lead
Raid, Ambush, and
Reconnaissance patrols.
Demonstrate navigation
proficiency using a map and a compass.
Explain how to cross danger areas.
Demonstrate the ability to be a Squad Leader, Platoon Leader, and Platoon Sergeant. Demonstrate proficiency with M16A2.

Demonstrate proficiency at MEDEVAC procedures using the 9 line format.
Demonstrate ability to write military operation orders and conduct troop leading procedures.
MSL 314. Military History of the United States (5). A comprehensive and systematic survey and analysis of the American military experience from colonial times through the Vietnam War. MSL 314 and HIST 314 are cross-listed courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Survey America's military history from the colonial era through the Vietnam War. See military history, broadly defined, encompasses more than battlefield tactics and strategy, war heroes, technology, or professionalism. Study how America's military experience was at the nexus of foreign policy, political and social change, and economic development.

## MSL 392. Leader Development and Assessment Course Preparation (2).

Practical exercise in small-unit leadership and tactics. Prepares the student for leader development and assessment course. Prerequisite: MSL 302. Upon successful completion of this course, the student will be able to:
Prepare for NALC conducted at Fort Lewis, Washington Challenge, develop and evaluate leadership abilities Test intelligence, common sense, ingenuity and stamina Meet established standards in physical fitness, weapons training, communication, combat patrols and demonstrate their proficiency in other military skills Demonstrate a proficiency in the following areas:

Field Leader's Reaction Course Confidence Training
Basic Rifle Marksmanship

Automatic Weapons Training
Land Navigation
Individual Tactical Training
Fire Support
Hand Grenade
Nuclear, Biological Chemical
Squad Situational Training
Exercises
Patrolling Situational Training
Exercises
Military History (Regimental)
Rappelling \& Rope Bridge
Operations
Establish Bivouac
Branch Orientation
MSL 396. Individual Study
(1-6). May be repeated if subject is different.
MSL 397. Honors (1-12).
Prerequisite: admission to department honors program.
MSL 398. Special Topics (16).

MSL 398. Special Topics (1-
6). May be repeated if subject is different.
MSL 399. Seminar (1-5). May
be repeated if subject is
different.
MSL 401. Leadership and
Management (4). Develops student proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management, methods of effective staff collaboration, and developmental counseling techniques. Required for commissioning. Prerequisite: MSL 303.
Upon successful completion of this course, the student will be able to:
Begin the final preparation of training before assuming the obligation of a commissioned officer in our Army.
Demonstrate proficiency in the following areas :
Communicate effectively in writing.
Implement how to coordinate activities with staffs.
Conduct proper subordinate counseling.
Present briefings.
Implement a total fitness
program.

Apply characteristics of the profession to officer service.
Assist in the planning of the Winter FTX
Discuss staff coordination process, planning, preparing for and executing class presentation.
Describe the Army's Supply Activities.
Refine the After Action Review Process.
Prepare and conduct small unit training.
MSL 402. Officership (4).
Study includes case analysis of military culture and practical exercises on establishing a command climate. Students must complete a quarter-long Senior Leadership Project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. Required for commissioning. Prerequisite: MSL 401.
Upon successful completion of this course, the student will be able to:
Begin the final preparation of training before assuming the obligation of a commissioned officer in our Army.
Demonstrate proficiency in the following areas:
Explain Military Customs and Courtesies.
Discuss the Army's Preventive Maintenance.
Communicate effectively in the Army Writing style.
Practice training on BOS,
METT-T and OCOKA. Use Leadership Counseling.
Use stress reduction
techniques.
Demonstrate time
management.
Develop assertive skills.
Define organizational systems, cultures, and theories.
MSL 403. Officership II (2).
Emphasis on analyzing case
and situational studies which
cover contemporary leadership
problems. Required for
commissioning. Prerequisite:
MSL 402.
Upon successful completion of this course, the student will be able to:

Complete the final preparation of training before assuming the obligation of a commissioned officer in our Army. Demonstrate proficiency in the following areas:
Plan, organize and execute
Spring FTX to Army
standards.
Communicate effectively in writing.
Demonstrate a full understand of the Military Code of Conduct.
Use personnel administration.
Define values and ethics.
Discuss Military Law.
Discuss Law of War.
Describe the Joint ethics regulations.
Demonstrate task organization.

## MSL 492. Leader

Development and Assessment
Course Internship (8-15).
Practical exercise in small-unit
leadership and tactics. Five-
week camp at Ft. Lewis, Washington. Required for commissioning. May be repeated for credit.
Prerequisites: MSL 301, MSL 302, and MSL 303.
Upon successful completion of this course, the student will be able to:
Attend NALC to incorporate a wide range of training designed to challenge, develop and evaluate leadership abilities. Test intelligence, common sense, ingenuity and stamina. Placed in a variety of leadership positions, many of which simulate stressful situations.
Meet established standards in physical fitness, weapons training, communication, combat patrols and demonstrate their proficiency in other military skills.
Demonstrate proficiency in the following areas:
Field Leader's Reaction Course Confidence Training
Basic Rifle Marksmanship
Automatic Weapons Training
Land Navigation
Individual Tactical Training
Fire Support
Hand Grenade
Nuclear, Biological Chemical

Squad Situational Training
Exercises
Patrolling Situational Training
Exercises
Military History (Regimental)
Rappelling \& Rope Bridge
Operations
Establish Bivouac
Branch Orientation
MSL 496. Individual Study
(1-6). May be repeated if subject is different.
MSL 497. Honors (1-12).
Prerequisite: admission to department honors program.
MSL 498. Special Topics (1-
6). May be repeated if subject is different.
MSL 499. Seminar (1-5). May
be repeated if subject is
different.
MSL 301LAB. Military
Science and Tactics III
Laboratory (1). Requires concurrent enrollment in MSL 301. Practical experience and application in first aid, weapons, communications, and advanced land navigation. Corequisite: MSL 301. Upon successful completion of this course, the student will be able to perform:
First Aid
Communications
Advanced land navigation

## MSL 302LAB. Military

Science and Tactics III
Laboratory (1). Practical experience and application in small-unit leadership techniques, and small-unit tactics. Corequisite: MSL 302.
Upon successful completion of this course, the student will be
able to understand:
Small Unit Leadership
Small Unit Tactics
MSL 303LAB. Military
Science and Tactics III
Laboratory (1). Practical experience integration of small-unit tactics, land navigation, techniques of fire support, and military skills. Corequisite: MSL 303.
Upon successful completion of this course, the student will be able to understand:
Fire Support
Small Unit Tactics

MUS 101. History of Jazz (5).
History of artistic, cultural, and technological developments in jazz, focusing on important players and performances. Introduction to fundamental musical concepts and methods; emphasis on active listening, social justice, current issues. Course will be offered every year (Fall, Winter, Spring). AH-Aesthetic Experience. Upon successful completion of this course, the student will be able to:
Identify and describe selected important historical developments, styles, and performers in jazz history. Evaluate jazz performances in their historical, aesthetic, and cultural contexts. Demonstrate knowledge of jazz from the perspectives of aesthetic development, nationalism, race, and gender. Analyze jazz and related music examples using appropriate terminology, and communicate clearly and thoroughly the student's descriptions of and reflections on jazz music. Analyze the ways that technology and industry have influenced the social, cultural, and artistic development of jazz in the past and in contemporary society.
MUS 102. Introduction to Music (5). Landmark composers, styles, and works of Western music history from the Middle Ages to the present. Fundamental musical concepts (melody, harmony, rhythm, form, etc.) are emphasized to develop student understanding and listening skills. Course will be offered every year (Fall, Winter, Spring). AH-Aesthetic Experience.
Upon successful completion of this course, the student will be able to:
Identify and describe the fundamental elements, such as melody, harmony, rhythm, sonority, and form.
Demonstrate an understanding of a basic narrative of Western music history, including details
about representative composers, pieces, and genres. Describe and differentiate musical style characteristics related to the different periods and genres of Western music. Demonstrate an understanding of traditions associated with concert attendance, including concert etiquette, in a variety of performance settings.
MUS 103. History of Rock and Roll (5). History of Rock and Roll, America's second indigenous musical art form, after jazz. Emphasis placed on artists, music genres, and cultural/societal forces shaping rock's evolution, 1950s to present. Extensive listening, reading; required online discussion. Course will be offered every year (Fall, Winter, Spring). AH-Aesthetic Experience.
Upon successful completion of this course, the student will be able to:
Employ precise musical and cultural terminology and concepts for the discussion and analysis of rock music and its history.
Describe the influence of American and British cultural and historical traditions upon rock music, including various manifestations of racial, sexual, and gender inequality. Compare and contrast different examples of rock music as well as other contemporaneous popular music, demonstrating an understanding of the musical and cultural commonalities and distinctions between them.
Evaluate rock music using aesthetic criteria, musical analysis, and critical judgment. Describe the geographical aspects of various rock genres' history and popularity arcs.

## MUS 104. Introduction to

 Musical Studies (Put on reserve as of $9 / 16 / 15$.) (3).Attitudes and concepts relevant to the music profession. Listening repertoire and reference materials. Designed for entering music majors. Put
on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
MUS 105. Introduction to World Music (4). An interdisciplinary exploration of the many roles played by music in traditional societies, with emphasis on music's social functions, life contexts, and influence on self-identity. Course will be offered every year (Fall, Winter, Spring). Prerequisite: ENG 101. Upon successful completion of this course, the student will be able to:
Analyze the impact of global and local issues on the development of traditional music, especially those that affect its viability and preservation. Evaluate the roles that music plays in traditional cultures that reinforce or break down patterns of socioeconomic and political inequalities in those societies and in the global village.
Identify key concepts and strategies that foster stewardship activities to promote, advocate, and celebrate traditional music and cultures associated with them. Evaluate the influence of traditional music on global culture, including the phenomena of music fusion, ethnonationalism, and global music forms (e. g. jazz and world beat.)
Integrate ethnomusicological theories with field research and observations to generate coherent models that can be used to interpret and apply data in a real-world setting.
MUS 120. Composition 1 (3). Introduction to composition addressing such topics as phrase structure, melodic development, modulations, textures, and transitions. Small compositional projects emphasizing certain stylistic traits for piano and other genres. May be repeated up to 3 credits. Prerequisites: MUS 145 and MUS 145A with a C or higher.

Upon successful completion of this course, the student will be able to:
Identify forms and structural elements in compositions including: form, phrase structure, modulations, and transitions.
Aurally identify, discuss, and analyze formal structures of a composition including: form, key centers, modulation, secondary functions, tonicization, chromaticism, change of orchestration, transitions, types of modulation, and compositional techniques.
Be able to identify the performance practice of certain composers.
Recognize the "voice" certain composers exemplify in their music and understand what characterizes such a voice and find ways to begin to create their own "voice". Incorporate terminology/techniques pertaining to melodic development, form, structure, harmony, style, and compositional techniques. Compose original works incorporating theoretical knowledge while developing a creative and unique "voice".
MUS 143. Introduction to Music Theory (3).
Introduction of fundamental music theory: scales, keys, meter, and rhythm, triads, eartraining, and keyboard fundamentals. Course is designed for non-majors seeking basic musical skills, and for music majors with limited theoretical backgrounds. Does not count toward a music degree.
MUS 144. Theory 1 (3). Basic theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, and rhythm. This course is the first in the six-course harmony sequence. Courses must be taken in sequence. Prerequisite: online fundamental exam with $75 \%$ or higher, or successful completion of the online
fundamental course. Corequisite: MUS 152A.
Upon successful completion of this course, the student will be able to:
Apply fundamental concepts through written comprehension of clefs, scales, key signatures, intervals, triads, and seventh chords.
Demonstrate the fundamentals of harmonic function and progression.
Identify a variety of written rhythmic patterns. Write major and minor scales, intervals, triads, seventh chords, and apply written solfege to short tonal excerpts. MUS 145. Theory 2 (3). Basic theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, rhythm, and voice leading as demonstrated through analytical and compositional perspectives. This course is the second in the six-course harmony sequence. Courses must be taken in sequence. Prerequisites: MUS 144 and MUS 144A with grades of C or higher. Corequisite: MUS 145A and MUS 152A or MUS 153A. Upon successful completion of this course, the student will be able to:
Apply fundamental concepts through written comprehension of clefs, scales, key signatures, intervals, triads, seventh chords, figured bass, phrase structure, and cadence types. Demonstrate the fundamentals of harmonic function and progression.
Identify a variety of rhythmic patterns.
Write major and minor scales, intervals, triads, seventh chords, realize figured bass, diagram phrase structure, and cadence types.
MUS 146. Theory 3 (3). Basic theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, rhythm, and voice leading as demonstrated through analytical and compositional perspectives.

This course is the third in the six-course harmony sequence. Courses must be taken in sequence. Prerequisite: MUS 145 and MUS 145A with grades of C or higher. Corequisite: MUS 146A and MUS 154A or MUS 153A or MUS 154A.
Upon successful completion of this course, the student will be able to:
Apply fundamental concepts through written comprehension of clefs, scales, key signatures, intervals, triads, seventh chords, figured bass, and cadence types.
Demonstrate the fundamentals of harmonic function and progression.
Apply fundamental concepts through written comprehension of non-chord tones (embellishing tones), resolution of dominant seventh chords, diatonic seventh chords, phrase structure, and texture types.
MUS 154. Class Instruction
(1). May be repeated for credit. Each course prerequisite to the next numeral (A.) Piano I, II, III; (B.) Voice I, II; (H.) Guitar I, II. Course fees do apply.
MUS 164. Major Applied Area (Individual Instruction) (1-2). Instruction available in performance areas A-H and K. Department consent required. May be repeated for credit. Upon successful completion of this course, the student will be able to:
Demonstrate musicianship
through the artistic mastery of the instrument.
Acquire beginning pedagogical
knowledge of the instrument.
Demonstrate
beginning/intermediate proficiency in rhythm, sightreading, and style.
Acquire knowledge and develop
beginning/intermediate performance ability through the study of basic literature of the instrument appropriate to the level of study.
MUS 171. Secondary Applied Area (Individual Instruction)
(1). Private study on instruments secondary to a student's major performance area. Intended particularly for beginning students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available in performance areas A-I and K. May be repeated for credit. One credit any quarter, may be repeated.
MUS 198. Special Topics (16).

MUS 210. Vocal Jazz Choir
(1). Must attend all scheduled rehearsals and performances. An ensemble specializing in performance of repertoire from jazz choir tradition established in the Northwest and beyond. Limited to SATB singers and rhythm-section instruments. May be repeated for credit. Prerequisite: student must be freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Demonstrate characteristic jazz tone quality on their instruments and voices. Demonstrate characteristic jazz phrasing and style on their instruments and voices. Work together to create a cohesive group sound with an overall high quality artistic, emotional and technical impact.
Perform a wide variety of music composed and arranged for the vocal jazz ensemble. Improvise in a vocal jazz ensemble setting, including musical interaction within the ensemble.

## MUS 211. Women's Choir

(1). May be repeated for credit.

Two hours of rehearsal per week plus all scheduled rehearsals and performances. Prerequisite: student must be freshmen or sophomore standing.
MUS 213. Flute Choir (1). Previous experience in flute performance and permission of instructor. Two hours of rehearsal per week plus all
scheduled rehearsals and performances. May be repeated for credit. Prerequisite: students must be freshmen or sophomore standing.
MUS 214. Brass Choir (1). Two hours of rehearsal per week plus all scheduled rehearsals and performances. May be repeated for credit. Prerequisite: student must be freshmen or sophomore standing.
MUS 215. Chamber
Orchestra (1). Two hours rehearsal per week plus all scheduled rehearsals and performances. By audition. May be repeated for credit. Course will be offered every year (Winter and Spring). Prerequisites: student must be freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style Practice sight reading skills MUS 217. Chamber Music
Ensemble (1). One hour
coaching plus two hours rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas A-I, K, L. By audition. May be repeated for credit. Course will be offered every year (Fall and Winter).
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble

Perform quality music of varying time periods in the appropriate style
Practice sight reading skills
MUS 218. Jazz Combo (1).
Performance in jazz combos in various configurations. May be repeated for credit.
Prerequisite: student must be freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Direct jazz combo rehearsals, using efficient and productive rehearsal techniques and performance practices.
Rehearse and perform literature from the jazz combo genre in a variety of styles. Create high quality written and head arrangements of the music they are rehearsing for performance.
Produce a high quality performance of their combo repertoire.
Improvise in a jazz combo setting, including musical interaction within the ensemble.
MUS 220. Composition 2 (2). Intermediate study in composition. May be repeated up to 6 credits. Prerequisite: 3 credits of MUS 120 .
Upon successful completion of this course, the student will be able to:
Identify forms and structural elements in compositions including: form, phrase structure, modulations, and transitions.
Aurally identify, discuss, and analyze formal structures of a composition including: form, key centers, modulation, secondary functions, tonicization, chromaticism, change or orchestration, transitions, types of modulation, and compositional techniques.
Identify the performance practice of certain composers. Recognize the "voice" certain composers exemplify in their music and understand what characterizes such a voice and
find ways to begin to create their own "voice."
Incorporate
terminology/techniques
pertaining to melodic
development, form, structure, harmony, style, and compositional techniques.
Compose original works
incorporating theoretical knowledge while developing a
creative and unique "voice."
Demonstrate proficiency of notation software such as Finale or Sibelius.
MUS 228. Men's Choir (1).
Two hours of rehearsal per week plus all scheduled rehearsals and performances. May be repeated for credit. Prerequisites: student must be
freshmen or sophomore standing.

## MUS 229. Percussion

Ensemble (1). Two hours rehearsal per week plus all scheduled rehearsals and performances. By audition. May be repeated for credit. Course will be offered every year (Fall, Winter, and Spring).
Prerequisite: student must be freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style
Practice sight reading skills
MUS 232. Big Band (1). Must
attend all scheduled rehearsals
and performances. MUS 432
for juniors and seniors. By permission. May be repeated for credit. Prerequisites: student must be freshmen or sophomore standing. Upon successful completion of this course, the student will be able to:

Demonstrate characteristic jazz tone quality on their instruments.
Demonstrate characteristic jazz phrasing and style on their instruments.
Work together to create a cohesive group sound with an overall high quality artistic, emotional and technical impact.
Perform a wide variety of music composed and arranged for the jazz big band.
Improvise in a jazz big band setting, including musical interaction within the ensemble.
MUS 235. Laboratory Choir
(1). Two hours of rehearsal per week plus all scheduled rehearsals and performances. Open to all students to participate as singers. By permission. May be repeated for credit.

## MUS 240. Diction in Singers <br> I (Intro to IPA, Italian,

 Latin, English) (2). Afundamental course to teach
the singer and choral director the International Phonetic Alphabet symbols, the correct execution of Italian, Latin, and English sounds, and the basic pronunciation rules of the three languages.
Upon successful completion of this course, the student will be able to:
Identify the symbols of the International Phonetic Alphabet.
Execute the physical movements necessary to produce the sounds symbolized by the IPA symbols used in Italian, Latin and English.
Transcribe Italian, Latin and English texts in correct IPA symbols using standard rules of pronunciation.
Read aloud and sing the sounds of the standard musical forms of those languages (Italian, English, and Latin) from IPA transcriptions and from the original text.
Translate Italian and Latin texts word for word using a combination of rudimentary grammar rules, a dictionary,
and a poetic translation when available.
Identify mispronunciations and poorly produced phonetic sounds in Italian, Latin and English song literature.
MUS 241. Diction for Singers
2 (Advanced IPA and
German) (2). A course
designed to teach the singer and choral director the International Phonetic Alphabet symbols as specifically applied to the German languages, the correct execution of German sounds, and the basic pronunciation rules of German. Prerequisite: MUS 240.
Upon successful completion of this course, the student will be able to:
Identify the symbols of the International Phonetic Alphabet with the addition of sounds particular to German pronunciation.
Execute the physical movements necessary to produce the sounds symbolized by the IPA symbols used in German.
Transcribe German texts in correct IPA symbols using standard rules of pronunciation. Read aloud and sing the sounds of the standard musical forms of German from IPA transcriptions and from the original text.
Translate German texts word for word using a combination of rudimentary grammar rules, a dictionary, and a poetic translation when available. Identify mispronunciations and poorly produced phonetic sounds in German song literature.
MUS 242. Diction for Singers 3 (Advanced IPA and
French) (2). A course
designed to teach the singer and choral director the International Phonetic Alphabet symbols as specifically applied to the French language, the correct execution of French sounds and the basic pronunciation
rules of French. Prerequisite:
MUS 240.
Upon successful completion of this course, the student will be able to:
Identify the symbols of the International Phonetic
Alphabet with the addition of sounds particular to French pronunciation.
Execute the physical
movements necessary to
produce the sounds symbolized
by the IPA symbols used in French.
Transcribe French texts in correct IPA symbols using standard rules of pronunciation.
Read aloud and sing the sounds of the standard musical forms of French from IPA transcriptions and from the original text.
Translate French texts word for word using a combination of rudimentary grammar rules, a dictionary, and a poetic translation when available. Identify mispronunciations and poorly produced phonetic sounds in French song literature.
MUS 244. Theory 4 (3). Intermediate theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, rhythm, and voice leading as demonstrated through analytical and compositional perspectives. This course integrates written topics and ear training, singing, dictation, rhythm, and practical keyboard applications. This is the fourth in the six-course harmony sequence. Courses must be taken in sequence. Prerequisites: MUS 146 and MUS 146A with grades of C or higher.
Upon successful completion of this course, the student will be able to:
Identify secondary function
chords, diatonic modulatory
techniques, and tradition
forms.
Demonstrate the fundamentals of part-writing harmonic function and progression.

Perform a variety of rhythmic patterns at sight.
Sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short chromatic tonal melodies. Notate short melodic and harmonic dictation exercises (chromatic).
Apply concepts through both written and aural
comprehension of non-chord tones (embellishing tones), resolution of dominant seventh chords, diatonic seventh chords, and texture types.
MUS 245. Theory 5 (3).
Advanced theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, rhythm, and voice leading as demonstrated through analytical and compositional perspectives. This course integrates written topics and ear training, singing, dictation, rhythm, and practical keyboard applications. This is the fifth in the six-course harmony sequence. Courses must be taken in sequence. Prerequisite: MUS 244 with a C or higher. Upon successful completion of this course, the student will be able to:
Identify (both written and aural) and analyze elements of chromatic harmony including secondary function chords, diatonic modulatory techniques, and enharmonic modulations.
Demonstrate the fundamentals of part-writing, harmonic function and progression. Perform a variety of rhythmic patterns at sight.
Sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short chromatic tonal melodies that include modulation.
Notate short melodic and harmonic dictation exercises (chromatic).
Identify (both written and aural) and analyze elements of chromatic harmony including borrowed chords, Neapolitan and augmented sixth chords, extended chords, altered
chords, and chromatic mendicants.
MUS 246. Theory 6 (3).
Advanced theoretical concepts dealing with fundamental elements of common-practice period melody, harmony, rhythm, and voice leading as demonstrated through analytical and compositional perspectives. This course integrates written topics and ear training, singing, dictation, rhythm, and practical keyboard applications. This is the sixth in the six-course harmony sequence. Courses must be taken in sequence. Prerequisite: MUS 245 with a C or higher. Upon successful completion of this course, the student will be able to:
Identify (both written and aural) and analyze elements of chromatic harmony and nontraditional harmony including extended chords, altered chords, enharmonic techniques, and chromatic mendicants. Identify complex rhythmic devices, modes, synthetic scales, vertical sonorities, compositional techniques. Perform a variety of rhythmic patterns at sight including simple, compound and asymmetrical meters. Be able to sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short chromatic tonal melodies that include modulation and atonal melodies.
Be able to notate short melodic and harmonic dictation exercises (chromatic) Identify (both written and aural) impressionistic, neoclassical, serial, and other significant (20th /21st c. composers, styles, and compositional techniques. Identify and analyze pitch class sets, interval vectors, and 12tone compositions.
MUS 255. Jazz Harmony and Keyboard (1). For
instrumental, choral, and studio teachers providing practical/working knowledge of keyboard harmony, chord
voicing, bass line construction, and improvisation in jazz and pop genres. Prerequisites: MUS 146 and MUS 154A. Upon successful completion of this course, the student will be able to:
Demonstrate jazz and popular chord voicings on the keyboard.
Demonstrate jazz and popular bass lines on the keyboard.
Demonstrate chord progressions and chord patterns on the keyboard
MUS 261. Opera Workshop (1-2). A class leading to the performance of scenes and single acts from opera. By audition. May be repeated for credit. Course will be offered on even numbered years (Winter and Spring). Prerequisite: student must be freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Prepare an operatic role musically, including professional preparation expectations and the proper musical style for the period and genre.
Prepare a role dramatically, including character study and preparation as well as stage protocol and execution. Integrate their musical and dramatic preparation into practical performance experience in the final culminating performances. Participate in all aspects of opera production, including building sets and costumes, running stage equipment and using proper stage procedure.

## MUS 262. Opera Production

(1-3). A class leading to performance of a complete opera. May be repeated up to 9 credits. Prerequisite: student must be freshman or sophomore standing. Upon successful completion of this course, the student will be able to:
Prepare a choral or small operatic role musically, including professional
preparation expectations and the proper musical style for the period and genre.
Prepare a role dramatically, including character study and preparation as well as stage protocol and execution. Integrate their musical and dramatic preparation into practical performance experience in the final culminating performances. Participate in all aspects of opera production, including building sets and costumes, running stage equipment and using proper stage procedure.

## MUS 264. Major Applied

 Area (Individual Instruction)(1-2). Instruction available in performance areas A-H and K. Department consent required. May be repeated for credit. Prerequisite: MUS 164 (A-H, and K ) in appropriated applied area.
Upon successful completion of this course, the student will be able to:
Demonstrate musicianship through the artistic mastery of the instrument
Acquire
beginning/intermediate
pedagogical knowledge of the instrument Demonstrate intermediate proficiency in rhythm, sightreading, and style Acquire knowledge and develop intermediate performance ability through the study of basic literature of the instrument appropriate to the level of study
MUS 266. Wind Ensemble
(1-2). Open to students with demonstrated proficiency on band instruments by audition or permission of the instructor. Five hours of rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session. May be repeated for credit. Prerequisite: students must be freshmen or sophomore standing.
MUS 267. Choir (1-2). Open to all students by audition. Five hours rehearsal per week plus
all scheduled rehearsals and performances. One credit if offered one term only during summer session. May be repeated for credit. Prerequisite: student must be freshmen or sophomore standing.

## MUS 268. Chamber Choir

(2). Open to all students by audition. Three hours rehearsal per week plus all scheduled rehearsals and performances. May be repeated for credit. Prerequisite: student must be freshmen or sophomore standing.

## MUS 269. Symphonic Winds

(2). Symphonic Winds studies and performs a musically diverse repertoire, ranging from traditional band literature to contemporary music for wind band. Open to all students by audition. May be repeated for credit. Course will be offered every year (Winter and Spring). Prerequisite: students must be freshmen or sophomore standing. Upon successful completion of this course, the student will be able to:
Develop individual creative and interpretive skills in a group environment. Interpret music in the collaborative atmosphere of ensemble and section settings. Demonstrate leadership and team working skills required when performing in a music ensemble with others. Employ and improve musical and technical skills through ensemble and sectional rehearsal and the individual practice of parts.
MUS 271. Secondary Applied Area (Individual Instruction)
(1). Private study on instruments secondary to a student's major performance area. Intended particularly for intermediate students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available. One credit any quarter, may be repeated.

MUS 277. Orchestra (1-2). Open to all students proficient on orchestral instruments by audition. Five hours rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session. May be repeated for credit. Course will be offered every year (Fall, Winter, and Spring).
Prerequisite: students must be
freshmen or sophomore standing.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style Practice sight reading skills
MUS 287. Marching and Concert Band (2). Fall quarter only. Five hours of rehearsal per week plus all scheduled rehearsals and performances. This band functions as a marching band and is organized into a concert band at completion of the football season. May be repeated for credit. Prerequisite: students must be freshmen or sophomore standing.
MUS 288. Symphonic Band
(2). Winter and spring quarters only. Five hours of rehearsal per week plus scheduled rehearsals and performances. During winter and spring quarters the symphonic band will present several formal concert programs. May be repeated for credit. Prerequisite: students must be freshmen or sophomore standing.
MUS 292. Accompanying Practicum (1-3). By assignment of instructor. Minimum three hours of rehearsal weekly per credit plus performances. May be repeated for credit.

Prerequisite: students must be freshmen or sophomore standing.
MUS 296. Individual Study (1-6).
MUS 298. Special Topics (16).

MUS 299. Seminar (1-5).
MUS 300. Recital
Performance (1). Recital performance required for completion of degrees requiring 364-level applied study. Grade will either be S or U. Prerequisite: at least 1 credit of MUS 364 (any letter). Corequisite: MUS 364. Upon successful completion of this course, the student will be able to:
Demonstrate performance mastery of appropriate repertoire for MUS 364 applied studies.
Demonstrate technical proficiency and artistry appropriate to MUS 364 level repertoire.
Demonstrate skills necessary for adequate preparation of recital.
MUS 320. Composition 3 (2). Advanced study in composition. May be repeated up to 6 credits. Prerequisite: six units of MUS 220.
Upon successful completion of this course, the student will be able to:
Identify forms and structural elements in compositions including: form, phrase structure, modulations, and transitions.
Aurally identify, discuss, and analyze formal structures of a composition including: form, key centers, modulation, secondary functions, tonicization, chromaticism, change of orchestration, transitions, types of modulation, and compositional techniques.
Identify the performance practice of certain composers. Recognize the "voice" certain composers exemplify in their music and understand what characterizes such a voice and find ways to begin to create their own "voice".

Incorporate
terminology/techniques
pertaining to melodic
development, form, structure, harmony, style, and compositional techniques. Compose original works incorporating theoretical knowledge while developing a creative and unique "voice". Demonstrate proficiency of notation software such as Finale or Sibelius.
MUS 323. Choral Music Education (3). Philosophy, methods, and materials. Individual research and presentation of teaching unit in class. Prerequisite: MUS 341.

## MUS 325. Instrumental

 Music Education (3).Philosophy and psychology of music education through methods and materials; observation of teachers in the rehearsal, individual research. Prerequisite: admission to the Teacher Certification Program. MUS 326. Music in the Classroom (Put on reserve 9/16/17) (3). For the general classroom teacher. (Not for music majors or minors.). Techniques used in helping children to develop musically through singing, rhythmic activities, creative activities, listening, and playing instruments. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.) Prerequisite: admission to the Teacher Certification Program.
MUS 329. General Music Methods (3). Materials, methods, and instructional techniques for general music, grades K-12. Prerequisites: MUS 146 and MUS 146A with grades of C or higher, and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Research issues regarding the general music classroom through professional journals and texts.
Apply current music education trends regarding content and
construction to practical classroom application. Recognize the musical behavior associated with the development and ability of children.
Recognize and utilize classroom management techniques.
Formulate and articulate a rationale for music education in the K-12 environment. Incorporate major topics and current issues in music education.
MUS 340. Form and Analysis
(3). Analysis of the structure of tonal music from both a historical and theoretical perspective. Prerequisite: MUS
246 with a grade of C or higher.
Upon successful completion of this course, the student will be able to:
Recognize, define, and apply standard music vocabulary related to form and style analysis.
Listen actively to music, especially as related to their field of study.
Demonstrate a mastery of score reading through the recognition of musical syntax, structural elements, and notation details. Identify the chronology and development of musical styles.
MUS 341. Conducting I (3).
Fundamental principles of baton techniques, practical experience in conducting. Prerequisite: MUS 146.
MUS 342. Conducting II (3).
A continuation of MUS 341 and conducting literature of
junior-senior high school performing groups.
Prerequisite: MUS 341.
MUS 343. Counterpoint I (3).
Independent melodic line, harmonic background, motive structure, and two-point counterpoint as practiced by the composers of the 18th and 19th centuries. Written exercises and analysis. Prerequisite: MUS 244.
MUS 344. Theory Review (3).
A complete review of traditional harmony from rudiments of music through
chromatic harmony.
Prerequisite: MUS 246
Upon successful completion of this course, the student will be able to:
Identify aurally and visually intervals, scales, chords, cadences and basic melodies Write four part SATB passages from figured bass symbols, including advanced chromatic harmony and correct use of non-chord tones
Demonstrate knowledge of the basic musical forms and structures
Analyze a musical score for its attributes which may include harmonic scheme, form, embellishments, texture, cadences, instrumentation, and compositional techniques
MUS 347. Electronic Music Composition (3). Study of contemporary technologies and techniques as used to compose music. MUS 347 and MUS 547 are layered courses; students may not receive credit for both. Prerequisite: MUS 246.

Upon successful completion of this course, the student will be able to:
Demonstrate a thorough
historical understanding of the history of computer music from the Futurists to presentday electronics. Demonstrate a comprehensive knowledge of the early history of electronic music (music concrete, rca synthesizer, mook mk 3 c and tonus arp 2000 synthesizer e.g.) and use this knowledge in the creation of original compositions using modern-day computer music technology.
Demonstrate competency in software relevant to the study of composition. Publicly present original electronic compositions.
MUS 353. Jazz Improvisation
I (1). Beginning basic jazz improvisation techniques for upper-division wind, percussion, guitar, acoustic bass, and keyboard instruments. May be repeated
for credit. Prerequisites: MUS 246 and MUS 255.
Upon successful completion of this course, the student will be able to:
Demonstrate chord/scale relationships on their instrument at an advanced level.
Aurally recognize, read and write chord/scales at an advanced level.
Aurally recognize, read and write chord progressions at an advanced level.
Demonstrate guide tones in all 12 keys on their instrument at an advanced level.
Transcribe rhythm, melody and harmony at an advanced level. Demonstrate transposition of melodies and compressions on their instrument at an advanced level.
Demonstrate memorization of all assigned jazz standards at an advanced level.
Demonstrate competent improvisation concepts over chord changes at an advanced level.
MUS 354. Jazz Improvisation
II (1). Intermediate basic jazz improvisation techniques for upper-division wind, percussion, guitar, acoustic bass, and keyboard instruments. May be repeated for credit. Prerequisites: MUS 246, MUS 255, and MUS 353. Upon successful completion of this course, the student will be able to:
Demonstrate chord/scale relationships on their instrument at an intermediate level.
Aurally recognize, read and write chord/scales at an intermediate level. Aurally recognize, read and write chord progressions at an intermediate level.
Demonstrate guide tones in all 12 keys on their instrument at an intermediate level.
Transcribe rhythm, melody and harmony at an intermediate level.
Demonstrate transposition of melodies and compressions on
their instrument at an intermediate level.
Demonstrate memorization of all assigned jazz standards at an intermediate level.
Demonstrate competent improvisation concepts over chord changes at an
intermediate level.
MUS 355. Jazz Improvisation
III (1). Advanced basic jazz
improvisational techniques for
upper-division wind
instruments, percussion, guitar, acoustic bass, and keyboard instruments. May be repeated for up to 2 credits. Prerequisite: MUS 354.
Upon successful completion of this course, the student will be able to:
Demonstrate chord/scale relationships on their instrument at an advanced level.
Aurally recognize, read and write chord/scales at an advanced level.
Aurally recognize, read and write chord progressions at an advanced level.
Demonstrate guide tones in all 12 keys on their instrument at an advanced level.
Transcribe rhythm, melody and harmony at an advanced level. Demonstrate transposition of melodies and compressions on their instrument at an advanced level.
Demonstrate memorization of all assigned jazz standards at an advanced level.
Demonstrate competent improvisation concepts over chord changes at an advanced level.
MUS 356. Jazz Styles (3). A survey of jazz history with regard to evolution of jazz styles. Course activities include analysis, transcription, guided listening, imitative composition, research and essay writing. Prerequisite: MUS 246.
Upon successful completion of this course, the student will be able to:
Analyze jazz compositions and arrangements in terms of harmonic, rhythmic, and
structural elements, as well as historical and cultural context. Transcribe parts of jazz compositions and arrangements.
Compose/arrange short musical examples in the style of various artists/genres.
Recognize various jazz styles through listening.
Recognize various jazz styles through written notation. Compare and contrast various jazz styles in a critical context using current and historical sources.
MUS 357. Jazz Composition and Arranging (3).
Development of skills in songwriting, melody and chord progression, construction, and arranging in the jazz idiom through student projects and score analysis. Prerequisites: MUS 246 and MUS 255. Upon successful completion of this course, the student will be able to:
Demonstrate reharmonization of standard jazz chord progressions.
Demonstrate written knowledge of jazz scales and chords.
Demonstrate analysis skills with chord progressions. Demonstrate modification of jazz melodies.
Demonstrate modification of jazz styles, i.e. change a swing tune into Latin, etc.
Demonstrate knowledge of instrument ranges and other idiomatic details.
Demonstrate jazz orchestration technique.
Demonstrate chart layout technique.
MUS 359. Survey of Music in Cross-cultural Perspectives
(2). An introduction to ethnomusicology: the cultural context of music with emphasis on Africa, Asia, Native North and South America, Oceania. ANTH 359 and MUS 359 are equivalent courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:

Discuss and examine specific issues pertaining to the nature of musical creation.
Define ethnomusicological terms and concepts. Identify geographical distribution of musical phenomena and the stratification of music in society.
Aurally recognize and classify stylistic characteristics and write in a scholarly manner about various ethnic traditions and genres.
Identify the intellectual, personal, emotional, and political problems associated with intercultural musical contexts.
Recognize both the diversity and universality of the world's music.

## MUS 364. Major-applied

 Area (Individual Instruction)(1-2). Instruction available in performance areas A-H and K. May be repeated for credit. Prerequisite: MUS 264 (A-H, and K ) in appropriated applied area.
Upon successful completion of this course, the student will be able to:
Demonstrate musicianship through the artistic mastery of the instrument.
Acquire intermediate pedagogical knowledge of the instrument.
Demonstrate intermediate/advanced proficiency in rhythm, sightreading, and style. Acquire knowledge and develop intermediate/advanced performance ability through the study of basic literature of the instrument appropriate to the level of study.

## MUS 366. Applied Jazz

(Individual Instruction) (1).
Private study on instruments secondary to a student's major performance area. Intended particularly for advanced students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available in performance areas A-E, G and
H. One credit any quarter, may
be repeated. Prerequisites: at
least two quarters at the MUS
264 level and admission to the
BA music jazz specialization.
Upon successful completion of this course, the student will be able to:
Steadily and continually develop technical skills on their instrument in the jazz idiom according to the progression on the Jazz Jury Rubric.
Steadily and continually memorize jazz standards on their instrument in the jazz idiom according to the progression on the Jazz Jury Rubric.
Steadily and continually
develop musical skills on their instrument in the classical idiom according to the progression on the Jazz Jury Rubric.
Steadily and continually develop jazz vocabulary on their instrument in the jazz idiom through transcribing and performing jazz master improvisations according to the progression on the Jazz Jury Rubric.
MUS 370. Applied Area (Individual Instruction: Secondary or Major Supplementary) (1). Private study in area secondary to major performance area, or supplemental instruction in major performance area. Intended for advanced students who wish to develop additional performance skills to enrich their total music background. By permission. May be repeated for credit. Upon successful completion of this course, the student will be able to:
Extend technical and musical skill, independently and with instructor assistance, in a secondary performance area OR in their major area supplemental to fulfillment of degree requirements.
MUS 372. Music History 1
(3). Study of music history. The first in a three-quarter sequence. Prerequisites: MUS

146 with a C or higher, and MUS 154A.
Upon successful completion of this course, the student will be able to:
Identify the different types of music available during the Medieval, Renaissance, and Early Baroque periods, either by music score or listening example.
Demonstrate knowledge of the different musical forms and genres of the Medieval, Renaissance, and Early Baroque periods, how they evolved, and their relationship within the culture and society of the time.
Demonstrate knowledge of the primary composers of the Medieval, Renaissance, and Early Baroque periods.
Write in a scholarly manner about various styles of music.
MUS 373. Music History 2
(3). A study of music history. The second of a three-quarter sequence. Prerequisites: MUS 244 and MUS 372.
Upon successful completion of this course, the student will be able to:
Identify the different types of music available during the late Baroque, Classical, and Romantic periods, either by music score or listening example.
Demonstrate knowledge of the different musical forms and genres of the late Baroque, Classical, and Romantic periods, how they evolved, and their relationship within the culture and society of the time. Demonstrate knowledge of the primary composers of the late Baroque, Classical, and Romantic periods. Write in a scholarly manner about various styles of music.
MUS 374. Music History 3
(3). A study of music history. The third of a three-quarter sequence. Prerequisites: MUS 245 and MUS 373.
Upon successful completion of this course, the student will be able to:
Identify the different types of music available during the Late

Romantic and Modern time periods, either by music score or listening example. Demonstrate knowledge of the different musical forms and genres of the Late Romantic and Modern time periods, how they evolved, and their relationship within the culture and society of the time. Demonstrate knowledge of the primary composers of the Late Romantic and Modern time periods time period. Write in a scholarly manner about various styles of music.
MUS 379. Philosophy of Music (On reserve as of $9 / 16 / 15$ ) (3). Great music as a source of insights into human beings and the world. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.

## MUS 380. Music History

Review (3). A review of the material presented in the required undergraduate music history sequence. Specifically intended for graduate students. The final exam will be equivalent to the graduate music history diagnostic examination. May not be used to satisfy upper-division undergraduate or graduate degree requirements. Required for graduate students not passing Music History diagnostic test. Grade will either be S or U .
MUS 382. Survey of
Chamber Music (3).
Prerequisite: MUS 372.
MUS 383. Survey of
Symphonic Music (3).
Prerequisite: MUS 372.
MUS 384. Survey of Choral
Music (3). Prerequisite: MUS 372.

MUS 385. Survey of Opera
(3). Prerequisite: MUS 372.

MUS 386. Survey of 20th-
century Music (3).
Prerequisite: MUS 372.
MUS 396. Individual Study
(1-6). May be repeated if subject is different.
MUS 397. Honors (1-12).
Prerequisite: admission to department honors program.

MUS 397. Honors (1-12).
Prerequisite: admission to department honors program.
MUS 398. Special Topics (16).

MUS 399. Seminar (1-5). May
be repeated if subject is
different.

## MUS 400. Recital

Performance (1). Recital performance required for the completion of degrees requiring MUS 464-level applied study. Grade will either be S or U. Prerequisite: 3 credits of any MUS 464. Corequisite: any MUS 464. Upon successful completion of this course, the student will be able to:
Demonstrate performance mastery of appropriate repertoire for MUS 464 applied studies.
Demonstrate technical proficiency and artistry appropriate to MUS 464 level repertoire.
Demonstrate skills necessary for adequate preparation of recital.
MUS 410. Vocal Jazz Choir
(1). An ensemble specializing in performance of repertoire from jazz choir tradition established in the Northwest and beyond. Must attend all scheduled rehearsals and performances. For juniors and seniors. Limited to SATB singers and rhythm section instruments. May be repeated for credit. Prerequisite: junior standing or above. Upon successful completion of this course, the student will be able to:
Demonstrate characteristic jazz
tone quality on their
instruments and voices.
Demonstrate characteristic jazz
phrasing and style on their
instruments and voices.
Work together to create a cohesive group sound with an overall high quality artistic, emotional and technical impact.
Perform a wide variety of music composed and arranged for the vocal jazz ensemble.

Improvise in a vocal jazz ensemble setting, including musical interaction within the ensemble.
MUS 411. Women's Choir
(1). May be repeated for credit. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Sing a wide variety of choral literature
Sing musically and in tune
Sing in unison, and their own
parts amid two, three or four
other voice parts
Sing with healthy vocal technique
Sing music with historic authenticity
MUS 413. Flute Choir (1).
Previous experience in flute performance and permission of instructor. Two hours of rehearsal per week plus all scheduled rehearsals and performances. May be repeated for credit. Prerequisite: junior standing or above.
MUS 414. Brass Choir (1). See MUS 214 for description. May be repeated for credit. Prerequisite: junior standing or above.

## MUS 415. Chamber

Orchestra (1). May be repeated for credit. Two hours rehearsal per week plus all scheduled rehearsals and performances. By audition. Course will be offered every year (Winter and Spring). Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style Demonstrate leadership competencies appropriate to ensemble playing including
leading sectionals, understanding the full score and how your part fits into the whole, and nonverbal artistic communication Practice sight reading skills
MUS 417. Chamber Music
Ensemble (1). One hour coaching plus two hours rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas A-I, K, L. By audition. May be repeated for credit. Course will be offered every year (Fall and Winter).
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including
Improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style Demonstrate leadership competencies appropriate to ensemble playing including leading sectionals, understanding the full score and how your part fits into the whole, and nonverbal artistic communication Practice sight reading skills MUS 418. Jazz Combo (1). Performance in jazz combos in various configurations. May be repeated for credit.
Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Direct jazz combo rehearsals, using efficient and productive rehearsal techniques and performance practices. Rehearse and perform literature from the jazz combo genre in a variety of styles. Create high quality written and head arrangements of the music they are rehearsing for performance.

Produce a high quality performance of their combo repertoire.
Improvise in a jazz combo setting, including musical interaction within the ensemble.
MUS 420. Composition 4 (3).
May be repeated up to 9 credits. Prerequisite: 6 credits of MUS 320.
Upon successful completion of this course, the student will be able to:
Identify forms and structural elements in compositions including: form, phrase structure, modulations, and transitions.
Aurally identify, discuss, and analyze formal structures of a composition including: form, key centers, modulation, secondary functions, tonicization, chromaticism, change of orchestration, transitions, types of modulation, and compositional techniques.
Identify the performance practice of certain composers.
Recognize the "voice" certain composers exemplify in their music and understand what characterizes such a voice and find ways to begin to create their own "voice." Incorporate terminology/techniques pertaining to melodic development, form, structure, harmony, style, and compositional techniques. Compose original works incorporating theoretical knowledge while developing a creative and unique "voice." Demonstrate proficiency of notation software such as Finale or Sibelius.
MUS 422. Orchestration (3). Instrumentation. May be repeated for credit.
Prerequisites: MUS 246 with a grade of C or higher and MUS 372.

Upon successful completion of this course, the student will be able to:
Identify specific characteristics of each instrument and understand the principles of
scoring for each instrument category.
Recognize and apply terminology, transpositions, scoring techniques, and notation pertaining to individual instruments, instrument categories, and ensembles.
Identify and incorporate special devices and special effects for specific instruments both written and aurally. Transcribe and/or arrange short excerpts for a given instrumentation.
MUS 423. Advanced
Orchestration (3). Study of various scores and treatises. Individual projects.
Prerequisite: MUS 422A.
Upon successful completion of this course, the student will be able to:
Identify specific characteristics of each instrument and understand the principles of scoring for each instrument category.
Recognize and apply terminology, transpositions, scoring techniques, and notation pertaining to individual instruments and instrument categories. Identify and incorporate special devices and special effects for specific instruments both written and aurally. Transcribe and/or arrange excerpts of a substantial length for a given instrumentation. Interpret musical treatises and demonstrate a mastery of score reading through the recognition of musical syntax, structural elements, and notation details. Recognize and apply terminology, scoring techniques, transpositions, and notation pertaining to larger ensembles.
MUS 424. Jazz Pedagogy (3). Jazz-specific teaching methods, strategies, literature and materials primarily for application in a public school setting, grades 6-12, vocal or instrumental. Recommended for, but not limited to, music education majors. This course is a part of the Teacher

Preparation Program.
Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate an awareness of jazz education history and trends and compare with jazz performance history Demonstrate how to establish a jazz program in a school setting and strategies and/ or methods for developing jazz skills in students Demonstrate rehearsal techniques and strategies in student ensembles Demonstrate rhythm section techniques
Develop lists of appropriate equipment in school settings and compile lists of jazz resources in various media Develop philosophies concerning festivals and contests
MUS 425. Pedagogy (Studio)
(3). Teaching methods and materials. Instruction available in performance areas A-E,G, and H. By permission.
MUS 426. Literature (Studio)
(3). Literature related to the specific applied area for teaching and performance purposes. Instruction available in performance areas A-E, and G. By permission.

MUS 428. Men's Choir (1).
May be repeated for credit. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Sing a wide variety of choral literature
Sing musically and in tune
Sing in unison, and their own parts amid two, three or four other voice parts
Sing with healthy vocal technique
Sing music with historic authenticity
Sing accompanied and
unaccompanied music
MUS 429. Percussion
Ensemble (1). Two hours rehearsal per week plus all scheduled rehearsals and
performances. By audition.
May be repeated for
credit. Course will be offered every year (Fall, Winter, and Spring). Prerequisite: junior standing or above. Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including: improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble
Perform quality music of varying time periods in the appropriate style
Demonstrate leadership competencies appropriate to ensemble playing including leading sectionals, understanding the full score and how your part fits into the whole, and nonverbal artistic communication Practice sight reading skills MUS 432. Big Band (1). Must attend all scheduled rehearsals and performances. MUS 232 for freshmen and sophomores. May be repeated for credit. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate characteristic jazz
tone quality on their
instruments.
Demonstrate characteristic jazz
phrasing and style on their instruments.
Work together to create a cohesive group sound with an overall high quality artistic, emotional and technical impact.
Perform a wide variety of music composed and arranged for the jazz big band. Improvise in a jazz big band setting, including musical interaction within the ensemble.
MUS 435. Laboratory Choir
(1). See MUS 235 for
description. May be repeated for credit.
MUS 440. Analytical
Techniques II (3). Emphasis
on 20th century music, including contemporary extrapolations from Schenker's methods, pitch class, and parametric analysis techniques. Prerequisite: MUS 340.
MUS 461. Opera Workshop (1-2). A class leading to the performance of scenes or single acts from opera. May be repeated for credit. By audition. Course will be offered on even numbered years (Spring).
Prerequisites: junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including: improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble Perform quality music of varying time periods in the appropriate style Demonstrate leadership competencies appropriate to ensemble playing including leading sectionals, understanding the full score and how your part fits into the whole, and nonverbal artistic communication
Practice sight reading skills
MUS 462. Opera Production
(1-3). A class leading to performance of a complete opera. MUS 462 and MUS 562 are layered courses; students not receive credit for both. May be repeated for credit. Prerequisite: junior standing for above.
Upon successful completion of this course, the student will be able to:
Prepare an operatic role musically, including professional preparation expectations and the proper musical style for the period and genre.
Prepare an operatic role dramatically, including character study and preparation as well as state protocol and execution.

Integrate their musical and dramatic preparation into practical performance experience in the final culminating performances. Participate in all aspects of opera production, including building sets and costumes, running stage equipment and using proper stage procedure.
MUS 464. Major Applied Area (Individual Instruction)
(3). Instruction available in performance areas A-H and K. Additional fees required. Lessons available in applied areas. May be repeated for credit. Prerequisite: MUS 364 A-E, G, H, and L.
Upon successful completion of this course, the student will be able to:
Demonstrate musicianship through the artistic mastery of the instrument.
Acquire advanced pedagogical knowledge of the instrument.
Demonstrate advanced
proficiency in rhythm, sightreading, and style.
Acquire knowledge and develop advanced performance ability through the study of basic literature of the instrument appropriate to the level of study.

## MUS 466. Wind Ensemble

(1-2). See MUS 266 for description. One credit if offered one term only during summer session. By permission. May be repeated for credit. Prerequisites: junior standing or above.
MUS 467. Choir (1-2). Open to all students by audition. Five hours rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during
summer session. May be repeated for credit.
Prerequisite: junior standing or above.
MUS 468. Chamber Choir
(2). See MUS 268 for complete description. May be repeated for credit. Prerequisite: junior standing or above.
MUS 469. Symphonic Winds (2). Winter and spring quarters only. Five hours of rehearsal
per week plus scheduled rehearsals and performances. During winter and spring quarters the symphonic band will present several formal concert programs. Membership is by audition only. May be repeated up to 18 credits. Course will be offered every year (Winter, Spring).
Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Develop individual creative and interpretive skills in a group environment. Interpret music in the collaborative atmosphere of ensemble and section settings. Demonstrate leadership and team working skills required when performing in a music ensemble with others. Employ and improve musical and technical skills through ensemble and sectional rehearsal and the individual practice of parts.
MUS 477. Orchestra (1-2).
Open to all students proficient on orchestral instruments by audition. Five hours rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session. May be repeated for credit. Course will be offered every year (Fall, Winter, and Spring). Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate fundamentals of proper tonal production including: improve their recognition of aural skills including using intervals, rhythms, and listening to other sections in the ensemble Perform quality music of varying time periods in the appropriate style Demonstrate leadership competencies appropriate to ensemble playing including leading sectionals, understanding the full score and how your part fits into the
whole, and nonverbal artistic communication
Practice sight reading skills
MUS 480. Reed Making for Double Reed Instruments (1). MUS 484. Instrumental Arranging (3). Course will focus on skills needed to write and arrange music for junior and senior high school instrumental ensembles. Course will be offered every year (Spring). Prerequisite: MUS 246.
Upon successful completion of this course, the student will be able to:
Define and explain
terminology, ranges, transpositions, scoring techniques, and notation pertaining to individual instruments, instrument categories, and larger ensembles.
Identify and use appropriate ranges for elementary, middle/jr.high, high school students, collegiate, and professional performers in instrumental arrangements. Identify instruments, special effects and devices, and scoring techniques aurally . Incorporate the use of technology in instrumental arranging through the use of Sibelius or Finale (music notation software). Transcribe original works into arrangements for new instrument combinations. Examine compositions, arrangements and orchestration practices of reputable professionals in the field. Evaluate instrumental arrangements for appropriate range, rhythm, harmony, and overall construction for suitable use in the classroom context.
Use appropriate instrumental arranging tools to shape creative and imaginative arrangements appropriate for a variety of ability levels, from beginner to professional. Create original arrangements of pre-existing musical material using specified guidelines.

Evaluate instrumental arrangements and compositions for appropriate range, rhythm, harmony, and overall construction suitable for use in the classroom context.
MUS 485. Choral Arranging
(3). Course will focus skills needed to write and arrange music junior and senior high school vocal ensembles.
MUS 486. Jazz Band Arranging (3).
Orchestration/arranging techniques in the jazz band idiom, including writing for smaller jazz ensembles, specialized instrumentation, and the big band. Especially useful for music educators. Prerequisites: MUS 246 and MUS 255.
Upon successful completion of this course, the student will be able to:
Demonstrate reharmonization of standard jazz chord progressions.
Demonstrate written knowledge of jazz scales and chords.
Demonstrate analysis skills with chord progressions. Demonstrate modification of jazz melodies.
Demonstrate modification of jazz styles, i.e. change a swing tune into latin, etc.
Demonstrate knowledge of instrument ranges and other idiomatic details.
Demonstrate jazz orchestration technique.
Demonstrate chart layout technique.
MUS 487. Marching and Concert Band (2). Fall quarter only. May be repeated for credit. Prerequisite: junior standing or above.
MUS 488. Symphonic Band
(2). Winter and spring quarters only. See MUS 288 for description. May be repeated for credit. Prerequisite: junior standing or above.
MUS 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This
contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
MUS 491. Workshop or Clinic (1-6).
MUS 492. Accompanying
Practicum (1-3). By
assignment of instructor. Minimum of three hours of rehearsal weekly per credit plus performances. May be repeated for credit.
Prerequisite: junior standing or above.
MUS 495. Senior Project (2).
Students are required, as a
senior project, to present a recital, composition, or piece of research. May be repeated for credit.
MUS 496. Individual Study (1-6).
MUS 497. Honors (1-12).
Prerequisite: admission to department honors program.
MUS 498. Special Topics (16).

MUS 499. Seminar (1-5).
MUS 144A. Aural Skills 1
(1). Basic fundamental
concepts of common-practice period melody, harmony, and rhythm through ear training, sight-singing, dictation, rhythm, and basic keyboard applications. This course is the first in the three quarter, first year aural skills sequence. Courses must be taken in sequence. Prerequisite: online fundamental exam with $75 \%$ or higher, or successful completion of the online fundamental course. Corequisite: MUS 152A. Upon successful completion of this course, the student will be able to:
Apply fundamental concepts through aural comprehension and identification of clefs, scales, key signatures, intervals, triads, and seventh chords.
Notate short melodic and harmonic diatonic dictation exercises.

Perform a variety of rhythmic patterns at sight.
Sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short tonal melodies.

## MUS 145A. Aural Skills 2

(1). Basic fundamental concepts of common-practice period melody, harmony, and rhythm through ear training, sight-singing, dictation, rhythm, and basic keyboard applications. This course is the second in the three quarter, first year aural skills sequence. Courses must be taken in sequence. Prerequisites: MUS 144 and MUS 144A with grades of C or higher. Corequisite: MUS 145A and MUS 152A or MUS 153A. Upon successful completion of this course, the student will be able to:
Apply fundamental concepts through aural comprehension and identification of clefs, scales, key signatures, intervals, triads, seventh chords, figured bass, phrase structure, and cadence types. Notate short melodic and harmonic diatonic dictation exercises.
Perform a variety of rhythmic patterns at sight.
Sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short tonal melodies.

## MUS 146A. Aural Skills 3

(1). Basic fundamental concepts of common-practice period melody, harmony, and rhythm through ear training, sight-singing, dictation, rhythm, and basic keyboard applications. This course is the third in the three quarter, first year aural skills sequence. Courses must be taken in sequence. Prerequisite: MUS 145 and MUS 145A with grades of C or higher. Corequisite: MUS 146A and MUS 154A or MUS 153A or MUS 154A.
Upon successful completion of this course, the student will be able to:

Apply fundamental concepts through aural comprehension and identification of clefs, scales, key signatures, intervals, triads, seventh chords, figured bass, and cadence types.
Apply fundamental concepts through aural comprehension and identification of non-chord tones (embellishing tones), resolution of dominant seventh chords, diatonic seventh chords, and texture types. Perform a variety of rhythmic patterns at sight.
Sing, using solfege, major and minor scales, intervals, triads, seventh chords, and short tonal melodies.
Notate short melodic and harmonic diatonic dictation exercises.
MUS 152A. Class Piano I (1).
Group instruction providing beginning skills to prepare for the piano proficiency requirement and to reinforce music theory concepts. Grade will either be S or U . Corequisites: MUS 144 and MUS 144A.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of clefs, note reading, hand position, posture, score markings, and basic terminology related to beginning piano students. Be able to play standard scales with correct fingering. Demonstrate proficiency of reading skills, technique, and rhythm through assigned beginning solo repertoire.
Demonstrate basic transposition skills of beginning level excerpts.
Be able to demonstrate basic harmonic progressions as presented in concurrent music theory class.
Demonstrate knowledge of basic theoretical concepts through keyboard applications.
MUS 153A. Class Piano II
(1). Group instruction providing
beginning/intermediate skills to prepare for the piano
proficiency requirement and to reinforce music theory concepts. Grade will either be S or U. Prerequisite: MUS 152A.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of
clefs, note reading, hand
position, posture, score
markings, and basic
terminology related to
beginning/intermediate piano students.
Be able to play standard scales
with correct fingering.
Demonstrate proficiency of
reading skills, technique, and rhythm through assigned beginning/intermediate solo repertoire.
Demonstrate basic transposition skills of beginning/intermediate level excerpts.
Be able to demonstrate basic
harmonic progressions as presented in concurrent music theory class.
Demonstrate knowledge of basic theoretical concepts through keyboard applications.

## MUS 154A. Class Piano III

(1). Group instruction
providing intermediate skills to
prepare for the piano
proficiency requirement and to reinforce music theory concepts. May be repeated up to 3 credits. Grade will either be S or U. Prerequisite: MUS 153A.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of
clefs, note reading, hand
position, posture, score
markings, and basic terminology related to intermediate piano students. Play standard scales with correct fingering. Demonstrate proficiency of reading skills, technique, and rhythm through assigned intermediate solo repertoire. Demonstrate basic transposition skills of intermediate level excerpts.

Demonstrate basic harmonic progressions as presented in concurrent music theory class. Demonstrate knowledge of basic theoretical concepts through keyboard applications.
MUS 154B. Class Voice for the Non-major (1). This course is designed for the nonmajor beginning voice student. Through group instruction the fundamentals of proper vocal production will be introduced and practiced; concepts of breathing, resonance and articulation. Students will prepare group songs and individual solos by the end of the quarter. May be repeated for credit. Prerequisite: each course prerequisite to the next numeral (A.) Piano I, II, III; (B.) Voice I, II; (H.) Guitar I, II.

Upon successful completion of this course, the student will be able to:
Properly use vocal and musical terminology and skills related to the study of voice.
Sing with confidence and poise.
Demonstrate command of beginning vocal skills. Demonstrate various approaches to the fundamentals of vocal technique: breathing, resonance and articulation in their own singing.
Identify their range and demonstrate beginning mastery of the vocal registers. Demonstrate fundamental concepts of diction: vowel formation, legato singing and free articulation of consonants.

## MUS 171A. Secondary

Applied Area Piano (1).
Private study on instruments secondary to a student's major performance area. Intended particularly for beginning students who wish to develop additional skills on an instrument or in voice to enrich their total music background. By permission. May be repeated for credit. One credit any quarter, may be repeated.

## MUS 252D. Class

Instrumental Methods:
Double Reeds (1). Techniques
and methods in applied instruction in music education. May be repeated for credit. Upon successful completion of this course, the student will be able to:
Play the oboe and bassoon at a beginning student level.
Start a beginning student on the oboe or bassoon and be able to demonstrate basic techniques of each instrument to the student.
Notice/fix problems of oboe and bassoon students through the high school level as well as in an individual lesson. Demonstrate knowledge of standard teaching materials and accessories (i.e. reeds, neck and seat straps, repair tools, etc.) for the oboe and bassoon.
MUS 253C. Class
Instrumental Methods
Strings I (1). Lower strings (cello and bass). Techniques and methods in applied instruction for music education. May be repeated for credit.
MUS 253D. Class
Instrumental Methods
Woodwinds I (1). Lower woodwinds (single reeds). Techniques and methods in applied instruction for music education. May be repeated for credit.

## MUS 253E. Class

Instrumental Methods Brass
I (1). Lower brass (trombone and tuba). Techniques and methods in applied instruction for music education. May be repeated for credit.
MUS 253G. Class
Instrumental Methods
Percussion I (1). Techniques and methods in applied instruction for music education. May be repeated for credit.

## MUS 254B. Class Vocal

Methods (1). A course designed to teach the music education student the fundamentals of group vocal instruction: basic vocal anatomy and physiology, common approaches to vocal technique instruction, how to prepare songs in English and
foreign languages, and beginning vocal performance strategies.
Upon successful completion of this course, the student will be able to:
Properly use vocal and musical terminology and skills related to the study of voice. Sing with confidence and poise in all areas of their musical studies and future teaching. Demonstrate command of beginning vocal skills. Demonstrate fundamental concepts of diction: vowel formation, legato singing and free articulation of consonants.
MUS 254C. Class
Instrumental Methods
Strings II (1). Upper strings
(violin and viola). Techniques
and methods in applied
instruction for music
education. May be repeated for credit.
MUS 254D. Class
Instrumental Methods
Woodwinds II (1). Upper
woodwinds (flute). Techniques
and methods in applied
instruction for music
education. May be repeated for credit.
MUS 254E. Class
Instrumental Methods Brass
II (1). Upper brass (horn and trumpet). Techniques and methods in applied instruction for music education. May be repeated for credit.
MUS 425A. Pedagogy
(Studio Piano) (3). Teaching methods and materials. By permission.
MUS 425B. Pedagogy, Vocal
(3). Teaching methods and materials. By permission.
MUS 426A. Literature
(Studio Piano) (3). Literature
related to the specific applied
area for teaching and
performance purposes. By
permission.
MUS 426H. Literature
(Studio Guitar) (3). Literature
related to the specific applied
area for teaching and
performance purposes. By
permission.
NUTR 101. Introduction to
Human Nutrition (5).

Fundamental nutritional concepts as related to health. Four hours lecture and one hour discussion per week. Course will be offered every year (Fall, Winter, Spring, Summer). NS-Applications Natural Science. Upon successful completion of this course, the student will be able to:
Describe how scientific and technological developments in the fields of nutrition and foods/agriculture contribute to our lives and create value. Recognize social, political, and ethical implications of scientific discoveries and technological advancements in the fields of nutrition and foods/agriculture.
Formulate questions in the fields of nutrition and foods/agriculture that can be addressed through scientific or technological solutions. Apply mathematical and quantitative reasoning to solve problems as they relate to nutrition and health.
Describe the rationale of the dietary recommendations in the prevention of chronic diseases and nutritional deficiencies and apply them to their own lives. Apply the principles of nutrition science to real-world decisions on diet and health. NUTR 240. Introduction to Foods (2). Examination of scientific principles of food preparation, function of ingredients, effects of preparation techniques, and nutritional considerations. Two hours lecture per week. Corequisite: NUTR 240LAB. Upon successful completion of this course, the student will be able to:
Identify the functional properties of the various ingredients used in food preparation and how they affect the quality of the product.
Identify the standards of food purchasing and storage to achieve maximum quality and nutrient retention.

NUTR 298. Special Topics (16).

NUTR 299. Seminar (1-5).
May be repeated if subject is different.

## NUTR 318. The Politics of

 Food and Health (3). Exploration of the politics of food from farm to table, and the implications for human and environmental health. HED 318 and NUTR 318 are crosslisted courses, students may not receive credit for both. Upon successful completion of this course, the student will be able to:Analyze changes in U.S. diet over time.
Question food systems, choices, and discourse relative to personal and population health.
Identify influential factors in the food environment relative to power.
Evaluate regulatory influence on food production, manufacturing, and distribution and the potential effects on human and environmental health.
Frame a food system issue, from a population health standpoint, for discussion.
NUTR 340. Management of Food Resources (2). Food management principles involved in the planning, purchasing, preparing, and serving of meals in relation to nutritional needs, social needs, food preferences, and resources. Prerequisites: NUTR 101 and NUTR 240. Upon successful completion of this course, the student will be able to:
Identify the impact of discretionary calories and physical activity on body weight
Recognize the role of food in promotion of a healthy lifestyle Recognize the socio-cultural and ethnic food consumption issues and trends for various consumers
Apply food science knowledge to functions of ingredients in food and how to apply this to recipes for diet therapy

Apply recipe modifications to meet dietary needs
Translate nutrition needs into menus for individuals and groups
Apply health promotion and disease prevention theories and guidelines
Know food and nutrition regulations regarding food labeling
NUTR 342. Quantity Food
Production and Service (4).
Principles and techniques of food production and food safety for restaurants, health care facilities, and other institutions. Corequisite:
NUTR 342LAB. Prerequisite:
NUTR 240.
NUTR 343. Foods and
Nutrition Professionalism (1).
Professional ethics, career readiness, and career research in foods and nutrition.
Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Develop a professional
portfolio
Identify characteristics of strong cover letters
Identify characteristics of professional resumes
Identify professional
organizations, resources, and
leadership opportunities within
the nutrition field
Develop strong
communication/interviewing skills
Demonstrate and
understanding of Code of Ethics
Perform self-assessments
Gain exposure to careers in
Nutrition from guest speakers
NUTR 344. Medical
Nutrition Therapy I (3).
Introduction to medical
nutrition therapy including
nutrition care process, diabetes, heart disease, and cancer. Prerequisites: NUTR 101 and
(BIOL 201 OR BIOL 355) and (CHEM 111 OR CHEM 181). Upon successful completion of this course, the student will be able to:

Demonstrate the scientific principles of human nutrition in health and disease. Understand the principles of nutrition assessment, planning, intervention, and evaluation. Know the fundamentals of effective communication and documentation.
NUTR 345. Nutrition and the
Lifecycle (5). Effects of nutrition on development, growth, and health, from conception through the older adult. Prerequisites: NUTR 101 or NUTR 433.
Upon successful completion of this course, the student will be able to:
Describe nutritional priorities
during each stage of the
lifecycle.
Discuss health maintenance and disease prevention as they are related to nutrition and nutritional status.
Discuss the physiology related to pregnancy, lactation, and growth.
Demonstrate effective and professional written communication and documentation when communicating with individuals.
Use the nutrition care process to make decisions, to identify nutrition related problems and determine and evaluate nutrition interventions.

## NUTR 347. Nutrition

 Education and Counseling(4). Introduction to educating individuals and groups about nutrition, from theory to application. Includes techniques, procedures, and skills related to successful nutrition counseling.
Prerequisite: NUTR 101.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to effectively interview a client and assess their learning needs. Evaluate an interview and critique it effectively. Demonstrate an understanding of educational theories and techniques by designing and
performing a nutrition education lesson.
Demonstrate appropriate interpersonal communication skills by using group consensus building, in performing interviews, and through the completion of the teaching assignment. Gain an understanding of how to promote change in a client. Demonstrate appropriate public speaking techniques in giving oral presentations.

## NUTR 350. Weight

Management (3). Study of the pathophysiology of obesity and the underlying principles of healthy weight assessment, achievement, and management. Prerequisite: NUTR 101 and declared major in food science and nutrition or by permission. Upon successful completion of this course, the student will be able to:
Understand how to assess healthy body weight. Understand different weight loss/gain theories and mechanisms.
Describe and summarize the roles of diet, body composition, healthy behaviors, and eating disorders in weight management. Describe the use of nutritional assessment tools in assessing healthy body weight/composition. Describe and summarize current controversial issues in weight management.
NUTR 396. Individual Study
(1-6). May be repeated if subject is different.
NUTR 397. Honors (1-12).
Prerequisite: admission to department honors program.
NUTR 398. Special Topics (16).

NUTR 399. Seminar (1-5). May be repeated if subject is different.

## NUTR 405. Hospitality

Catering (3). Basics of offpremise catering including menu planning, budgeting, logistics, and marketing.
NUTR 405, RT 405, and RT
505 are equivalent courses;
students may not receive credit for more than one.
Upon successful completion of this course, the student will be able to:
Describe the process and tasks needed to completely plan and implement an off premise catering event.
Identify basic tasks and steps
involved in catering an event
including budgeting, menu
planning, logistics, and service.
Outline the management issues
and concerns unique to off premises catering including marketing, financial management, human resources, and facilities.
Given a situation, be able to identify safety and sanitation problems.
Complete a business plan for a catering and event operation.
NUTR 406. Peer Nutrition Education Practicum (1).
Supervised experience as a nutrition educator at the Student Health Center and/or CWU Center for Sports Nutrition. May be repeated for credit. Prerequisite: NUTR 101,348 , and 446.
Upon successful completion of this course, the student willl be able to:
Complete a medical record note using the SOAP
(subjective, objective, assessment, plan) format or other similar medical note format.
Gather relevant information, make a clinical assessment and produce a plan for clients. Develop effective nutrition education materials.

## NUTR 433. Macronutrients

(3). Nutritional aspects of carbohydrates, proteins, lipids, water, and energy.
Prerequisites: CHEM 112 or CHEM 363.
Upon successful completion of this course, the student will be able to:
Discuss the Importance Of Nutrition Understanding
Among Health Professionals. Define types Of Study Designs.

Describe the Significance Of Carbohydrate, Protein And Fat In Human Nutrition.
Discuss the Chemical Nature
Of The Energy Nutrients And How They Affect Function. Describe the Digestion Of
Energy Nutrients In The Body. Define how The Body Gets
Energy And How It Is
Measured.
Know principles Of
Biochemistry And How They
Relate To Nutrition.
Know the Scientific Principles
Of Human Nutrition In Health And Disease.

## NUTR 436. Theory and Treatment of Eating

Disorders (3). This course will identify the history, theory, and treatment components of Eating Disorders. Medical, psychological, behavioral,physical and nutritional aspects of each will be addressed in addition to treatment components. Formerly NUTR 346; students may not receive credit for both. Prerequisite: NUTR 101.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the role of media and dieting on risk for an eating disorder. Demonstrate knowledge of diagnostic criteria for eating disorders.
Demonstrate knowledge of behavioral, physical, and psychological symptoms related to eating disorders. Demonstrate knowledge of current treatment approaches for eating disorders. Create an advertising campaign that promotes a real product in a healthy, positive manner to the general public.
NUTR 440. Experimental
Foods (2). Physical and chemical bases of food preparation. Experiment testing result of variation in ingredients and manipulative practice. Prerequisites: (NUTR 240, and NUTR 240LAB, and CHEM 112) AND (PSY 362 or EDCS 312).

Upon successful completion of this course, the student will be able to:
Describe and apply knowledge about the chemical and physical roles of food components in simple and complex food systems. Design and propose a food research project to determine the sensory impact of modifying ingredients that improve the nutritional quality of a food.
Employ statistical analyses to evaluate and interpret data collected through sensory evaluation panels and objective food testing.
Integrate data findings with known facts regarding ingredient manipulation in foods.
Write a technical report in a
style appropriate for a
professional scientific publication.

## NUTR 442. Nutrition

Assessment Laboratory (2).
Current tools for nutritional assessment with laboratory experience. One hour lecture and two hours laboratory per week. Prerequisite: NUTR 443. Upon successful completion of this course, the student will be able to:
Describe procedures and rationale as well as correctly carry out anthropometric methods of nutrition assessment. Describe procedures and rationale as well as correctly carry out laboratory methods of nutrition assessment. Describe limitations and complexities of interpreting anthropometric and laboratory values of nutrition assessment.
NUTR 443. Metabolism and Micronutrients (5). Effect of nutritional and physiological state on the regulation of carbohydrate, lipid, and protein metabolism. Metabolic and physiological role of vitamins and minerals. Prerequisites: NUTR 433 and CHEM 113, or CHEM 432 and BIOL 201, or BIOL 356.

Upon successful completion of this course, the student will be able to:
Describe the function and regulation of metabolic pathways as they relate to nutritional and other environmental factors.
Explain how the control of metabolic pathways in different organs are integrated in the intact animal under various physiological conditions.
Describe the role of vitamins and minerals in metabolism and regulation.

## NUTR 444. Medical

Nutrition Therapy II (3). The
influence of nutrition on physiological problems; disease and medical nutritional therapy; nutrition and health management. Prerequisites: NUTR 344, NUTR 443 and CHEM 113 or CHEM 432. Upon successful completion of this course, the student will be able to:
Demonstrate the scientific principles of human nutrition in disease of the GI tract, kidney, liver, pancreas and other organ and organ systems. Understand the principles of nutrition assessment, planning, intervention, and evaluation in clients with GI tract, kidney, liver, pancreas and other diseases with nutrition implications.
Know the fundamentals of effective communication and documentation.
NUTR 445. Experimental Food Research (1). Principles of experimental food research. Propose, conduct, analyze, and present original food research project. Prerequisites: NUTR 440 and NUTR 440LAB.
Upon successful completion of this course, the student will be able to:
Write an effective research proposal.
Interpret and critically evaluate statistical analysis of research data.
Report research results using language appropriate for scientific reporting.

Produce an effective research poster.
NUTR 446. Sports Nutrition
(3). Integration and application of scientifically based nutrition and exercise physiology principles that support and enhance performance and good health. NUTR 446 and EXSC 446 are cross-listed courses; students may not receive credit for both. Prerequisites: NUTR 101 and (CHEM 113 or EXSC 450).

Upon successful completion of this course, the student will be able to:
Identify energy systems
utilized during physical activity.
Demonstrate knowledge related to macronutrient, micronutrient, and fluid requirements based on type of physical activity.
Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical evidence-based practice decisions.
Identify the relationship between dietary intake and exercise performance. Identify proposed mechanisms and theories behind various popular ergogenic aids.

## NUTR 447. Community

Nutrition (3). National and international nutritional problems and programs. Prerequisites: either NUTR 101 or NUTR 433.
Upon successful completion of this course, the student will be able to:
Identify the laws, regulations and standards affecting dietetic practice.
Discuss problems that exist in meeting the nutritional needs of people in different societies. Illustrate the influence of socio- economic, cultural and psychological factors on food and nutrition behavior. Apply knowledge concerning community nutrition to other cultural/community groups. Examine the fundamentals of the political and legislative process.

Formulate a professional philosophy and value system for a personal approach to community nutrition problems. Assess the structure for health care and discuss the role of organizations in providing nutritional care to people.
NUTR 448. Food Service Systems Management (4). Application of organizational management and principles to food-service systems including organizing, staffing, controlling, planning, marketing, and leading. Prerequisites: NUTR 240 and NUTR 342.
Upon successful completion of this course, the student will be able to:
Identify various types of food service operations available, including customer base, type of menu, organization structure and types of service provided. Identify the components of menu planning and its impact on the foods service operation. Plan a menu for a foodservice operation.
Identify the procedures for food and supply procurement including development of product specifications. Define the elements of receiving, storage and inventory control.

## NUTR 490. Cooperative

Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervisor and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
NUTR 491. Workshop (1-6).
NUTR 495. Undergraduate
Research (1-6). Faculty supervised laboratory or field research experience. May be repeated up to 12 credits. Grade will be S or U . By permission of instructor. Course will be offered every
year. (Fall, Winter, Spring and Summer)
Upon successful completion of this course, the student will be able to:
Design and propose a research project.
Collect and analyze data and write a research project summary.
NUTR 496. Individual Study (1-6).
NUTR 497. Honors (1-12).
Prerequisite: admission to department honors program.
NUTR 497. Honors (1-12).
Prerequisite: admission to department honors program.
NUTR 498. Special Topics (16).

NUTR 499. Seminar (1-5).
NUTR 240LAB. Introduction to Foods Laboratory (2).
Additional material fees. Four hours per week. Corequisite: NUTR 240
Upon successful completion of this course, the student will be able to:
Identify the functional properties of the various ingredients used in food preparation and how they affect the quality of the product.
Identify the standards of food purchasing and storage to achieve maximum quality and nutrient retention.
NUTR 340LAB.
Management of Food Resources Laboratory (1).
Demonstration of food management principles. Twenty dollars materials fee. Prerequisite: NUTR 340.
Upon successful completion of this course, the student will be able to:
Evaluate sensory attributes of food
Recognize the role of food in promotion of a healthy lifestyle Calculate and interpret nutrient composition of foods
Apply food science knowledge to functions of ingredients in food and how to apply this to recipes for diet therapy
Apply recipe modifications to meet dietary needs

Translate nutrition needs into menus for individuals and groups
Apply health promotion and disease prevention theories and guidelines
NUTR 342LAB. Quantity Food Production and Service
Laboratory (1). Corequisite:
NUTR 342.
NUTR 440LAB.
Experimental Foods
Laboratory (1). Additional material fees. Co-requisite: NUTR 440.
Upon successful completion of this course, the student will be able to:
Describe and apply knowledge about the chemical and physical roles of food components in simple and complex food systems.
Write clear and concise
research reports that demonstrate critical thinking skills.
NUTR 445LAB.
Experimental Food Research
Laboratory (1). Product
production, sensory and
objective testing of experimental food research project. Co-requisite: NUTR 445.

Upon successful completion of this course, the student will be able to:
Work effectively within a research team and manage their time effectively.
Collect quality research data.
Describe basic principles of experimental research design.

## NUTR 492A. Dietetic

Practicum (10-18). Dietetic
Internship Experience. May not be repeated. Credits may not be used to apply to the Master's degree. Grade will be S or U . Permission required.
Prerequisite: permission required.
NUTR 492B. Dietetic
Practicum (10-18). Dietetic
Internship Experience. May not be repeated. Prerequisite, successful completion of 492A. Credits may not be used to apply to the Master's degree. Grade will be S or U . Prerequisite: NUTR 492A.

NUTR 492C. Dietetic
Practicum (10-18). Dietetic
Internship Experience. May not be repeated. Prerequisites, successful completion 492B. Credits may not be used to apply to the Master's degree. Grade will be S or U . Prerequisite: NUTR 492B.
OCED 492. Practicum (3-15). Grade will either be S or U . Prerequisite: permission of department chair.
PE 115. Beginning Climbing
(1). This course will introduce students to indoor rock climbing techniques. Including: climbing movement and top rope climbing skills. May be repeated up to 3 credits.
Upon successful completion of this course, the student will be able to:
Demonstrate the correct spotting technique. Identify the types of climbing holds.
Demonstrate the ability to move effectively on a wall by performing the following: square to the wall, front step, back step, straight arms, scumming, gripping techniques, precise placement, quite placement, edging, smearing, toeing and matching. Demonstrate the knowledge of how to practice and use resting and breathing techniques
PE 116. Intermediate
Climbing (1). This course will build indoor rock climbing skills learned in PE 115, beginning climbing, and introduce skills that will help students begin climbing outside. Including climbing movement, lead climbing, rappelling and anchor cleaning. May be repeated up to 3 credits. Prerequisite: PE 115 or instructor approval.
Upon successful completion of this course, the student will be able to:
Demonstrate correct lead belay and lead climbing technique. Identify types of climbing including, bouldering, top roping, leading sport climbing,
traditional climbing multipitch climbing and aid climbing. Demonstrate the ability to move effectively on a wall by performing the following: gripping techniques, hip twist, precise foot placement, heel booking and toe booking. Demonstrate knowledge of the causes and prevention of the most common overuse injuries in climbing.
Demonstrate ability to properly clean climbing gear from fixed anchors.
Demonstrate correct rappelling technique.
PE 118. Climbing Wall to
Rock (1). Introduction to outdoor rock climbing by ensuring proficiency in an indoor setting over 5 weeks and to be concluded with an outdoor climbing trip to utilize skills learned. Course focuses on anchor systems, rappelling, lead climbing and belaying, and trip planning. Climbing experience and a top rope belay certification required. Prerequisites: PE 115 or PE 116 or by permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate correct lead belay and lead climbing technique Identify types of equipment needed for outdoor rock climbing and the uses of each. Demonstrate proficiency in belaying and climbing movement.
Identify the differences associated with indoor climbing and outdoor climbing. Demonstrate ability to properly clean climbing gear from fixed anchors.
Demonstrate correct rappelling technique.
PE 220. Climbing Wall
Instructor (2). This course will prepare students to instruct climbing in an indoor setting. Students will learn to instruct both technical and movement climbing skills. This course will prepare students to receive a climbing wall instructor certification through the
professional climbing
instructors association. May be
repeated up to 6 credits. Course
will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency in belaying and climbing movement.
Demonstrate knowledge of teaching climbing skills. Demonstrate ability to perform rescue skills, including belay take-over, counter ascend, and pick-off.
Demonstrate ability to instruct a technical climbing lesson. Demonstrate ability to instruct a movement-based climbing lesson.
PE 298. Special Topics (1-6). PE 299. Seminar (1-5). May be repeated if subject is different.
PE 321. Football Coaching
(3).

PE 323. Basketball Coaching (3).

PE 324. Track Coaching (On reserve as of $9 / 16 / 15$ ) (3). Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$.
PE 325. Baseball Coaching
(3).

PE 326. Theory of Coaching
Soccer (3). This course
provides an in-depth examination of the coaching of soccer at all school age levels. May be repeated up to 6 credits.
Upon successful completion of this course, the student will be able to:
Identify different systems of play.
Identify the difference between defensive philosophies.
Collect a variety of statistics during a soccer game.
Create practice plans.
Coaching and organization issues in youth soccer. Describe the player positions used at various levels of play. Identify specific concepts based on developmental age of players.
PE 330. Volleyball Coach (3).

## PE 334. Physical Education

 Activities for the Elementary School (3). Selection, organization, and presentation of physical education activities in the elementary school. Prerequisite: current WSP/FBI fingerprint clearance, and conditional or full admission to the Teacher Certification Program.
## PE 346. Administration of

 Athletes (3). The course will provide the student with an overview of the role of the athletic director as the leader, manager, organizer, and director of the interscholastic and intercollegiate programs in public and private schools. Prerequisite: PE 365.Upon successful completion of this course, the student will be able to:
Express and maintain an individual philosophy of sport. Identify and know leadership skills.
Recognize essentials and nuances of scheduling events, transportation, and meetings. Recognize essentials and nuances of planning for and managing events.
PE 365. Foundations of Coaching (3). Introduction to principles and methods of coaching sports with children and youth.
Upon successful completion of this course, the student will be able to:
Demonstrate and understanding the purpose and value of sport experiences for children and youth.
Recognize differences in coaching objectives and coaching styles.
Recognize differences in communication skills and their impact in athletic coaching environments.
Demonstrate an understanding of principles of motivation. Demonstrate the ability to design a conditioning program for a selected sport.
Demonstrate an understanding of team management and risk management.

Qualify for certification from the American Sport Education Program (ASEP).
PE 396. Individual Study (1-
6). May be repeated if subject is different.
PE 397. Honors (1-12).
Prerequisite: admission to department honors program.
PE 398. Special Topics (1-6).
PE 399. Seminar (1-5). May
be repeated if subject is different.
PE 442. Field Work in
Physical Education (1-6).
Class to be arranged by college supervisor. May be repeated for credit. Grade will either be S or U.
PE 448. Coaching and Competitive Ethics (3). This course is to enable the student to understand and apply ethical values as a practitioner (coach) in the realm of competitive sport. Course will be offered every year (Spring).
Prerequisite: PE 365 OR declared sport management major.
Upon successful completion of this course, the student will be able to:
Be able to identify and outline critical and ethical values that exist in coaching. Be able to apply ethical decision-making in coaching situations, and justify those decisions.
Be able to articulate the purposes and functions of a
"code of ethics," and construct a code of ethics for an athletic team.
Be able to evaluate the relationship between ethics and competition.

## PE 453. Psychological and

 Sociological Foundations ofCoaching (3). Investigation of factors affecting individual and group behavior in the coaching of interscholastic sports. Course will be offered every year (Spring). Prerequisite: PE 365 OR declared sport management major. Upon successful completion of this course, the student will be able to:

Articulate factors affecting individual and group behavior in the coaching of interscholastic sport, and devise strategies for addressing those behaviors.
Identify basic ideas and beliefs that constitute dominant ideologies related to sports in American society (gender and sexuality, race/ethnicity/skin color, social class, etc.), and explain their influence on interscholastic sport.
Articulate the different psychosocial issues involving interscholastic sport athletes, and devise strategies for addressing those issues. Demonstrate the ability diagnose, and propose solutions to, the issues pertaining to recruiting and retaining student participation in sport.
PE 484. Legal Liability and Risk Management (Put on Reserve 9/16/16.) (3). Aspects of personal law, premises liability, and risk management affecting policy, and behavior within the physical education and coaching profession. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.)
Upon successful completion of this course, the student will be able to:
Discuss the legal foundations and responsibilities of physical education and coaching Analyze legal concepts including negligence, classification of users, contracts, human rights, labor law, ADA, property and torts as applied to the physical education and coaching field Create an effective risk management plan
Generate a risk assessment and risk management plan for a special event
Apply risk reduction principles for physical education and coaching
Demonstrate the use of the law to reduce risk in the management of physical education and coaching assignments

## PE 491. Workshop Clinic (1-

6). Letter grades or S or U grades may be given at the option of the Department of Physical Education. May be repeated for credit.
PE 492. Practicum (1-4). Practical experience working with children in physical education activities. May be repeated for credit. Four credits required in major. Prerequisite: four credits in physical education major. Upon successful completion of this course, the student will be able to:
Successfully complete 30
hours working in a supervised practicum placement. Demonstrate effective use of managerial and instructional routines to foster active, positive, and equitable learning experiences in the practicum. Plan instructional objectives and goals that are aligned to State Essential Academic Learning Requirements and NASPE National Standards in a lesson plan.
Reflect about their teaching and observations in the authentic setting by writing in their daily journal and overall teaching paper.

## PE 495. Field Work in Sport

Coaching (3). This course will provide the student with the opportunity to gain practical experience with current professionals in the field of sport coaching. By permission of instructor. Course will be offered every year (Fall, Winter, and Spring).
Prerequisites: PE 365 and PE
448; students must also complete CPR certification and a background check prior to registering for PE 495.
Upon successful completion of this course, the student will be able to:
Demonstrate and understand the rules associated with a specific sport. Demonstrate the ability to construct and implement quality sport specific practice plans.

Demonstrate positive communication skills and techniques towards successfully motivating and coaching athletes.
Demonstrate the ability to effectively teach sport specific skills and techniques. Demonstrate skills related to team operational management, risk management, and time management responsibilities. Create a network with professionals in the sport coaching field, thereby increasing job prospects and career advancement possibilities.
PE 496. Individual Study (16).

PE 497. Honors (1-12).
Prerequisite: admission to department honors program.
PE 498. Special Topics (1-6).
PE 499. Seminar (1-5).
PEAQ 110. Springboard
Diving (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Identify how to set the 1 meter board, how to approach and take-off.
Be introduced to physically performing beginning level, 1 meter dives.
Exhibit a cognitive understanding of the fundamentals of diving from the 1 meter board. Incorporate scoring and judging into their cognitive knowledge of diving.
PEAQ 111. Beginning Swimming (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Perform fundamental skills of swimming
Perform basic survival skills Improve physical conditioning through stroke practice

Demonstrate jumping and diving entries
PEAQ 112. Swimming (1). Swimming is designed to refine basic swimming skills, basic swim strokes and to improve physical fitness through swimming. If you have no swimming skills, register for beginning swimming. If you are looking for fitness, register for swim conditioning. Must be able to swim 50 yards. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Swim 50 yards performing 4 refined basic stroke skills of swimming.
Demonstrate enhanced
physical fitness by an
improved swim time for 100
yards and for 300 yards.
Apply the use of the time clock to predict a timed swim and practice swim endurance training bouts.
Analyze proper body positioning and streamlining in order to visualize swimming with good technique for 100 yards.

## PEAQ 113. Advanced

Swimming (1). Refinement of standard strokes and dives. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Prerequisite: ability to swim 200 yards continuously, employing at least three strokes.
PEAQ 114. Swim
Conditioning (1). Course may
be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Prerequisite: must be an intermediate swimmer. Upon successful completion of this course, the student will be able to:
Demonstrate swim etiquette Perform various training regimens

Demonstrate enhanced physical fitness in aerobic capacity, endurance and speed Regularly attend and participate in assigned workouts
Demonstrate competence in swim training
PEAQ 116. Water Polo (Put on reserve 9/16/17) (1).
Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17.
Will go inactive $8 / 24 / 2020$.)
Prerequisite: must be an intermediate swimmer. Upon successful completion of this course, the student will be able to:
Explain the rules, terminology and safety precautions specific to water polo Introduced to performing preparation training Swim train with the ball Perform interval training Demonstrate strategy during game play
PEAQ 118. Aquatic Conditioning (1). Designed
for non-swimmers and swimmers who want to improve/maintain cardiovascular endurance, increase flexibility, tone muscles in the water medium.
May be repeated for credit.
PEAQ 120. Advanced Springboard Diving (Put on Reserve 9/16/16.) (1).
Advanced diving is designed to further the students' knowledge and skill in springboard diving. Students will perform dives of varying degrees of difficulty.
Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on Reserve 9/16/16. Last taught in 2013.
Will go inactive $8 / 24 / 19$.)
Prerequisite: PEAQ 110.
Upon successful completion of this course, the student will be able to:
Perform advanced diving
skills.
Demonstrate knowledge of all dive categories.

Identify safety issues regarding diving as an activity.
Learn to properly fill in and complete a diving competition score sheet.
Demonstrate an understanding of body mechanics of proper technique for performing dives.
PEAQ 122. Deep Water
Fitness (1). High intensity deep water training program incorporating intervals, sports drills and water jogging. Uses buoyancy and resistance equipment. No swimming skills required.
Upon successful completion of this course, the student will be able to:
Demonstrate increased familiarity of water and water principles.
Demonstrate skills necessary to use equipment properly and for specific fitness goals. Demonstrate increased upper body muscular endurance. Demonstrate increased lower body muscular endurance. Demonstrate safety precautions appropriate to this activity.
PEAQ 198. Special Topics
(1).

PEAQ 221. Lifeguard
Training (3). American Red Cross-approved course for which certification may be granted. The course will include rescue technique, preventative lifeguarding, and conditioning. Two hours lecture and one hour laboratory per week.
Upon successful completion of this course, the student will be able to:
Demonstrate competence in swim training.
Demonstrate survival skills. Identify life guarding surveillance and rescue techniques.
Demonstrate decision making skills.
Demonstrate emergency injury prevention.
Demonstrate basic and advanced rescue skills.
PEAQ 298. Special Topics (1-
6). May be repeated if subject is different.

PEAQ 299. Seminar (1-5).
May be repeated if subject is different.
PEAQ 320. Water Safety
Instructor (3). Students
satisfactorily passing the Red Cross requirements will receive a Red Cross Water Safety Instructors Certificate. Two hours of lecture and two hours of laboratory per week. Upon successful completion of this course, the student will be able to:
Identify mechanics of the crawl stroke, breast stroke, elementary back stroke and butterfly.
Demonstrate a basic flutter kick, side kick, whip kick, and dolphin kick.
Identify various swim stroke and kicks.
Incorporate knowledge of various dangerous water environments, potential hazards and appropriate responses.
PEAQ 396. Individual Study (1-6). May be repeated if subject is different.
PEAQ 397. Honors (1-12).
Prerequisite: admission to department honors program.
PEAQ 398. Special Topics (1-
6). May be repeated if subject is different.
PEAQ 399. Seminar (1-5). May be repeated if subject is different.
PEAQ 496. Individual Study (1-5). May be repeated if subject is different.
PEAQ 497. Honors (1-12).
Prerequisite: admission to department honors program.
PEAQ 498. Special Topics (1-
6). May be repeated if subject is different.
PEAQ 499. Seminar (1-5).
May be repeated if subject is different.

## PEF 110. Conditioning

Exercises (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:

Exhibit knowledge of the principles of physical conditioning.
Perform exercise routines that
lead to enhanced physical conditioning.
Incorporate to their cognitive understanding the role nutrition plays in attaining and maintaining good physical condition.

## PEF 111. Intermediate <br> Conditioning Exercises (Put on reserve 9/16/17) (1).

Course may be repeated up to
12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.) Prerequisite: PEF 110. Upon successful completion of this course, the student will be able to:
Exhibit knowledge of the principles of physical conditioning.
Perform exercise routines that lead to enhanced physical conditioning for a specific sport(s).
Incorporate to their cognitive understanding the role nutrition plays in attaining and maintaining good physical condition.
Perform exercises specific to muscular development, for flexibility and for enhancing the cardiorespiratory system.
PEF 112. Ski Conditioning (Put on Reserve 9/16/16.) (1).
Course may be repeated up to
12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Improve physical fitness determined by improved cardiovascular conditioning, muscular endurance, strength and flexibility specific to primary muscles used in skiing.
Perform warm-up activities specific to skiing.
Improve cardiovascular fitness.

Perform core and balance exercises.
PEF 113. Weight Training
(1). Course may be repeated up
to 12 times for a maximum of
12 credits starting Spring 2016.
Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Perform basic weight training exercise
Perform exercises according to principles of training
Exhibit an understanding of basic musculosketal anatomy and its relation to weight training
Demonstrate good knowledge of the fundamentals of weight training
PEF 114. Intermediate
Weight Training (1). Course
may be repeated up to 12 times
for a maximum of 12 credits
starting Spring 2016. Past
repetitions will remain as coded. Prerequisite: PEF 113.
Upon successful completion of this course, the student will be able to:
Perform lifts with specific performance goals.
Perform exercises according to principles of training.
Exhibit an understanding of basic musculosketal anatomy and its relation to weight training.
Demonstrate good knowledge of the fundamentals of weight training.
Demonstrate an increased ability to perform weight training exercises.
PEF 115. Jogging (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Improve cardiovascular fitness. Perform appropriate warm-up and cool down stretches. Identify heart rate training zones for maximal cardiovascular benefit.

Participate in various types of training.
PEF 118. Military
Conditioning I (1). Physical
conditioning activities
designed to prepare the Army
ROTC student for Leader
Development Assessment course and active military duty. Course is work-out oriented with emphasis on physical fitness goals. Open to all CWU students. Meets three times weekly. May be repeated up to 4 credits.
Upon successful completion of this course, the student will be able to:
Improve cardiorespiratory endurance, which delivers oxygen and nutrients for muscular activity.
Improve muscular strength the greatest amount of force a muscle or muscle group can exert in a single effort. Improve muscular endurance the ability of a muscle or muscle group to perform repeated movements with a submaximal force for extended period of time.
PEF 119. Military
Conditioning II (1). Physical
conditioning activities designed to prepare the Army
ROTC student for Leader
Development Assessment course and active military duty. Course is work-out oriented with emphasis on physical fitness goals. Open to all CWU students. Meets three times weekly. May be repeated up to 4 credits.
Upon successful completion of this course, the student will be able to improve:
Cardiorespiratory endurance which delivers oxygen and nutrients for muscular activity Muscular strength - the greatest amount of force a muscle or muscle group can exert in a single effort
Muscular endurance - the ability of a muscle or muscle group to perform repeated movements with a submaximal force for extended period of time

PEF 120. Military
Conditioning III (1). Physical conditioning activities designed to prepare the Army
ROTC student for Leader
Development Assessment course and active military duty. Course is work out oriented with emphasis on physical fitness. Open to all CWU students. Meets three times weekly. May be repeated for credit.
PEF 121. Step Aerobics (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Accurately individualize the level of exercise intensity and exertion for the purpose of extracting maximum benefit Perform bench step routines commensurate with enhanced cardiovascular fitness Demonstrate good body mechanics and safe stepping techniques
Apply bench stepping rules to the principles of fitness training
PEF 122. Dance Fusion (1). Course combines elements of traditional high- and lowimpact dance aerobics with zumba, jazz, power yoga, and sport movements into basic combinations. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Accurately individualize the level of exercise intensity and exertion for the purpose of extracting maximum benefit. Perform aerobic dance fusion routines commensurate with enhanced cardiovascular fitness.
Demonstrate good body mechanics and techniques specific to power yoga, Zumba, jazz and hi/lo aerobic dance.

Apply the combined practices of aerobic dance fusion to the principles of fitness training and to a lifelong activity.
PEF 123. Aerobic Walking
(1). Assessment of present level of cardio respiratory fitness and prescription of an individualized aerobic walking exercise program for increasing and maintaining fitness. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Learn warm-up and cool-down flexibility exercises. Increase their cardiorespiratory fitness by aerobically walking at a prescribed target heartrate and duration.
Learn how to determine their individual resting, maximum, and training heart rate. Learn how to continue individually prescribed aerobic walking program for a minimum of 20 weeks.

## PEF 126. Kick/Box Aerobics

(1). Safe, effective aerobic work-out mimicking basic selfdefense, and boxing movements. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Explain the rules, guidelines.
and cognitive skills necessary
for active and enjoyable participation
Apply knowledge gained to pursue activities in a safe and appropriate manner Define terminology related to this activity
Demonstrate safety precautions
appropriate to this activity
Demonstrate the skills presented to the appropriate level of this activity Explain appropriate body mechanics related to the skills of this activity

Demonstrate
etiquette/sportsmanship appropriate for this activity
PEF 128. Glute/Abdominal
Conditioning (1). Course
emphasizes abdominal conditioning, gluteal toning, and core muscle strengthening in a low impact format. Background music and various equipment is used for an effective workout. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Interpret instructions regarding the proper execution of specific exercises, repetitions \& positioning of the body to another individual
Identify muscle groups related lo this activity
Incorporate specific exercises
into a lifestyle activity
Identify specific safety
precautions related to body
position
Demonstrate the skills presented at the beginning level and at a progressive level of this activity Participate in executing the exercises with regard to personal limitations and goals
PEF 129. Abdominal Strength Conditioning (1). Course emphasizes strengthening and conditioning the abdominals and core muscles for appearance and for performance. Use of equipment for fun and effectiveness. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Interpret instructions regarding the proper execution of specific exercises, repetitions \& positioning of the body to another individual
Identify muscle groups related to this activity

Incorporate specific exercises into a sport conditioning program
Identify specific safety precautions related to body position
Demonstrate exercise skills presented at the beginning level progressing to an advanced level of this activity Participate in executing the exercises with regard to personal limitations and sporting goals

## PEF 130. Triathlon Training

(1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Understand the mechanical aspects related to efficiency performance in all 3 sports. Identify sound physiological principles that underlie a sound training program.
Improve fitness in all 3 sports.
Complete a short course triathlon.
Participate in triathlon training one or two components (brick) at a time.
PEF 131. Frisbee (1). This course encourages positive social interaction, develops eye-hand coordination skills, is recreational, and may be an avenue to encourage students to become more active in a gentle way. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Show various techniques of throwing a Frisbee disc. Show various techniques of catching a Frisbee disc. Explain the physics of disc flight including spin, release angle and release height. Develop a general knowledge of Frisbee competitions including rules and strategies in accordance with World Flying Disc Federation,

Professional Disc Golf Association and Ultimate Players Association. Demonstrate concern for safety of self and others.
PEF 132. Women's Self
Defense (1). A program of realistic self-defense tactics and techniques for women, including education about awareness, prevention, risk reduction, and risk avoidance of violence. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of how to keep themselves safe while at home, traveling and dating.
Demonstrate knowledge of the basic principles of self-defense. Demonstrate how to use different parts of their bodies as weapons.
List vulnerable locations on the body.
Develop competence in 23
different self-defense tactics.
Use self-defense tactics in a
confrontational situation.
PEF 140. Stretch and
Strengthen with Fit Balls (1).
This course combines balance, stretch, and strength training using a variety of soft fitness balls. Dynamic balancing skills will be taught using the BOSU and physioball. Strength and core drills will be taught using medicine balls and sport balls. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Prerequisite: FCL 234.
Upon successful completion of this course, the student will be able to:
Explain general differences in soft fitness equipment balls according to use, size and progression of a given exercise.
Develop exercise progressions for strength, for flexibility and for balance.

Show proper body
form/mechanics during various active drills in solo, with a partner or in a small group, using various soft fitness equipment balls.
Learn the meaning of neutral spine, imprint, nod, dynamic stabilization, core, diaphramic breathing and other common vocabulary words and phrases related to the given exercise and course content. Identify an exercise progression moving from easiest to more challenging in terms of balance, core strength and flexibility.
PEF 150. Beginning Yoga (1).
Participation in stretching and then holding a variety of yoga postures. Will include demonstrations, benefits, contraindications, precautions of each posture. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Competently perform basic traditional yoga postures. Identify individual modifications of beginning yoga postures.
Apply the theoretical knowledge of correct alignment and techniques of more basic yoga postures.
PEF 151. Intermediate Yoga (1). This class will review and refine techniques learned in the beginning yoga class, as well as further discussion and practice of yoga postures and other topics related to yoga. Course may be repeated up to 12 times for a maximum of 12 credits.
Upon successful completion of this course, the student will be able to:
Competently perform intermediate yoga postures. Incorporate modifications of intermediate yoga postures.
Apply the theoretical knowledge of correct alignment techniques of more advanced yoga postures.

PEF 152. Advanced Yoga (1).
In this class more advanced yoga postures will be introduced and techniques learned in previous classes will be refined. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Competently perform advanced yoga postures.
Understand the benefits and modifications of advanced yoga postures.
Apply the theoretical
knowledge of correct alignment and techniques of more advanced yoga postures.
PEF 155. Hot Yoga Therapy
(1). Students practice 26 yoga postures, using heat therapy to promote muscle recovery, increased strength and flexibility, weight loss and detoxification. This unique style of yoga is beneficial to all students and athletics. No experience necessary. May be repeated up to 12 credits. Upon successful completion of this course, the student will be able to:
Demonstrate 26 yoga postures Identify and translate 26 yoga postures in Sanskrit Incorporate modifications according to the sequence of 26 postures
Identify a progressive sequence of moves specific to a hot therapy environment
PEF 198. Special Topics (1). PEF 201. Let's Move It, Move It (2). A personal healthrelated fitness course that provides scheduled physical movement sessions with classroom discussions incorporating a diet and nutrition component. May be repeated up to 4 credits. Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Create a broad integrated portfolio connecting modules
of log sheets based on physical activity and nutrition.
Participate in various physical movement activities designed to strengthen muscles, train cardiovascular system, test flexibility and maintain a healthy body weight. Identify benefits and basic principles of a safe, effective exercise program.
Analyze nutritional quality of commonly frequented fast food restaurants and/or campus dining facilities.
Interpret exercise movement myths associated with strengthening, stretching, cardio and other types of training.
Write a physical activity and food journal from the first week to the last week of the quarter.
PEF 298. Special Topics (1-
6). May be repeated if subject is different.
PEF 299. Seminar (1-5). May
be repeated if subject is
different.
PEF 396. Individual Study
(1-6). May be repeated if
subject is different.
PEF 397. Honors (1-12).
Prerequisite: admission to department honors program.
PEF 398. Special Topics (1-
6). May be repeated if subject is different.
PEF 399. Seminar (1-5). May
be repeated if subject is different.
PEF 496. Individual Study
(1-6). May be repeated if subject is different.
PEF 497. Honors (1-12).
Prerequisite: admission to department honors program.
PEF 498. Special Topics (1-
6). May be repeated if subject is different.
PEF 499. Seminar (1-5). May be repeated if subject is different.
PEID 110. Beginning
Badminton (1). Course may
be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.

Upon successful completion of this course, the student will be able to:
Demonstrate basic knowledge of the rules of badminton Demonstrate basic level of proficiency in serving and rallies
Hit the shuttle cock in a wide variety of trajectory shots
PEID 113. Beginning
Bowling (Put on reserve 9/16/17) (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Upon successful completion of this course, the student will be able to:
Show competence in scoring a bowling game
Become familiar with bowling
terms, rules and equipment
Use good bowling form
PEID 114. Intermediate
Bowling (Put on reserve
9/16/17) (1). (Put on reserve
$9 / 16 / 17$. Will go inactive
8/24/2020.) Prerequisite: PEID 113.

Upon successful completion of this course, the student will be able to:
Show competence in scoring a bowling game
Become familiar with bowling terms, rules and equipment
Use good bowling form
PEID 115. Beginning Golf
(1). Course may be repeated up
to 12 times for a maximum of
12 credits starting Spring 2016.
Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate proper
fundamental techniques
relating to the golf swing
Demonstrate knowledge of
basic rules and terminology
Demonstrate proper golf etiquette
PEID 116. Intermediate Golf
(1). Prerequisite: PEID 115.

PEID 117. Advanced Golf
(1).

Upon successful completion of this course, the student will be able to:
Demonstrate proper phases of the golf swing and putt.
Approach, align and make proper ball contact according to the club chosen.
Plot strategy on the course and make decisions during game play, from hole to hole and shot to shot.
PEID 120. Beginning Fencing (Put on Reserve 9/16/16.) (1). Put on Reserve 9/16/16. Last
taught in 2012. Will go
inactive 8/24/19.
Upon successful completion of this course, the student will be able to:
Execute basic attack and
defensive moves
Exhibit correct sabre fencing form
Judge performance
PEID 123. Beginning Tennis
(1). Course may be repeated up
to 12 times for a maximum of
12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate basic knowledge of the rules of tennis Demonstrate a basic level of proficiency in serving the ball, performing the backhand, forehand, lob, volley and smash stroke
Demonstrate basic knowledge of court positioning and strategies for playing singles and doubles
PEID 124. Intermediate Tennis (Put on reserve $9 / 16 / 17$ ) (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.) Prerequisite: PEID 123. Upon successful completion of this course, the student will be able to:
Demonstrate basic knowledge of the rules of tennis Demonstrate a basic level of proficiency in serving the ball,
performing the backhand, forehand, lob, volley and smash stroke
Demonstrate basic knowledge of court positioning and strategies for playing singles and doubles
PEID 125. Advanced Tennis (Put on reserve 9/16/17) (1).
Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.) Prerequisite: PEID 124.
Upon successful completion of this course, the student will be able to:
Exhibit extensive knowledge of rules of the game Exhibit extensive skill in the serving skills of the game Exhibit extensive skill in the volleying skills of the game Exhibit advanced tennis ground stokes
PEID 128. Beginning Skiing and Snowboarding (Put on Reserve 9/16/16.) (1).
Beginning skiing and snowboarding is designed to introduce the student to the basic knowledge of skiing and snowboarding techniques with the development of the physical skills necessary to participate safely. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on Reserve 9/16/16. Last taught in 2008. Will go inactive 8/24/19.)
Upon successful completion of this course, the student will be able to:
Be introduced to the basic physical skills necessary to participate in alpine skiing. Regularly attend and participate in the assigned ski class.
Practice and perform basic skills of skiing.
Be introduced to the basic physical skills necessary to participate in snowboarding, including bow to size for the appropriate equipment choices.

Regularly attend and participate in the assigned snowboarding class. Practice and perform the beginning safety and technical skills needed for snowboarding.
PEID 129. Intermediate Skiing (Put on Reserve
9/16/16.) (1). Put on Reserve 9/16/16. Last taught in 2008.
Will go inactive 8/24/19.
Prerequisite: PEID 128.
Upon successful completion of this course, the student will be able to:
Improve the physical skills necessary to participate in alpine skiing
Regularly attend and participate in assigned ski class
Practice and perform
intermediate skills of skiing
PEID 130. Cross Country
Skiing (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:
Physically experience x-c skiing for sport and for recreation
Identify the "10 essentials" Identify the basics of avalanche safety
PEID 134. Bicycling (Put on reserve $9 / 16 / 17$ ) (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.) Upon successful completion of this course, the student will be able to: Demonstrate basic knowledge in general bicycle repair and maintenance Obtain knowledge of safe riding and effective cycling techniques Identify basic nutritional rules for an endurance sport PEID
136. Pickleball (1). Class is designed to introduce student to basic skills, fundamentals, safety procedures and knowledge to participate in pickleball as a life long activity. Course may be
repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.

## PEID 137. Hiking and

 Orienteering (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:Identify basic map reading skills
Identify the " 10 essentials" Identify basic survival skills PEID 138. Karate (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Learn karate techniques
Develop an understanding of kinesthetic awareness
Understand the power of the human body
Provide flexibility, strength and endurance
PEID 140. Fly Fishing (1).
Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Exhibit the attributes of appreciating the art of fly fishing
Demonstrate basic knowledge of fly fishing
Identify the dynamics of fish behavior in their natural habitat

## PEID 145. Beginning Circus

Arts (1). Introduction to juggling, unicycling and similar skills involving balance and coordination. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. Upon successful completion of this course, the student will be able to:

Introduced to the basic skill of juggling
Introduced to the basic skill of diabolo
Introduced to the basic skill of flower sticks
Introduced to the basic skill of unicycling
PEID 147. Conceptual
Martial Arts (Put on Reserve
$9 / 16 / 16$. (1). This course is designed to introduce students to the techniques and motions of self-defense. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)
Upon successful completion of this course, the student will be able to:
Interpret instructions regarding the proper execution of specific blocks, kicks, and strikes. Demonstrate personal mastery of skills presented in class.
Self-correct errors and to identify errors in others. Demonstrate basic combat sets. Identify martial arts skills presented at the beginning level progressing to an advanced level in this activity.
PEID 150. Archery (1). This course teaches the fundamentals of safe archery practice and basics of the archery equipment. Course may be repeated up to 12 times for a maximum of 12 credits
starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Identify the Eleven Steps to Archery Success.
Identify the different parts of the bow and arrow and field targets.
Demonstrate the techniques that represent the Eleven Steps to Archery Success. Create a log book related to this activity.
Identify the purpose and meaning of the 4 whistle command.

Incorporate safe archery skills for a lifetime.
PEID 198. Special Topics (1). PEID 298. Special Topics (16).

PEID 299. Seminar (1-5).
May be repeated if subject is different.
PEID 396. Individual Study (1-6). May be repeated if subject is different.
PEID 397. Honors (1-12).
Prerequisite: admission to department honors program.
PEID 398. Special Topics (1-
6). May be repeated if subject is different.
PEID 399. Seminar (1-5).
May be repeated if subject is different.
PEID 496. Individual Study
(1-6). May be repeated if subject is different.
PEID 497. Honors (1-12).
Prerequisite: admission to department honors program.
PEID 498. Special Topics (1-
6). May be repeated if subject is different.
PEID 499. Seminar (1-5).
May be repeated if subject is different.
PESH 280. Foundations of Physical Education and School Health (4).
Fundamental issues, theories, paradigms, constructs, history, and experiences necessary for an understanding of teaching Health and Physical Education as a profession and lifestyle. Prerequisite: current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to:
Identify historical and contemporary influences on public school physical education and list five major historical events that have shaped health education as a profession.
Critique, edit, and rewrite work samples to improve the quality of content and structure. Demonstrate an effectiveness in critical reflection about current issues in physical education.
Define key terms and concepts related to infectious and
noninfectious diseases such as risk factors, common signs and symptoms, general treatment options and prevention and screening approaches. Demonstrate effective presentation skills by presenting their own philosophy of health and a philosophy of teaching physical education. Apply ethical principles to the practice of health education and physical education along with the principles of volunteerism. Describe and discuss the determinants of health and health behavior.
Describe and apply the following models used in Health Education: Health Belief Model, PRECEDE/PROCEED Model, Transtheoretical Model, Theory of Reasoned Action, Adoption Diffusion Model, and others.
PESH 298. Special Topics (16). May be repeated if subject is different.
PESH 299. Seminar (1-5).
May be repeated if subject is different.
PESH 300. Comprehensive
School Health Education (3).
This course is designed to provide the knowledge, skills, and dispositions needed to teach comprehensive school health education with a major emphasis on consumer/community health, environmental health, and personal health/safety. Prerequisite: PESH 280. Upon successful completion of this course, the student will be able to:
Demonstrate mastery of the role and function of each of the eight components of the coordinated school health program.
Locate a variety of health curriculum resources to help teach comprehensive health education. Explain the importance role modeling characteristics expected of a K-12
health/physical education teacher.
Demonstrate a conceptual understanding of the three of the ten comprehensive school health education content areas (consumer/community, personal health/safety, and environmental).
Appreciate the benefits of engaging in service learning through a six-hour community volunteerism experience. Deliver effective lessons and curriculum materials utilizing active learning teaching strategies related to the topics of community, consumer, environmental, and personal health \& safety.
PESH 326. Human Diseases
(3). Introduces students to fundamental principles relating to identification, prevention, and control of non-infectious and infectious diseases in contemporary society; emphasis on physical, social, psychological, and environmental issues surrounding these diseases. Prerequisite: PESH 280. Upon successful completion of this course, the student will be able to:
Identify and evaluate valid sources of information about health and physical education. Demonstrate an understanding of disease prevention. Foster relationships with colleagues, parents/ guardians, and community agencies to support educational growth and well- being.
Demonstrate an understanding of advocacy skills to promote health and fitness.
PESH 330. Positive Youth Development in Physical Activity (3). Provides philosophical and practical base for working in youth development programs. Focus on programs that serve youth through physical activity with special emphasis on goals of personal and social responsibility.
Upon successful completion of this course, the student will be able to:

Analyze various rationales and assumptions underlying youth development and positive youth development in the physical activity setting Identify various models and programs in youth development
Incorporate and apply principles of positive youth development
Address the needs of youth through physical activity
PESH 335. Practicum (Put on reserve as of $\mathbf{9 / 1 6 / 1 5}$.) (1).
Students will observe and assist in PE classes at elementary and secondary levels in a local school for 4 hours/week throughout the quarter. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:
Learn about several WA State physical education programs at both elementary and secondary levels.
Learn about the status of physical education nationwide. Compile a personal resource notebook illustrating trends and changes in physical education teaching.
PESH 336. Practicum 1 (2).
Physical education teaching practicum. Prerequisite: PESH 280, and current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to:
Demonstrate a knowledge of and ability to utilize the characteristics of effective teaching specific to all learners.
Demonstrate recognition of appropriate and inappropriate responses while teaching abroad spectrum of elementary students.
Demonstrate pedagogical skills and knowledge that is necessary to develop the cognitive, psychomotor, and affective domains of small groups of elementary students and effectively enhance their
ability to be successful lifelong activity participants
Demonstrate the use of formal and informal assessment techniques to assess learner performance, provide feedback, and communicate learner progress.
PESH 341. Characteristics of Effective Physical Education Teaching (3). Examination of selected pedagogical principles and their impact on the teaching of human movement. Prerequisite: PESH 280 or instructor permission for students pursuing the physical activity and recreational programming minor. Upon successful completion of this course, the student will be able to:
Identify and incorporate research based "best practice" pedagogical skills that are thought to comprise effective physical education teaching and the context in which these skills are learned into their lesson planning.
Create and implement appropriate learning/practice opportunities based on expected progressions and related to ranges of individual variations and levels of readiness.
Analyze and incorporate individual differences in planning and implementing developmentally appropriate physical education lessons. Reflect realistically and accurately on the learning of their students and its relation to the teaching process and their role as teacher.
PESH 342. Developmental Movement (4). Instruction in the analysis and teaching of movement concepts, locomotor, and non-locomotor skills. Prerequisite: PESH 280. Upon successful completion of this course, the student will be able to:
Organize developmentally appropriate progression for each of the skill themes and movement concepts. Identify and provide appropriate movement tasks
and instructional cues based on the observed skill level of children.
Accurately describe and demonstrate an appropriate progression of cues (critical elements) based on generic levels of skill proficiency. Demonstrate the knowledge to create interesting challenges that motivate children to continue to practice tasks. Identify critical elements for basic locomotor and stability skills and develop appropriate sequences.
Define and provide practical examples of skill themes, movement, and how they are taught effectively. Explain the need for generic levels of skill proficiency and how they are used in conjunction with skill themes to build a developmentally appropriate physical education curriculum for children.
Demonstrate with competence basic locomotor and stability
skills including rhythms and physical activities (sports, games, lifelong leisure activities).
PESH 343. Pedagogical Application of Teaching Styles and Systematic Reflection (3). The purpose of this course is to expand your already-developed effective teaching skills and knowledge to include styles of teaching and systematic analysis. Prerequisites: PESH 280 and PESH 341 and PESH 342 or instructor permission for students pursuing the physical activity recreational programming minor.
PESH 344. Applications of Technology in Teaching Fitness and Physical Activity
(3). Introduces students to the plethora of technological
advances being used to teach children about their health. Prerequisite: PESH 280, and current WSP/FBI fingerprint clearance. Corequisite: PESH 341.

Upon successful completion of this course, the student will be able to:

Demonstrate knowledge of the skills necessary to perform skill analysis through a technology medium. Create a fitness plan within software specific tools. Utilize technology to enhance student motivation and knowledge related to fitness and health in general. Apply knowledge of pedometers and heart rate monitors in a physical activity setting.
Use technology to accommodate for individual differences in learning and fitness levels.
Create grades for students using a variety of Physical Education specific grading programs.
PESH 345. School Health
Curriculum (3). This course is designed to expose learners to current school based health education curricula, materials, and strategies necessary to effectively teach comprehensive school health education in the $\mathrm{K}-12$ setting. Formerly HED 345, students may not receive credit for both. Prerequisites: HED 210. Upon successful completion of this course, the student will be able to:
Integrate national and state health education standards into health lesson \& unit plans. Locate a variety of health curriculum resources necessary teach comprehensive school health education. Demonstrate a conceptual understanding of the seven of the ten comprehensive school health education content areas. Articulate their philosophical views on the current and future trends of comprehensive school health education. Deliver effective lessons and curriculum materials utilizing active learning teaching strategies related to various topics found in the scope and sequence of comprehensive school health education.
PESH 348. Tactics and Skills of Striking and Net/Wall
Games (3). This course will
cover the content of tactics and striking skills in a variety of net/wall games (e.g. badminton, handball, pickleball, tennis, volleyball). Prerequisites: PESH 280, and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Demonstrate proficient game performance skills in striking skills and net/wall games. Identify research proven practices based on age and developmentally appropriate progressions.
Identify critical elements for basic manipulative striking skills and develop appropriate sequences to help students achieve proficiency Demonstrate an understanding of rules and procedures of games by applying them during game play and within more abstract settings. Create and design a group sport education model portfolio in one sport.
Provide a clear comparison of one of the striking sport skills prior to learning to play the sport and your skills after playing the sport.

## PESH 350. Utilizing Tactics

 and Skills for InvasionGames (3). This course will cover the content of invasion games and sports (e.g., basketball, soccer, lacrosse, rugby, hockey). Prerequisites: PESH 280 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Demonstrate with competence basic motor skills, rhythms, physical activities, and fitness (Movement concepts, locomotor skills, nonlocomotor skills, manipulative skills, specialized motor skills, game skills, and sports skills). Identify research proven practices based on age and developmentally appropriate progressions in physical education.

Identify and evaluate valid sources of information about health and physical education. Demonstrate proficient game performance skills in various invasion tactic games. Demonstrate an understanding of rules and procedures of games by applying them during game play and within more abstract settings.
PESH 356. Teaching Lifelong Physical Activity Pursuits (3).
Introduces students to
methodology related to
teaching nontraditional activities in traditional and nontraditional settings.
Prerequisites: PESH 280, PESH 341, PESH 342, PESH
343 or instructor permission
for students pursuing the physical activity and recreational programming minor.
Upon successful completion of this course, the student will be able to:
Create a video representation and qualitative analysis on one skill activity (one week and one strong skill).
Write 10 developmentally appropriate lesson plans for a particular grade level. Find an article that relates to the benefits of physical activity or how the activity is being used in the schools. Write an abstract on the article.
PESH 358. Applications of Resistance, Core, and Cardiovascular Training (3). Students will develop, using sound research practice, skills to deliver group exercise training programs to classes at the secondary level. Emphasis is placed on resistance, core, and cardiovascular physical activities.
Upon successful completion of this course, the student will be able to:
Identify the components of skill related fitness and training principles and be able to link fitness knowledge content with practical application through participation in physical activity.

Demonstrate exercise progressions and multiple muscle group modifications. Develop a combination of dynamic warm-up exercises specific to the intended workout.
Prepare locomotive skills or non- locomotive skills or strength training movement patterns and deliver to a group of exercise participants (class). Effectively cue movement patterns pertaining to form, alignment, muscle groups, and actions.
PESH 385. Health and Physiological Fitness Concepts for Teachers (Put on reserve as of $9 / 16 / 15$.) (3).
This class is designed to provide health and physical education to pre-service teachers; physiological information with an emphasis on application, and its direct implications on teaching K-12 students. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge about the structure and function of the human muscle. Describe and create muscular improvement programs specific to the needs of individuals.
Describe in detail the specifics concerning the energy metabolism and its sources of fuel.
Identify specific metabolic adaptations that occur as a result of a variety of training methods.
Identify detailed explanations of the nervous system and the importance of its contribution to the control of bodily movement.
Demonstrate knowledge concerning basic anatomy and physiology of the cardiovascular system. Describe the relationship between the cardiovascular system and physical activity. Detail all related components of the specificity of training
principle relative to each
physiological component, and its potential impact.
PESH 396. Individual Study (1-6). May be repeated if subject is different.
PESH 397. Honors (1-12).
Prerequisite: admission to department honors program.
PESH 398. Special Topics (16). May be repeated if subject is different.
PESH 399. Seminar (1-5).
May be repeated if subject is different.
PESH 401. International Service Learning: Civic Engagement and Youth
Development (4). Provides philosophical and practical civic engagement opportunities at the international level through service-learning. Create and facilitate learning experiences with underserved youth in diverse settings. Permission by instructor. May be repeated up to 8 credits. Course will be offered every year (Summer). Upon successful completion of this course, the student will be able to:
Analyze underlying youth development through service learning
Identify specific needs of international groups and integrate this knowledge into their service learning experiences
Demonstrate clear communication skills and techniques facilitating their learning experience for their youth populations.
Incorporate and apply principles of positive youth development through service learning
Synthesize the aspects of their service learning experience

## PESH 410. Health and

Physical Education for
Elementary Classroom
Teachers (4). This course provides integration of strategies and activities for incorporating physical education and health into the elementary school setting. Concepts and skills will be
introduced for promoting a safe and healthy lifestyle. Course will be offered every year (Fall, Winter, Spring, and Summer).
Upon successful completion of this course, the student will be able to:
Examine and analyze stages of motor development in children moving.
Demonstrate and apply instructional cues, prompts, physical activities and feedback to facilitate the development of basic motor skills, rhythms, and fitness within the elementary classroom.
Identify and explain proper risk strategies, safety precautions, supervision, and legal issues relevant to children involved in different settings (i.e., recess, physical activity breaks, gymnasium, playground, field). Identify and explain state and health department safety procedures and creates a classroom environment plan which enhances the physical and emotional health of children in the elementary classroom.
Demonstrate basic awareness of sensory needs, appropriate integration, and modifications as needed in basic motor skills and physical fitness. Demonstrate an understanding of cultural competence in a comprehensive health education program. Demonstrate a basic understanding of the Washington Health and Physical Education state learning standards. Demonstrate general knowledge of the prevention and management of common illnesses, diseases, and personal safety. Demonstrate ability to access resources for adapting curriculum to individual student needs in health and physical education.

## PESH 431. Principles of

 Sexual Health Education (3). Principles and content for sex education in school andcommunity settings. Formerly HED 431, students may not receive credit for both. Prerequisite: by permission . Upon successful completion of this course, the student will be able to:
Describe the roles of familial and societal factors on human sexuality and reproduction. Identify and discuss the importance of medically accurate, fact-based sexuality education.
Identify the importance of human sexuality within the broader context of health. Identify and discuss HIV/AIDS and other sexually transmitted diseases.
Describe the anatomy and physiology of the male and female reproductive systems. Demonstrate best practices for teaching exemplary sexual health education.
Integrate the national sexuality education standards into health lesson \& unit plans.
Employ a 3-lesson, pre-
prepared sexuality health education curricula to $\mathrm{K}-12$ students.
PESH 437. Practicum 2 (3).
Physical Education teaching practicum. Prerequisites: PESH 280, PESH 336, and current WSP/FBI fingerprint clearance

Upon successful completion of this course, the student will be able to:
Create and administer their own rules, protocols, and positive learning environments. Create lesson plans and block plans and link them together to provide units of instruction of at least four weeks.
Teach and manage larger
groups of children in an actual physical education setting. Communicate and interact with other teachers, supervisors, and administration staff in a positive respectful manner throughout the program. Write a final teaching reflection paper based on their teaching experiences throughout the quarter.

Keep a reflective journal of their teaching and learning experience throughout the quarter.
PESH 438. Practicum 3 (3).
Physical education teaching practicum. Prerequisites: PESH
280, PESH 336, and PESH 437.

Upon successful completion of this course, the student will be able to:
Identify, develop, and implement instructional goals Select and implement instructional strategies based on developmental levels and different learning styles. Apply the disciplinary and pedagogical knowledge you have learned in the physical education major to develop and implement safe learning environments and experiences Select and implement teaching resources and curriculum materials based on their comprehensiveness, accuracy, usefulness, and safety. Develop short and long-term plans that are linked to learner needs and performance, instructional and program goals, and adapt them to ensure learner progress, motivation, and safety.
Reflect upon and revise practice based observation of learners, self-assessment, and problem-solving strategies. Demonstrate the use of formal and informal assessment techniques to assess learner performance, provide feedback, and communicate learner progress.

## PESH 439. Practicum 4 (1).

This course is designed to provide physical education and school health majors the knowledge and skill needed to create and teach dynamic, school health education lessons and unit plans within the K-12 setting. Prerequisites: PESH 280 and current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to:

Integrate national and state health education standards into health lesson \& unit plans. Create \& deliver effective health unit plans utilizing active learning teaching strategies related to various topics found in the scope and sequence of comprehensive school health education. Reflect upon and revise practice based upon observation of learners, selfassessment, and problem solving strategies. Implement and utilize research-based teaching models into lesson and unit plans.
Demonstrate the ability to create and implement visual aids and technology- related tools into school-based health education unit plans
Implement values assessment strategies into lesson and unit plans.
PESH 444. Professionalism in the Schools (2). This course provides an opportunity for the learner to assess and to finetune student teaching and job readiness as excellent educators. To be taken one or two quarters before student teaching. Prerequisite: this class requires admission to either the physical education or school health education major. Upon successful completion of this course, the student will be able to:
Produce a professional resume and letter of application that has excellent design and content.
Demonstrate excellent job interview skills. Demonstrate job search knowledge and skills. Demonstrate job readiness and student teaching readiness.

## PESH 445. Curriculum

 Development and Assessment in Physical Education (3)Examination of specific pedagogical principles and their impact on the teaching of human movement.
Prerequisites: PESH 341,
PESH 342, and PESH 343.

Upon successful completion of this course, the student will be able to:
Create interdisciplinary
learning experiences that allow learners to integrate knowledge and skills from multiple subject areas.
Employ concepts, assumptions, and debates central to the process of inquiry in the study of physical activity. Assess individual and group performance in order to design safe instruction that meets learner development al needs in the physical, cognitive, social, and emotional domains. Describe and implement strategies for building a community of learners as it relates to the overall health of $\mathrm{k}-12$ students and their schools. Use a variety of formal and informal assessment techniques to assess learner performance, provide feedback, and communicate learner progress. Use and interpret performance data to inform instructional decisions.
Select and use developmentally appropriate assessment strategies and instruments congruent with physical activity learning goals. Use strategies to help learners become self- motivated in their learning.

## PESH 447. Inclusive

 Strategies and Activities for Diverse Learners (3). This course will provide inclusive strategies and activities for diverse learners in physical education and school health. Upon successful completion of this course, the student will be able to:Demonstrate how to use developmentally appropriate adaptations and modifications that will enable success of learners with disabilities, impairments, and disorders (i.e., physical, intellectual, emotional/behavior, healthrelated disorders, social interaction disorders) for an inclusive physical education class.

Identify and describe federal and state legislation and current issues pertaining to children with disabilities and specifically to their participation in physical education, physical activity/fitness, and sport. Identify and describe the planning process for creating and implementing an Individualized Education Program (IEP) for a child with a disability who is included in regular physical education. Demonstrate how to make appropriate instructional accommodations for children who have a difficult time understanding directions, strategies, and rules of various sports, games, and physical activities.
Identify and analyze various assessment procedures and standardized assessments that can facilitate the inclusion of students with disabilities into regular physical education.
Demonstrate the understanding of age and developmentally appropriate practices and identify strategies that will help diverse learners become selfmotivated in their participation in physical education, physical activity/fitness, and sport.
PESH 456. Facilitating and Leading Adventure Activities in the Schools (2). Identify critical components of selected outdoor pursuits and circus arts activities. Prerequisites: PESH 280, PESH 341, PESH 342, PESH 343, PESH 350, and PESH 356 or instructor permission for students pursuing the physical activity and recreational programming minor.
Upon successful completion of this course, the student will be able to:
Create an instructional digital resource using the Dartfish software.
Perform a routine of circus arts on video.
Collect a $\log$ documenting every practice time relating to the performance components of the skills and/or activities.

Keep a journal with reflection on each of the activities taught in class. Students will be encouraged to include photographs in the journal. Create a community resource notebook to use as a teaching guide.
PESH 458. Diagnosis and Analysis of Human
Movement (3). Designed to
teach the student applied principles of human movement diagnosis including basic motor control, motor learning sport movements, and applied biomechanical principles. Upon successful completion of this course, the student will be able to:
Identify the qualities inherent in the interdisciplinary nature of qualitative movement diagnosis (QMD)
Differentiate the 6 differing models of QMD
Identify the differing roles of the senses and perception in QMD
Analyze and proscribe intervention strategies to improve performance based on current biomechanical theory and practice, motor learning research and trends Identify and apply the techniques of a qualitative movement diagnosis to self and peer movements based on current biomechanical and motor learning research Observe movement patterns of self (video) and peers (live) during an execution of a sport skill. Apply the concepts of systematic biomechanical observational strategies
PESH 496. Individual Study
(1-6). May be repeated if subject is different.
PESH 497. Honors (1-12).
Prerequisite: admission to department honors program.
PESH 498. Special Topics (1-
6). May be repeated if subject is different.
PESH 499. Seminar (1-5).
May be repeated if subject is different.
PETS 110. Basketball (1).
Course may be repeated up to
12 times for a maximum of 12
credits starting Spring 2016.
Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Identify the proper rules of play
Practice and physically show knowledge of basketball offensive and defensive play Demonstrate basic competence in footwork, passing, dribbling and shooting
PETS 113. Soccer (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate a knowledge of the physical skills of soccer. Actively participate in play. Identify offensive and defensive play strategies. Incorporate soccer rules in their cognitive understanding of the game.
PETS 114. Softball (Slow
Pitch) (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physical skills of softball. Actively participate in play. Identify offensive and defensive play strategies. Incorporate softball rules in their cognitive understanding of the game.
PETS 116. Volleyball (1). Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016.
Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the physical skills of volleyball. Actively participate in skill drills and play.

Identify and practice volleyball play using the principle of team concept.
Incorporate volleyball rules to their cognitive understanding of the game.
PETS 120. Table Tennis (1).
Table tennis will teach skills used during pair and partner play that will increase the players ability to play faster with more accuracy. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate forehand and backhand pushes.
Demonstrate forehand and backhand over spin serves. Demonstrate forehand and backhand under spin serves.
Demonstrate forehand and backhand loops.
Show personal style and tactics in single and paired play.
PETS 122. Touch Rugby (1). Touch rugby is a non-contact introduction course that will provide students with the basic skills essential to achieving success as a team player. Course may be repeated up to 12 times for a maximum of 12 credits starting Spring 2016. Past repetitions will remain as coded.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to spin pass the ball backwards.
Develop more skillful hand agility during ball handling techniques.
Identify basic terminology and rules used in touch rugby.
Demonstrate proper kicking technique with accuracy.
PETS 198. Special Topics (1).
PETS 210. Officiating in Basketball and Volleyball (2).
This course explores the officiating components of basketball and volleyball at the middle school, high school and collegiate levels. Certification of middle and high school
basketball and volleyball will be acquired at the conclusion of the course.
Upon successful completion of this course, the student will be able to:
Identify the rules of the game by completing the Washington Official Association (WOA) exam
Analyze and differentiate hand mechanics of basketball Analyze and differentiate hand mechanics of volleyball Recognize the proper codes of conduct and hand mechanics of basketball in real-game situations
Recognize the proper codes of conduct and hand mechanics of volleyball in real-game situations
Demonstrate professionalism by attending at least two WOA meetings
PETS 211. Umpiring in Baseball and Softball (2).
This course explores the umpiring components of baseball and softball at the middle school, high school and collegiate levels. Certification of middle and high school baseball and softball will be acquired at the conclusion of the course.
Upon successful completion of this course, the student will be able to:
Identify the rules of the game by completing the Washington Official Association (WOA) exam.
Analyze and differentiate hand mechanics of baseball. Analyze and differentiate hand mechanics of softball.
Recognize the proper codes of conduct and hand mechanics of baseball in real-game situations.
Recognize the proper codes of conduct and hand mechanics of softball in real-game situations. Demonstrate professionalism by attending at least two WOA meetings.
PETS 212. Officiating in Football and Soccer (2). This course explores the officiating components of football and soccer at the middle school,
high school and collegiate levels. Certification of middle and high school football and soccer will be acquired at the conclusion of this course and with passing the WOA examination.
Upon successful completion of this course, the student will be able to:
Identify the rules of the game by completing the Washington Official Association (WOA) exam.
Analyze and differentiate hand mechanics of football.
Analyze and differentiate hand mechanics of soccer.
Recognize the proper codes of conduct and hand mechanics of football in real-game situations.
Recognize the proper codes of conduct and hand mechanics of soccer in real-game situations. Demonstrate professionalism by attending at least two WOA meetings.
PETS 298. Special Topics (1-
6). May be repeated if subject is different.
PETS 299. Seminar (1-5).
May be repeated if subject is different.
PETS 396. Individual Study (1-6). May be repeated if subject is different.
PETS 397. Honors (1-12).
Prerequisite: admission to department honors program.
PETS 398. Special Topics (1-
6). May be repeated if subject is different.
PETS 399. Seminar (1-5).
May be repeated if subject is different.
PETS 496. Individual Study
(1-6). May be repeated if subject is different.
PETS 497. Honors (1-12).
Prerequisite: admission to department honors program.
PETS 498. Special Topics (1-
6). May be repeated if subject is different.
PETS 499. Seminar (1-5).
May be repeated if subject is different.
PEVM 110. Baseball (1). Two
or three hours activity per day
plus all regularly scheduled
meetings and game sessions. May be repeated for credit. PEVM 111. Basketball (1).
Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.

## PEVM 112. Cross Country

(1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVM 113. Football (1). May be repeated for credit. Two or three hours activity per day plus all regularly scheduled meetings and game sessions.
PEVM 117. Track and Field
(1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVM 118. Rugby (1). Two or three hours activity plus all regularly scheduled meetings and game sessions. May be repeated up to 15 credits. Upon successful completion of this course, the student will be able to:
Demonstrate mastery of the basic rugby skills necessary to successfully participate in practice and matches at the varsity level
Describe the basic rules and strategies needed to effectively participate in rugby matches at the varsity level Demonstrate appropriate sportsmanship/character behaviors during practices and games

## PEVM 298. Special Topics

(1-6). May be repeated if subject is different.
PEVM 299. Seminar (1-5).
May be repeated if subject is different.

## PEVM 396. Individual Study

(1-6). May be repeated if subject is different.
PEVM 397. Honors (1-12).
Prerequisite: admission to department honors program.
PEVM 398. Special Topics
(1-6). May be repeated if subject is different.

PEVM 399. Seminar (1-5).
May be repeated if subject is different.
PEVM 496. Individual Study
(1-6). May be repeated if subject is different.
PEVM 497. Honors (1-12).
Prerequisite: admission to department honors program.
PEVM 498. Special Topics
(1-6). May be repeated if subject is different.
PEVM 499. Seminar (1-5).
May be repeated if subject is different.
PEVW 110. Basketball (1).
Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 111. Cross Country
(1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 116. Track and Field
(1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 117. Volleyball (1).
Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 118. Soccer (1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit. PEVW 119. Softball (1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit. PEVW 120. Cheerleading (1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 121. Rugby (1). Two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated up to 15 credits.

Upon successful completion of this course, the student will be able to:
Demonstrate mastery of the basic rugby skills necessary to successfully participate in practice and matches at the varsity level
Describe the basic rules and strategies needed to effectively participate in rugby matches at the varsity level
Demonstrate appropriate
sportsmanship/character
behaviors during practices and games
PEVW 298. Special Topics (1-6). May be repeated if subject is different.
PEVW 299. Seminar (1-5).
May be repeated if subject is different.
PEVW 396. Individual Study (1-6). May be repeated if subject is different.
PEVW 397. Honors (1-12). Prerequisite: admission to department honors program. PEVW 398. Special Topics (1-6). May be repeated if subject is different.
PEVW 399. Seminar (1-5). May be repeated if subject is different.
PEVW 496. Individual Study (1-6). May be repeated if subject is different.
PEVW 497. Honors (1-12).
Prerequisite: admission to department honors program. PEVW 498. Special Topics (1-6). May be repeated if subject is different.
PEVW 499. Seminar (1-5).
May be repeated if subject is different.
PFP 298. Special Topics (1-
6). May be repeated if subject is different.
PFP 299. Seminar (1-5). May be repeated if subject is different.
PFP 310. Introduction to the Financial Planning
Profession (5). Introduces the processes appropriate for entry into the personal financial planning (PFP) profession. Provides an overview of the skills and knowledge sets required to be a PFP professional including an
outline of business models and practice management issues within the industry. Course will be offered every year (Fall and Spring). Prerequisite: ECON 130 or MATH 130 or BUS 221 or MATH 153 with a C- or higher.
Upon successful completion of this course, the student will be able to:
Explain the Fitness Standards
for Professional Financial
Planner Candidates and
Registrants
Explain the Code of Ethics and Professional Responsibility for CFP Professionals
Describe the Prqactice
Standards employed during the
financial planning process
Discuss the fiduciary standard
and its importance to financial planning
Diagram the personal financia planning process
Prepare statements of financial positions and cash flows Evaluate financial statements using ratios and growth rates. Analyze cash inflows and outflows related to a current financial needs and long-term financial goals
PFP 386. Information Technologies for Financial Planning (4). An overview of various financial planning software packages used in a modern financial planning firm. Students will study in a self-motivated environment to become proficient in the requisite software packages. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: a grade of C or higher in PFP 310 and BUS
102 or approved substitute and admission to a College of Business major.
Upon successful completion of this course, the student will be able to:
Describe the types of information and decision support systems used in the personal financial planning profession.

Explain the purpose of each of the major software categories to support financial planning activities.
Manage a hypothetical individual investment portfolio.
Analyze alternative
investments that may be used
to recommend to a prospective customer base on their assets and needs.
Propose how an individual's current assets may be invested to achieve stated retirement goals.
Demonstrate how an industryspecific customer relationship management system can be used to pursue stated performance goals.
PFP 396. Individual Study
(1-6). May be repeated if subject is different.
PFP 397. Honors (1-12).
Prerequisite: admission to department honors program.
PFP 398. Special Topics (1-
6). May be repeated if subject is different.
PFP 399. Seminar (1-5). May
be repeated if subject is
different.
PFP 440. Estate Planning (5).
Applies gift, estate, and generation skipping transfer taxation rules to personal financial planning scenarios. Studies financial regulations and taxation policy. Course will not have an established scheduling pattern.
Prerequisites: A grade of C or higher in PFP 310 and admission to a College of Business major OR (a grade of C or higher in PFP 310 and declaration of a Personal Financial Planning Certificate). Upon successful completion of this course, the student will be able to:
Compare and contrast the most common types of tilting property
Describe the probate process, its advantages, disadvantages, and costs.
Explain the alternative methods of transferring property at death

Propose the most appropriate property transfer mechanism for a client's situation Diagram the components and relationships among estate planning documents used to facilitate the transfer of one's assets.
Describe the roles of the parties used in estate planning including executor, trustee, power of attorney, beneficiary(ies), heirs, and guardians
Select the appropriate estate planning tools to meet a specific case client's coals and objectives
Prepare a cash flow plan for maintaining a client's estate from date of death to final distribution including payment of tax liabilities.
Compare the application of the
different types of trusts including revocable, irrevocable, living, and testamentary trusts Compare and contrast the components of charitable and non-charitable trusts Diagnose the income tax consequences of a cast trust including deductions, exemptions, credits, tax rates, and penalties for non-
compliance
Evaluate the income tax implications of trust income and distributions to beneficiaries Distinguish the relationship between the marital deduction and the qualified interest trust Choose the appropriate business transfer techniques based on specific scenarios Compare the forms of postmortem financial planning. Assess the impact of divorce and/or remarriage on an estate plan.

## PFP 450. Insurance and Risk

Management (5). Examines
risk management and insurance planning for individual clients as well as employers of small corporations. Teaches the development of risk management and insurance plans with economic and behavioral theory. Course will
not have an established scheduling pattern. Prerequisites: A grade of C or higher in PFP 310 and admission to a College of Business major OR (a grade of C or higher in PFP 310 and declaration of a Personal Financial Planning Certificate). Upon successful completion of this course, the student will be able to:
Explain the risk management process
Compare and contrast the primary risk management techniques available to clients Explain how insurers use risk pooling to pay for losses incurred by policyholders Distinguish among the factors
that affect policyholder premiums
Differentiate between group and individual health insurance alternatives, including fee for service and managed care plans.
Describe alternatives for acquiring health coverage including COBRA and Medicaid
Distinguish between short-term and long-term disability plans. Formulate a plan for meeting individual disability income needs
Compute the tax implications of paying for and receiving disability benefits Propose a long-term care insurance plan based on needs, financial resources, policy coverage, and cost
Compare and contrast annuities (fixed and variable) with other investment alternatives. Assess the most appropriate life insurance coverage to match a client's circumstances Estimate a client's insurance needs using alternative approaches
Prepare an insurance needs analysis for a case client Recommend appropriate insurance products, given a case client's circumstances Diagram the components of property and casualty insurance

Differentiate among the basic homeowners insurance (HO) forms and features
Evaluate the components of automobile insurance for potential property damage or liability exposures.

## PFP 460. Retirement

Planning (5). Examines the topics of retirement planning and retirement plans from both employer and individual client settings. Uses a case study approach to apply and integrate the material. Emphasizes the evaluation of financial alternatives. Course will not have an established scheduling pattern. Prerequisites: A grade of C or higher in PFP 310 and admission to a College of Business major OR (a grade of C or higher in PFP 310 and declaration of a Personal Financial Planning Certificate). Upon successful completion of this course, the student will be able to:
Describe common assumptions used in analyzing retirement Design a savings plan to maximize the probability of achieving a case client's goals and mitigating longevity risk
Calculate the retirement
funding and income distribution plans under varied scenarios
Explain work-to-retirement transitions and phased retirement
Describe the purpose and practices surrounding the Social Security System Calculate the optimal date to begin receiving Social Security retirement benefits and the impact of the earnings test for a case client
Describe the Medicare program, including the payroll taxes and eligibility structure Distinguish between the four parts of Medicare coverage related to benefits, out-ofpocket costs and alternative insurance options to cover the gaps in coverage.
Propose the proper Medicare coverage and any supplemental coverage based on client circumstances

Distinguish between qualified, government, non-qualified, and private tax-advantaged retirement plans Compare the various types of defined benefit, defined contribution and individual retirement accounts Differentiate between the various types of Individual Retirement Arrangements (IRAs)
Propose an appropriate IRA for a client's needs. Identify the factors that will affect the selection of a retirement plan for a business Choose a qualified or nonqualified retirement plan given a business owner's goals and objectives.
Discuss the rules and penalties regarding retirement plan distributions
Evaluate investments for both
funding and retirement distribution purposes, considering the time horizon and risk tolerance of plan owners and beneficiaries. Prepare an investment portfolio that minimizes retirement income risk
Describe how life insurance products may affect retirement plan decisions
Outline the factors a business owner should consider when creating a succession plan.

## PFP 475. Financial Planning

Investments (5). Financial
resource investment theory and financial instruments most relevant to financial planning. Focus on understanding the differences in return distribution characteristics of available financial instruments and use of financial instruments within a household portfolio. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisites: A grade of C or higher in PFP 310 and admission to a College of Business major. Upon successful completion of this course, the student will be able to:

Describe and compare the investment characteristics of asset classes
Explain the appropriate use for each asset class and investment vehicle based investment goals. Describe tax implications of holding and disposing of various security types or asset classes
Identify, measure, and differentiate between types of investments risks. Explain the impact of lowprobability economic events on portfolio design.
Estimate the expected risk and return using the Capital Asset Pricing Model for securities and portfolios Calculate modern portfolio theory statistics in the assessment of securities and portfolios.
Explain the use of return distributions in portfolio structuring
Apply advanced analytic techniques to portfolio analysis.
Identify, measure, and interpret various approaches to determining investment returns.
Calculate and interpret risk-
adjusted performance measures
Construct a portfolio
associated with a specific investment goal.
Explain the role of portfolio rebalancing.
Recommend an asset allocation strategy consistent with a specified risk tolerance Value a bond using discounted cash flow and explain how interest rates affect bond values.
Estimate the value of a stock using discounted cash flow, the CAPM, and price multiples.
Differentiate between fundamental and technical analysis.
Develop alternative strategies to meet investment objectives, time horizons, and risk tolerances.
Select an appropriate benchmark for assessing the value of portfolio management services.

Develop an appropriate Investment Policy Statement (IPS) for a client.
Apply duration and convexity in constructing a fixed income portfolio.
Construct a tax-efficient
diversified portfolio based on a
stated goal, risk preference and time horizon.
Calculate and communicate a client's portfolio performance using different risk and return measures
Explain the role of alternative investment strategies such as buy-and-hold, immunization, core and satellite, passive (indexed) and active management techniques such as tactical allocation, market timing, and sector rotation Evaluate how options and futures support investment risk management purposes.
Define and describe what qualifies as an alternative investment.
Explain asset class and describe the basic differences between the traditional asset classes and alternative asset classes
Explain the primary rationale and uses for alternative asset classes
Explain the potential advantages and disadvantages of utilizing alternative investment strategies Explain how the incorporation of alternatives asset classes can affect both absolute and riskadjusted portfolio returns
PFP 480. Financial Planning
Capstone (5). Develops the concept of a comprehensive plan. Reviews of each of the major aspects of financial planning in the context of a comprehensive case. Students will synthesize all information and create a comprehensive financial plan for a client. Analyzes the financial planning profession and the various types of financial planning models. Prerequisites: (FIN 370 and PFP 310 and ACCT 303 with a minimum grade of C) AND FIN 475 and PFP 440 and PFP 450 and PFP

460 and admission to a College of Business major.
Upon successful completion of this course, the student will be able to:
Demonstrate a comprehensive understanding of the content found within the Financial Planning curriculum and effectively apply and integrate this information in the formulation of a financial plan Effectively communicate the financial plan, both orally and in writing, including information based on research, peer, colleague or simulated client interaction and/or results emanating from synthesis of material
Collect all necessary and relevant qualitative and quantitative information required to develop a financial plan
Analyze personal financial situations, evaluating clients' objectives, needs, and values to develop an appropriate strategy within the financial plan Demonstrate logic and reasoning to identify the strengths and weaknesses of various approaches to a specific problem Evaluate the impact of economic, political, and regulatory issues with regard to the financial plan Apply the CFP Board Financial Planning Practice Standards to the financial planning process
PFP 490. Personal Financial
Planning Internship (1-12).
An individualized, contracted field experience with business, industry, government, or social service agencies focusing on personal financial planning related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Permission of department. May be repeated up to 20 credits. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa.

Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Substantive discipline-based outcomes developed by individual students in consult with faculty advisor
PFP 493. Personal Financial
Planning Boot Camp (1-6).
Supervised field experience
seminar focused on personal financial planning related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. May be repeated up to 6 credits. Grade will either be S or U. Permission by instructor. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp. Exhibit professional behavior and appropriate business skills in industry setting.
Establish a professional network within the industry professionals. llustrate an awareness of the organization(s) participating in the boot camp.
PFP 496. Individual Study
(1-6). May be repeated if subject is different.
PFP 497. Honors (1-12).
Prerequisite: admission to department honors program.
PFP 498. Special Topics (1-
6). May be repeated if subject is different.
PFP 499. Seminar (1-5). May be repeated if subject is different.
PHIL 101. Philosophical
Inquiry (5). Introduces students to the basic concepts, questions, and methods of philosophical inquiry. Topics may include free will and responsibility, knowledge and skepticism, the nature of the
divine, moral reasoning, and human rights and social justice. Course will be offered every year (Fall, Winter, Spring, Summer). AH-Philosophies and Culture World (W). Upon successful completion of this course, the student will be able to:
Examine the basic methods of the philosophical tradition: critical thinking and argumentative writing Analyze diverse perspectives on key issues in philosophy, such as morality, free will and responsibility, knowledge, and justice
Evaluate the strength of the arguments that support those perspectives
Examine their own conceptual and normative presuppositions Defend their own reasoned positions on these issues, in argumentative writing and in class discussion
PHIL 102. Knowledge, Mind and Reality (5). An introduction to philosophy, focusing on the core fields of epistemology, metaphysics, and philosophy of mind. Topics may include belief, rationality, skepticism, the nature of mind, free will, personal identify, and time. Upon successful completion of this course, the student will be able to:
Show awareness of assumptions about fundamental topics such as free will, or personal identity, or the relation between mind and brain; and of how those assumptions shape one's perspective, via one's language, perceptions, and values Demonstrate an understanding of, and an ability to express, some representative theories on these fundamental topics. Show awareness of how different beliefs or theories about these fundamental topics can influence one's perspective on and behavior in the world, concerning both oneself and other people.
Identify the philosophical questions that authors address,
and demonstrate an understanding of how the authors answer those questions. Identify how those answers relate to one's own views, or can help to clarify those views. Explain and justify one's own position on these fundamental topics.

## PHIL 103. What Is

Enlightenment? (5). An introduction to the study of philosophy through the issue of how we should live, with a particular focus on how we define social justice. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Examine diverse definitions of the concept of enlightenment from multiple global traditions Examine what the concept of social justice is, especially around issues of gender and race
Analyze why social justice and other forms of enlightenment are difficult to achieve Evaluate the arguments for these positions Examine how these diverse perspectives challenge their own conceptual and normative presuppositions on these issues Identify and justify their own positions on these issues, in class discussion and in argumentative writing
PHIL 104. Moral Controversies (5). An introduction to moral reasoning through the study of current ethical problems. Topics may include abortion, capital punishment, consumerism, immigration, sexual ethics, killing in war, and/or torture. AH-Philosophies and Culture World (W). Formerly PHIL 210, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Identify the philosophical questions addressed in class and describe how major
positions on these questions have changed over time while paying specific attention to issues of gender, sexuality, race, ethnicity, and class. Identify how a liberal political system introduces specific moral problems that confront Western-style democracies and their citizens.
Distinguish major positions on pressing moral issues and describe arguments offered for or against these positions. Explain the arguments presented in course readings, compare those arguments to one's own lived experience. Evaluate arguments and identify the strengths and weaknesses of those arguments.
Use philosophical ethics to interrogate, analyze, and evaluate one's own positions on major ethical issues.
PHIL 105. The Meaning of Life (5). An exploration of the meaning of life from diverse philosophical traditions. Topics may include hedonism versus pessimism, theism, scientific humanism, and existentialism. Formerly PHIL 115, students may not receive credit for both. Course will not have an established scheduling pattern (Spring).
Upon successful completion of this course, the student will be able to:
Recognize and evaluate arguments regarding the meaning of life in a variety of philosophical approaches, from Eastern and Western philosophical traditions, including hedonism, pessimism, thesis, scientific humanism, and existentialism. Compare the authors' philosophical assumptions to your own in order to identify shared and differing personal and cultural assumptions regarding the meaning of life. Identify how having a sense of purpose affects personal psychological and physical well-being, and how one's psychological and physical
well-being affects our sense of purpose.
Identify social policies that impact our personal sense of purpose and develop concrete policy proposals to improve societal well-being.
PHIL 106. Asian Philosophy
(5). Examination of selected classical and/or contemporary issues and questions in Chinese, Japanese and Indian philosophy. AH-Philosophies and Culture World (W). Formerly PHIL 209, students may not receive credit for both. Course will not have an established scheduling pattern (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Articulate an understanding of the development of the major philosophic traditions of Asia within their contexts of origin. Demonstrate an in-depth knowledge of the primary tenets and symbolic systems of Asian philosophy as they relate to the health \& well-being of yourself and the planet. Explain how sustainability relates to our lives and values from an Asian perspective. Explain how our actions impact issues of sustainability at individual, community, organizational and societal levels.
Demonstrate a recognition of the relationship between personal, social, professional, and economic well-being. Appraise key factors and strategies that propagate an individual's personal, social, and professional future wellbeing.
PHIL 107. Political Philosophy and Social Democracy (5). A critical exploration of major cultural trends in Western social democracies through the lens of historical and contemporary political philosophies. Topics covered include immigration, the distribution of wealth and income, and multicultural citizenship. Course will be
offered every year (Winter, Spring).
Upon successful completion of this course, the student will be able to:
Describe various philosophical theories of citizenship and the state.
Describe the historical events and cultural movements that influenced the development of contemporary western political thought.
Identify the ethical and metaphysical assumptions that underlie various philosophical theories of citizenship and the state.
Identify the influence of discussed philosophical systems on contemporary systems of government. Apply theories of citizenship and the state to contemporary political issues and evaluate contemporary systems of government in light of discussed theories of citizenship in the state. Create and describe a personal theory of the requirements of citizenship rooted in some of the discussed theories
PHIL 110. Beyond Belief? Exploring the Fringe and the Paranormal (5). The class will examine beliefs in fringe phenomena, such as ghosts, ESP, and alien abduction. Students will learn to consider evidence and how to recognize sources of bias in their own and others' beliefs. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Analyze reports of paranormal and fringe phenomena from an objective, scientific perspective; and in particular, use inference to the best explanation to evaluate such reports.
Identify and evaluate the evidence that a phenomenon did (or did not) occur, rather than demanding proof that it did (or did not) occur; and
explain why demanding proof is obstructive and unnecessary. Read texts about paranormal and fringe phenomena critically and rhetorically, and summarize them objectively, accurately, and ethically. Recognize when various cognitive biases and errors might be influencing someone's (including your own) thinking about a reported paranormal or fringe phenomenon.
Express ideas in clear and coherent academic prose, and cite and document sources precisely and effectively.

## PHIL 150. Critical Thinking

(5). This course will focus on informal logic: understanding and evaluating arguments in ordinary language. Students will learn to read, write, and think critically. Basic Skills 5 Reasoning.
Upon successful completion of this course, the student will be able to:
Accurately summarize an argument contained in a prose passage, identifying its thesis, premises, and assumptions. State the distinction between the truth of an argument's premises and the validity and strength of its reasoning; and display awareness of this distinction in one's writing. Identify whether a given argument is deductive or inductive, and accordingly evaluate it for either validity or soundness or for strength and cogency; and recognize whether it commits any common argumentative fallacies.
Identify the logical form (propositional or categorical) of English statements and arguments; be able to exhibit that form by symbolization; and be able to use that form to determine the validity of arguments.
Display, in one's writing, an awareness of one's assumptions, and a willingness to question them; and hence be able to engage seriously and respectfully with others who
disagree with those assumptions.
Take a reasoned position on a complex question while acknowledging that one's position might be incorrect but still avoid collapse into a default relativism on which
"it's all a matter of opinion".
PHIL 151. Arguments about Life and Death (5). This course will cultivate critical thinking skills in examining arguments about life and death: defining what death is, whether death is something to be feared, and the moral and legal issues around physicianassisted suicide. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Accurately analyze arguments contained in prose passages concerning life and death, identifying their premises and conclusions
Distinguish between the truth of an argument's premises and the validity or strength of its reasoning, and evaluate that strength or validity Craft a strong argument for a position on a complex question concerning life and death Identify and synthesize highquality sources and use them effectively in support of an argument, and cite and document sources according to MLA guidelines Craft prose that conforms to academic expectations regarding rhetorical effectiveness: clarity, coherence, unity, style, and meaning
Identify core concepts and positions in debates around life and death, including: whether death is to be feared, how to define death, and whether assisted suicide is morally or constitutionally justified.
PHIL 152. Arguments about Healthcare (5). This course will cultivate critical thinking skills through the examination of arguments about healthcare, including whether there is a
right to healthcare, the social determinants of health, and public policies designed to provide healthcare. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Accurately analyze arguments contained in prose writing on healthcare issues, especially regarding the supposed right to healthcare, identifying their premises and conclusions. Distinguish between the truth of an argument's premises and the validity or strength of its reasoning, and evaluate that strength or validity. Craft a strong argument (one which is adequately supported by evidence) for a position regarding the government's provision of healthcare for its citizens.
Identify and synthesize highquality sources and use them effectively in support of an argument, and cite and document those sources using MLA guidelines. Craft prose that conforms to academic expectations regarding rhetorical effectiveness: clarity, coherence, unity, style, and meaning.
Appraise arguments for and against single-payer healthcare system, the Affordable Care Act, and a libertarian approach. Identify the major contributors to health outcomes, including the social and psychological determinants of health.
PHIL 153. Arguments about Social Issues (5). This course will cultivate critical thinking skills through the examination of arguments about pressing social issues. Examples may include (but are not limited to) freedom of speech, environmental preservation, identity politics, and firearm laws. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:

Accurately analyze arguments contained in prose writing on social issues, identifying their premises and conclusions. Distinguish between the truth of an argument's premises and the validity or strength of its reasoning, and evaluate that strength or validity. Craft a strong argument (one which is adequately supported by evidence) for a position on a complex question concerning a social issue.
Identify and synthesize highquality sources and use them effectively in support of an argument, and cite and document those sources using MLA guidelines. Craft prose that conforms to academic expectations regarding clarity, coherence, unity, style, and meaning. Apply research and theory to the problems posed by social issues such as (but not limited
to) freedom of speech, environmental preservation, identity politics, and firearm laws.
PHIL 201. Introduction to Logic (5). Formal principles, methods and techniques for analyzing, constructing, and evaluating arguments. Topics include validity, soundness, truth tables, Venn diagrams, syllogisms, and logical symbolism. Basic Skills 5 Reasoning.
PHIL 298. Special Topics (16).

PHIL 299. Seminar (1-5).
PHIL 302. Ethical Theory
(5). Offers an overview of the content and justification of historical approaches to ethical theory. Includes a critical assessment of those theories and a discussion of current approaches to ethical theory. Upon successful completion of this course, the student will be able to:
Explain and analyses the content of three major ethical theories: Kantianism, Utilitarianism, and Virtue Ethics.

Identify the foundational assumptions that each of these theories rests upon.
Apply the major ethical theories to issues in contemporary society. Articulate criticisms of the major ethical theories. Identify and explain contemporary movements in ethical theory (for example feminist ethics, contractualism, value theory, error theory, emotivism, etc.).
Explain how contemporary movements in ethical theory are a response to criticisms of both the content and assumptions of the major ethical theories.

## PHIL 304. Business Ethics

(5). Ethical problems that arise in contemporary business practices and the relevance of recent ethical theory to these problems.
PHIL 305. Philosophy of Religion (5). Fundamental assumptions and issues in religious activity and thought; types of religious philosophy. Upon successful completion of this course, the student will be able to:
Examine and critically evaluate major issues in religious philosophy (such as epistemology, nature of evil, interreligious dialogue, proofs of the divine, etc)
Critically assess philosophical positions taken by representative thinkers and traditions for their implications, plausibility and applicability to contemporary discussions on the philosophy of religion.
Research, formulate and defend an interpretation and critique of various philosophical perspectives on religion.
Develop analytical, reading and writing skills.
PHIL 306. Environmental Ethics (5). An examination of various positions on the human relationship with the natural environment, from ancient and contemporary, western and non-western, as well as
interdisciplinary perspectives. AH-Philosophies and Culture World (W). Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Identify basic philosophical positions on the human relationship with the natural environment.
Identify philosophical positions in relation to different cultural tradtions.
Critically evaluate various positions on the human relationship with the natural environment.
Develop students' own view on issues in environmental ethics.

## PHIL 307. Introduction to

Formal Logic (5). An
introduction to formal logic, focusing on propositional and predicate calculus. Logical operators, symbolization, truth functions, truth tables, natural deduction (including conditional and direct proofs), and quantifiers.
Upon successful completion of this course, the student will be able to: Symbolize English statements into formal logic, using the propositional and predicate calculus.
Classify and compare statements, and determine validity of arguments, by using the truth table method -- for both the propositional and predicate calculus.
Use the method of natural deduction to derive the conclusions of valid arguments, in both the propositional and predicate calculus.

## PHIL 308. Medical Ethics

(5). Explores ethical issues arising in a medical context, such as the allocation of scarce medical resources and health care, patient confidentiality , advance directives, human experimentation, and physician-assisted suicide. Upon successful completion of this course, the student will be able to:

Identify and explore connections between the theoretical principles and practical implications involved in a number of issues in medical ethics Identify how ethics, law, and social policy are related to one another
Demonstrate strong critical thinking skills and evaluate their own and others' moral positions
Discuss ethical issues openly, respectfully, and knowledgeably with those from different backgrounds and perspectives. Demonstrate the ability to investigate problems new to themselves, draw conclusions, and evaluate source materials utilized in these investigations
PHIL 309. Ethics through Film (Put on reserve 9/16/17)
(5). An examination of ethical theories and themes in film, including the ethics of filmmaking. Films will be selected from a wide range of possibilities, including foreign productions. Formerly PHIL 402, students may not receive credit for both. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.)
Upon successful completion of this course, the student will be able to:
Identify ethical themes in contemporary films from around the world and across a spectrum of diverse viewpoints, including those of different economic classes, gender, and ethnic / minority groups.
Apply literary criticism and theory to analyses of ethical dilemmas and contemporary ethical issues in film. Critically watch films and evaluate how their form and content work together to produce / construct meaning. Develop analytical reading and writing skills.
Assess, discuss, and write critically about film from a philosophical perspective. Identify and discriminate between a variety of ethical
theories (such as utilitarianism, ethical egoism, deontology, relativism, feminism, etc.) as they appear in film.
PHIL 314. American Wilderness Philosophy (5).
An exploration of the wilderness tradition in American philosophy. Topics include the value of wilderness areas, outdoor recreation, hunting, and fishing; back to the land movements; and current proposals to "rewild" built environments. Course will be offered on odd numbered years (Spring).
Upon successful completion of this course, the student will be able to:
Identify various themes and focuses in wilderness thinking (conservation, preservation, rewilding, etc).
Identify contemporary
environmental issues to which wilderness philosophy is particularly relevant.
Apply themes from wilderness philosophy and writings to contemporary environmental issues.
Evaluate the ability of wilderness philosophy to contribute to contemporary environmental issues. Distinguish wilderness philosophy from broader environmental movements.
PHIL 317. Philosophy of Technology (5). An examination of philosophical approaches to contemporary technologies. Topics may include robotics, digital games, virtual worlds, nanotechnology, human enhancement, and mobile technology. Course will be offered on even numbered years (Spring).
Upon successful completion of this course, the student will be able to:
Identify philosophical problems related to existing and emerging technologies. Explain major positions in the philosophy of technology.
Apply arguments in the philosophy of technology to
contemporary technology usage.
Discuss how changes in technology impact and alter human experience.
Evaluate one's own technology usage and the usage of others from a philosophical perspective.
PHIL 324. Philosophy and
Science Fiction (5). Covers issues in analytic philosophy via examination of science fiction works. Topics may include skepticism, free will, personal identity, artificial intelligence, machine ethics, transhumanism, genetic engineering and time travel. Upon successful completion of this course, the student will be able to:
Examine and critically analyze issues in contemporary philosophy that are raised in science fiction works (books, short stories, films, television). Recognize and describe the treatment of these philosophical issues as they appear in science-fiction works.
Critically assess a philosophical position for its implications and its plausibility.
Formulate and defend a position of one's own on these issues, with reference to the relevant positions described in the philosophical literature and the ideas displayed in science fiction works.
Display knowledge of the core concepts and methods of philosophy, and the ability to deploy those concepts and methods in reasoning.
PHIL 325. Women and Philosophy (5). An examination of what the history of philosophy has claimed about the significance of gender with particular attention to the characterization of women in those texts and the impact of this history on contemporary thought. PHIL 325 and WGSS 351 are equivalent courses; students may not receive credit for both. Course will be offered on even
numbered years. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Examine the dominant conceptions of gender in the history of philosophy Identify how these conceptions play out in contemporary gender articulations Examine contemporary feminist theory's challenges to these ideas, and the range of perspectives used in those challenges
Critically evaluate these theoretical assumptions, identifying both their strengths and limitations

## PHIL 345. Chinese

Philosophy (5). Selected philosophical topics in Chinese literature. May be repeated up to 10 credits. Formerly PHIL 445, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify the major schools of the Chinese philosophical tradition.
Explain the differences and commonalities of the various philosophical traditions of China.
Verbally and expositorally articulate an understanding of the philosophical traditions of China and their influences on the wider social milieu. Develop analytical, reading and writing skills.
Recognize and describe the full tradition of Chinese philosophy.
Recognize and identify the difficulties in defining Chinese philosophy and separating it from religious ideas and practices.

## PHIL 347. Philosophy of Law

(5). Examines theories regarding the origin and justification of legal systems, including natural law theory, legal positivism, and legal realism. Topics may include civil disobedience, religious freedom, affirmative action,
pornography, the insanity defense, and punishment. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the major theories regarding the philosophical basis of law, including natural law theory, legal positivism, and legal realism.
Demonstrate an understanding of the nature of law and its connection to morality. Demonstrate an understanding of the major theoretical justifications for statesponsored punishment, including retributivism and deterrence theories. Identify the theoretical issues involved in specific debates surrounding personal privacy and government authority.

## PHIL 348. Social and

Political Philosophy (5). An examination of the philosophical foundations of major modern social and political systems such as classical conservatism, liberalism, socialism, fascism, and anarchism.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of primary texts in social and political philosophy. Recognize the key components of political theories and their connection to moral and political principles. Evaluate political theories by appealing to moral theories, theories of human nature, and/ or historical events.
Compare and contrast political theories by considering both the principles supporting various theories and the content of those theories. Diagnose problems in various political theories by appealing to the principles which support that theory.
PHIL 352. Greek and Roman Philosophy (5). Overview of major thinkers and themes in ancient Greek and Roman philosophy. Figures/schools discussed may include the Pre-

Socratics, Plato, Aristotle, Stoicism, Epicureanism, Skepticism, Cicero, and/or Plotinus.
Upon successful completion of this course, the student will be able to:
Read primary texts from the time period, and explain the author's arguments and conclusions.
Compare the work of two authors and observe their points of agreement and disagreement.
Construct a reasoned criticism of an author's argument.
Write a coherent and cohesive
paper in which they engage respectfully but critically with the work of a primary author of the period.
Read primary texts from the time period, and explain the author's arguments and conclusions.
Compare the work of two authors and observe their points of agreement and disagreement.
PHIL 353. Early Modern
Philosophy (5). A study of some of the influential philosophies of the 17 th and 18th centuries: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume and Kant. Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Read primary texts from the time period, and explain the author's arguments and conclusions.
Compare the work of two authors and observe their points of agreement and disagreement.
Construct a reasoned criticism of an author's argument.
Write a coherent and cohesive paper in which they engage respectfully but critically with the work of a primary author of the period.
Read primary texts from the time period, and explain the author's arguments and conclusions.

Compare the work of two authors and observe their points of agreement and disagreement.
PHIL 354. Kant and Nineteenth-Century Philosophy (5). A study of European philosophers from the late 18th and 19th centuries. The course focuses on primary texts from such philosophers as Kant, Hegel, Marx, Kierkegaard, and Nietzsche.
Upon successful completion of this course, the student will be able to:
Read primary texts from the time period, and explain the author's arguments and conclusions.
Compare the work of two authors and observe their points of agreement and disagreement.
Construct a reasoned criticism of an author's argument. Write a coherent and cohesive paper in which they engage respectfully but critically with the work of a primary author of the period.

## PHIL 356. American

 Philosophies (On reserve as of $9 / 16 / 15$ ) (5). Examines the development of American philosophies from the Colonial period to the present, including African American, Native American, Latin American philosophies, American pragmatism, transcendentalism, American feminism, and others. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.Upon successful completion of this course, the student will be able to:
Identify the various schools of American Philosophy from the Colonial period to present, and their corresponding authors. Explain the central tenets of the major schools of American Philosophy and articulate their various differences and commonalities. Explain and Identify the development of the central tenets of various authors as either emerging out of or
arising in response to previous schools of American Philosophy.
Identify and verbally articulate the historical and cultural conflicts that informed some of the debates between the various schools of American Philosophy.
Critically assess and respond to the claims made by the various authors examined in class.
Analyze, compare, and critically evaluate the position of two central American philosophers.
Develop analytical reading and writing skills.
PHIL 357. Philosophy of
Race (5). This course will examine the philosophical significance of race: interrogating its reality and legitimacy as a category of identify, and the political and social implications of racial identify, both historically and in contemporary contexts. Upon successful completion of this course, the student will be able to:
Examine the way in which social identity is formed and maintained, and its pervasive influence on our lives. Analyze historical conceptions of race, and how these ideas and associated practices have influenced contemporary society.
Analyze philosophical positions on the reality and legitimacy of race, as a category of identity. Critically reflect on their own positions on these issues and those of others, both in writing and in discussion.
PHIL 358. Existentialism (5).
Kierkegaard, Nietzsche, Marcel, Heidegger, Jaspers, and Sartre.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of the major concepts of existentialism.
Trace the historical development of existentialism in philosophical and literary
texts, and compare differing
positions within this movement.
Reflect critically on their own positions on these issues and those of others, both in thesisbased writing and in discussion.
PHIL 359. Contemporary
European Philosophy (5). A historical and critical study of contemporary European philosophy, with particular emphasis on phenomenology (including Husserl, Heidegger, and Merleau-Ponty) and how these ideas and methods have influenced recent European thought. Formerly PHIL 459, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of the key concepts and
methodology of
phenomenology
Evaluate the arguments provided that support these concepts and claims Articulate and justify original interpretations of these issues Practice the process of brainstorming, drafting, and revising a thesis-based philosophy paper
PHIL 361. Theory of
Knowledge (5). A critical study of contemporary analytic epistemology. Topics may include belief, evidence, and perception; skepticism and justification; a priori knowledge; induction; knowledge of other minds; the ethics of belief; truth and relativism. Formerly PHIL 461 , students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Examine and critically analyze issues in contemporary epistemology. Critically assess a philosophical position for its implications and its plausibility.
Formulate and defend a position or 'one's own on these issues, with reference to the
relevant positions described in the philosophical literature. Display knowledge of the core concepts and methods of analytic epistemology, and the ability to deploy those concepts and methods in reasoning.
PHIL 364. Philosophy of Mind (5). A critical study of contemporary analytic philosophy of mind. Topics may include dualism, materialism, functionalism, consciousness, intentionality and representation, the computational theory of mind, artificial intelligence, and animal minds. Formerly PHIL 463, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Examine and critically analyze issues in contemporary philosophy of mind.
Critically assess a philosophical position for its implications and its plausibility.
Formulate and defend a position of one's own on these issues, with reference to the relevant positions described in the philosophical literature. Display knowledge of the core concepts and methods of analytic philosophy of mind, and the ability to deploy those concepts and methods in reasoning.
PHIL 378. Philosophy of Love (5). A study of various concepts of love as they occur in philosophy, literature, and other cultural expressions. The nature of romantic love, eros, agape, friendship, and fellow feeling will be discussed. AHPhilosophies and Culture World (W). Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Identify the various connotations of the word 'love' as expressed both diachronically and synchronically in various cultures as informed by various disciplines.

Delineate the various connotations of the concept of 'love' in the Classical World, while acknowledging that the multi-semantic potential of Greek 'love' both precedes and proceeds these Classical texts. Describe the nature of love in Ancient Egypt, Mesopotamia, India and China and compare these non-Western conceptions of love to those in the Classical World.
Describe the nature of love in both western and eastern religious traditions, again making comparison to the nature of love in the Classical and Ancient Worlds.
Describe the manner in which the various connotations of 'love' can be found in the cycles of human life. Describe how various films, works of art, music and autobiographical books depict the concept of love.
Report their philosophy of love to their classmates.
Demonstrate the skills of team work.
PHIL 380. Philosophy of
Science (5). A critical study of the aims, structure, and methodology of the sciences. Topics covered may include explanation, prediction, induction, theories, scientific realism, empiricism, laws, and confirmation. Formerly PHIL 480, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Examine and critically analyze issues in contemporary philosophy of science, and recognize their relevance to current and/or historical instances of the scientific enterprise.
Critically assess a
philosophical position for its implications and its plausibility, especially in relation to science as it is done by scientists.
Formulate and defend a
position of one's own on these issues, with reference to the
relevant positions described in the philosophical literature.
Display knowledge of the core concepts and methods of analytic philosophy of science, and the ability to deploy those concepts and methods in reasoning.
PHIL 396. Individual Study (1-6). May be repeated if subject is different.
PHIL 397. Honors (1-12).
Prerequisite: admission to department honors program.
PHIL 398. Special Topics (16).

PHIL 399. Seminar (1-5). May be repeated if subject is different.
PHIL 403. Philosophy of Art (5). Survey of ancient, modern, and contemporary philosophy of art, with an emphasis on primary texts and application to artwork. Examination of different ways to define art and its function: art as
representation, expression, and metaphor. Formerly, PHIL
303. Students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the major philosophies of art: representational theory, institutional theory, formalism, naturalism, expressivism, and phenomenology.
Identify the ways in which an artist's intention matters and does not matter in interpreting a work of art.
Demonstrate an understanding of the ways in which metaphor in art helps us epistemically to understand the world and other people more clearly.
Demonstrate the relationship between art and philosophic vocabulary.
Identify the ways that philosophy has influenced art and art has developed its own philosophies, especially in the Dada movement; as well as how artists have challenged philosophies of art.
PHIL 459. Phenomenology
(5). A historical and critical study of phenomenology as a
philosophic method. Leading phenomenologists such as
Husserl, Scheler, and MerleauPonty.
PHIL 465. Advanced Ethics
(5). Advanced topics reflecting current trends and problems within philosophical ethics. May be repeated up to a maximum of 10 credits. Upon successful completion of this course, the student will be able to:
Discuss and evaluate current research in philosophical ethics.
Explain the connections between general claims in ethical theory and specific issues in the field. Analyze and evaluate the reasoning and justification for (as opposed to merely the content of) various positions in ethical theory.
Develop and defend criticisms of positions held in contemporary philosophical ethics.
Explain how abstract positions within philosophical ethics connect to particular issues in society and apply those abstract positions to particular issues.
PHIL 485. Capstone Project (2). Culminating experience (research paper, internship or creative project) to synthesize and display understanding of knowledge gained in coursework as applied to academic, professional and personal plans for the future. Upon successful completion of this course, the student will be able to:
Synthesize the various approaches and ideas they have encountered in their previous coursework in the ethics minor. Display an understanding of those various approaches and ideas.
Apply what they have learned to their academic, professional and personal plans for the future.

## PHIL 488. Junior Seminar

(5). Intensive study of selected philosophical theories, movements, or figures. May be
repeated up to 10 credits under a different subtitle.
Prerequisite: student must be a philosophy major with junior or senior standing or have permission from the instructor. Upon successful completion of this course, the student will be able to:
Identify major concepts and issues on selected topics. Evaluate critically major concepts and theories covered in the course.
Approach selected issues from a pluralistic perspective.
Advance and support a thesis.
Read analytically and critically
relevant primary texts.
PHIL 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
PHIL 494. Undergraduate Thesis Preparation (2). Preparation for writing undergraduate thesis. Grade will be either S or U . Prerequisites: advanced standing (junior standing or above) and permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate progress towards understanding the major ideas within philosophical traditions, specifically those relevant to the self-designed thesis topic.
Demonstrate progress in the ability to advance and support a thesis, as well as analyze and critically evaluate the beliefs and arguments of others. Demonstrate pluralistic and flexible thinking, considering new ideas and critically reflecting on them.
Respond productively to advisor suggestions on topic, thesis statement, sources, and
organization of the senior thesis.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.

## PHIL 495. Undergraduate

Thesis (3). Produce an original substantive thesis-driven paper based on independent research. By permission. Prerequisite: PHIL 494 and advanced standing.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding the major ideas within philosophical traditions, specificity those relevant to the self-designed thesis topic.
Demonstrate the ability to advance and support an original thesis.
Analyze and critically evaluate the beliefs and arguments of others.
Demonstrate pluralistic and flexible thinking, considering new ideas and critically reflecting on them.
Respond productively to advisor's suggestions for revision.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.

## PHIL 496. Individual Study

 (1-6).PHIL 497. Honors Thesis (3).
Produce an original, thesisdriven honors level paper based on original research. Paper will be reviewed by a second departmental reader and presented in an open forum. Prerequisites: PHIL 494, advanced standing, and admission to the Philosophy and Religious Studies Departmental Honors Program. Upon successful completion of this course, the student will be able to:
Demonstrate an advanced understanding of the major ideas within philosophical traditions, specifically those relevant to the self-designed thesis topic.

Demonstrate an advanced ability to develop and support an original thesis.
Analyze and critically evaluate the beliefs and arguments of others.
Demonstrate a high degree of pluralistic and flexible thinking, considering new ideas and critically reflecting on them.
Respond productively to advisor's suggestions for revision.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.
PHIL 498. Special Topics (16).

PHIL 499. Seminar (5).
PHYS 101. Introductory Astronomy I (5). An inquirybased introduction to celestial motions, celestial objects, observational astronomy and the physics associated with each. Emphasis on stars and planets. NS-Patterns and Connections Natural World (L). Course will be offered every year (Fall). Prerequisite: eligible to enroll in MATH 101. Student must have received at least a 500 on the SAT, or a 19 on the ACT or a score of 50-Pre-Algebra or 26Algebra or 31-College Algebra or 31-Trigonometry on the Compass test or completed MATH 100B or a higher level math class.
Upon successful completion of this course, the student will be able to:
Use a star chart, planisphere, computer program, or app to predict motions and positions of celestial objects.
Describe how we know certain characteristics (e.g., distances, compositions) of celestial objects.
Describe and explain, using words and pictures, fundamental celestial motions and phenomena.
Apply important astronomical relationships to solve for or infer an unknown quantity. Compare and contrast the formation and evolution of
important celestial objects such as stars and planets.
PHYS 102. Introduction to Astronomy (4). An introduction to the physics of the bodies in our solar system with an emphasis on planets and the Sun. This course will include an emphasis how we observe the planets and Sun, current and past planetary missions, and the comparative evolution of bodies in our solar system. NS-Patterns and Connections Natural World (L).

Upon successful completion of this course, the student will be able to:
Describe the history of the solar system; the most important features of the surface, atmospheres, and orbits of the bodies in the solar system; and the physical processes that determine them. Describe the history of planetary missions in our solar system.
Explain why Mars, Venus, and
Earth have evolved into very different planetary bodies, including how this relates to global change.
Learn to interpret simple planetary data (such as spectral data) to determine the properties of a planetary body. Learn about the scientific process.
Calculate basic astronomical quantities like the flux of light at the top of an atmosphere or the force of gravity on the surface of a planet. Describe the motion of the Earth in the solar system including the cause of seasons. Estimate the properties of a given planet with a given mass and composition around a given star.
How to read, evaluate, and prepare presentations on current planetary science topics.
PHYS 103. Physics of Musical Sound (5). Basic principles of acoustics applied to the production of sound by musical instruments and the human voice. Related topics
include musical scales, human hearing, sound synthesis, and recording technology. Class format emphasizes active learning. NS-Applications Natural Science (L) (W). Course will be offered every year (Winter). Prerequisite: eligible to enroll in MATH 101.

Upon successful completion of this course, the student will be able to:
Analyze and compare sounds using waveforms, spectrums, and spectrograms. Describe and explain the structure of musical scales and the perception of harmony in terms of mathematical relationships
Collaboratively apply acoustics concepts and quantitative reasoning towards the design of a musical instrument or a scientific investigation. Describe and explain how musical instruments produce their characteristic sounds in terms of basic physical mechanisms
PHYS 106. Physics Inquiry
(5). An introduction to fundamental physics topics highlighting applications to the world around us. There will be an emphasis on learning by inquiry and on designing and critiquing solutions to real world issues. Course will be offered every year (Fall, Winter). NS-Fund Disc Phys and Biological Sciences (L). Upon successful completion of this course, the student will be able to:
Describe and explain
fundamental physics concepts in areas such as motion, forces, electricity, sound, and light. Rigorously describe and analyze fundamental physics processes in areas such as motion, forces, electricity, sound, and light.
Use scientific investigative techniques such as generating and testing hypotheses to answer questions about relevant physics concepts. Employ a quantitative and qualitative problem solving
approach to describing and analyzing physics concepts. Apply appropriate physics principles to assess and address a community safety issue and an energy management issue. Describe how the methods of inquiry in physics contribute to society.

## PHYS 108. Light and Color

(4). An introduction to topics in light and color with applications to technology in the arts. NS-Applications Natural Science (L). Upon successful completion of this course, the student will be able to:
Apply scientific investigative techniques to answer questions about light and color. Describe nature of color. Apply a quantitative approach to describing and analyzing simple optical systems. Apply a quantitative approach to describing and analyzing complex optical systems.

## PHYS 110. Math for

 Introductory Physics (1). Computational, algebraic, and trigonometric skills will be applied in physical situations.The skills and concepts covered are necessary for success in algebra-based introductory physics courses. Course will be offered every year. Fall and Summer and course will not have an established scheduling pattern.
Prerequisite: MATH 100C or milestone for MATH 153. Corequisite: PHYS 111 or PHYS 121.

Upon successful completion of this course, the student will be able to:
Use calculators to correctly evaluate expressions in typical physics problems. Manipulate algebraic expressions describing physical systems expressed only in variables to solve for unknowns in terms of knowns. Solve for the roots of quadratic equations to solve for an unknown.
Solve physics problems with up to three equations and three unknowns.

Apply principles of geometry to analyze angles associated with typical physics problems. Apply the Pythagorean Theorem, and trigonometric and inverse trigonometric functions to analyze physical systems.

## PHYS 111. Introductory

## Physics I with Laboratory

(5). An integrated experimental
and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry-based activities and experimental investigation. NS-Fund Disc Phys and Biological Sciences (L). Course will be offered every year (Fall, Winter, and Summer). Prerequisite: PHYS 110 OR eligible to enroll in MATH
172 OR successful completion of a comprehensive yearlong high school pre-calculus course, or equivalent, the year prior to enrollment in
PHYS 111. Co-requisite: PHYS 110 OR concurrent enrollment in a comprehensive year-long high school precalculus course, or equivalent. Upon successful completion of this course, the student will be able to:
Correctly describe and explain key physics topics in kinematics and dynamics such as displacement, velocity, acceleration, and Newton's laws as well as key components of those main concepts.
Demonstrate an ability to solve problems in kinematics and dynamics using the appropriate physical principles and techniques.
Demonstrate enhanced quantitative reasoning skills
and mathematical analysis skills.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons
between experimental measurements or observation and theory.

## PHYS 112. Introductory

Physics II with Laboratory
(5). An integrated experimental and analytical investigation of topics in rotational dynamics, wave mechanics, and conservation principles. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry-based activities and experimental investigation. Prerequisite: PHYS 111. Upon successful completion of this course, the student will be able to:
Correctly describe and explain
key physics topics such as linear \& angular momentum, energy, torque, simple harmonic motion, and oscillations as well as key components of those main concepts.
Demonstrate an ability to solve problems in kinematics and dynamics using the appropriate physical principles and techniques.
Demonstrate enhanced quantitative reasoning skills and mathematical analysis skills.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons between experimental measurements or observation and theory.
PHYS 113. Introductory Physics III with Laboratory
(5). An integrated experimental and analytical investigation of topics in electricity, magnetism, and optics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry-based activities and experimental investigation. Prerequisite: PHYS 111. Upon successful completion of this course, the student will be able to:

Correctly describe and explain key physics topics in electricity, magnetism, and optics as well as key components of those main concepts.
Demonstrate an ability to solve problems in kinematics and dynamics using the appropriate physical principles and techniques.
Demonstrate enhanced quantitative reasoning skills and mathematical analysis skills.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons between experimental measurements or observation and theory.

## PHYS 121. Introductory <br> Physics for Life Sciences I

(5). An integrated lecture/laboratory course covering kinematics and dynamics with emphasis on the application of physical concepts to biological systems. Students analyze physical systems using algebra and trigonometry. Class format includes lecture, inquiry-based activities, and experimental investigation. Four class meetings of 80 minutes each. Not open to students with credit in PHYS 181 Prerequisite: PHYS 110 or eligible to enroll in MATH 172.

Upon successful completion of this course, the student will be able to:
Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.
Demonstrate understanding of the process of scientific inquiry, and explain how scientific knowledge is discovered and validated. Demonstrate knowledge of basic physical principles and their applications to the understanding of living systems.
PHYS 122. Introductory Physics for Life Sciences II
(5). An integrated lecture/laboratory course covering conservation principles, thermodynamics, wave mechanics and sound with an emphasis on the application of physical concepts to biological systems. Students analyze physical systems using algebra and trigonometry. Class format includes lecture, inquiry-based activities, and experimental investigation. Four class meetings of 80 minutes each. Prerequisites: PHYS 121 and eligible for MATH 154 based on Math Placement Testing or a C or higher in MATH 153. Not open to students with credit in PHYS 182.
Upon successful completion of this course, the student will be able to:
Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world. Demonstrate understanding of the process of scientific inquiry, and explain how scientific knowledge is discovered and validated. Demonstrate knowledge of basic physical principles and their applications to the understanding of living systems.

## PHYS 123. Introductory

 Physics for Life Sciences III(5). An integrated lecture/laboratory course covering electricity and magnetism and optics with an emphasis on the application of physical concepts to biological systems. Students analyze physical systems using algebra and trigonometry. Class format includes lecture, inquiry-based activities, and experimental investigation. Four class meetings of 80 minutes each. Prerequisites: PHYS 121 and eligible for MATH 154 based on Math Placement Testing or a C or higher in MATH 153. Not open for students with credit in PHYS 183.
Upon successful completion of this course, the student will be able to:

Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world. Demonstrate understanding of the process of scientific inquiry, and explain how scientific knowledge is discovered and validated. Demonstrate knowledge of basic physical principles and their applications to the understanding of living systems.

## PHYS 181. General Physics I

 with Laboratory (5). An integrated experimental and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry-based activities and experimental investigation. Formerly PHYS 211, students may not receive credit for both. NS-Fund Disc Phys and Biological Sciences(L). Course will be offered every year (Fall, Winter, Summer). Co- or pre-requisite: MATH 172.
Upon successful completion of this course, the student will be able to:
Describe and explain key physics topics in kinematics and dynamics such as displacement, velocity, acceleration, and Newton's laws as well as key components of those main concepts Explain and interpret information from basic physical systems when presented in a variety of mathematical forms such as equations, graphs, diagrams, tables, and basic statistical measures.
Solve problems in kinematics and dynamics using the appropriate physical principles and techniques by converting the information into relevant mathematical forms.
Apply the appropriate science and engineering practices to model, test, and analyze the
data from physical systems to draw conclusions about the underlying physics.
Analyze and critique claims in physics problems and physics investigations involving quantitative information. Perform college-level arithmetical, trigonometric, and calculus to solve physics problems and analyze data from physics investigations.
PHYS 182. General Physics II with Laboratory (5). An integrated experimental and analytical investigation of topics in rotational dynamics, wave mechanics, and conservation principles. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry-based activities and experimental investigation. Formerly PHYS 212, students may not receive credit for both. Prerequisite: PHYS 181 and MATH 173. Corequisite: MATH 173. Upon successful completion of this course, the student will be able to:
Correctly describe and explain key physics topics such as linear \& angular momentum, energy, torque, simple harmonic motion, and oscillations as well as key components of those main concepts.
Demonstrate an ability to solve problems in kinematics and dynamics using the appropriate physical principles and techniques.
Demonstrate enhanced quantitative reasoning skills and mathematical analysis skills.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons between experimental measurements or observation and theory.
PHYS 183. General Physics
III with Laboratory (5). An
integrated experimental and
analytical investigation of
topics in electricity and magnetism. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry-based activities and experimental investigation. Formerly PHYS 213, students may not receive credit for both. Prerequisite: PHYS 181 and MATH 173. Corequisite: MATH 173.
Upon successful completion of this course, the student will be able to:
Correctly describe and explain key physics topics in electricity and magnetism as well as key components of those main concepts.
Demonstrate an ability to solve problems in kinematics and dynamics using the appropriate physical principles and techniques.
Demonstrate enhanced quantitative reasoning skills and mathematical analysis skills.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons between experimental measurements or observation and theory.
PHYS 201. Operation and Research Techniques for Small Observatories (3).
Students are trained to operate a small observatory, and to use CCD cameras to collect stellar photometry data. Prerequisites: PHYS 101, and either MATH 153 with a grade of C or higher or eligible for MATH 154
based on Math Placement Test. Upon successful completion of this course, the student will be able to:
Identify bright stars, asterisms \& other celestial objects; apply an understanding of the celestial sphere model and the right ascension \& declination coordinate system as appropriate to be effective at using small telescopes.
Set up and operate a small
telescope and the associated
equipment and software for both visual observation and acquisition of astronomical CCD images.
Obtain scientifically useful data using a telescope and CCD camera, including image acquisition, calibration frames, and image reduction. Effectively operate a small observatory. Specifically, students will be able to operate the mechanical, electrical, electronic, computer, and software systems of a small observatory.
PHYS 292. Exploring Physics
Teaching (2). Inquiry-based learning course that provides preparation for teaching physics using pedagogies that have been guided by physics education research.
Prerequisites: PHYS 113, PHYS 123, or PHYS 183. Upon successful completion of this course, the student will be able to:
Develop skills listening and responding to physics conceptions in a classroom. Use effective strategies for explaining physics skills and concepts.
Effectively self-assess and reflect on teaching practice. Develop pedagogical content knowledge in physics.
PHYS 296. Individual Study (1-6).
PHYS 298. Special Topics (1-
6).

PHYS 299. Seminar (1-5).
May be repeated if subject is different.
PHYS 301. Stellar
Astrophysics I (3).
Introduction to and application of physical principles, including; relativity, quantum theory, and classical physics associated with the characterization of astrophysical systems. Prerequisites: PHYS 101, PHYS 183, and MATH 173. Upon successful completion of this course, the student will be able to:
Describe (quantitatively and qualitatively) how astronomers
observe the basic properties (size, mass, distance) of stars. Apply what is learned from studying the light from stars. Make supportable inferences about what can be learned from the movement of binary stars. Describe and use the stellar classification scheme. Explain the physical processes that occur on the surface and in the interior of stars, including our Sun.
PHYS 302. Stellar
Astrophysics II (2).
Application of physical principles including relativity, quantum theory, classical electromagnetic fields, and classical mechanics to astrophysical processes and the evolution of astrophysical systems. Prerequisite: PHYS 301.

Upon successful completion of this course, the student will be able to:
Demonstrate the application of classical and modern physics principles to characterize and analyze astrophysical systems and phenomena.
Demonstrate the application of classical and modern physics principles to astrophysical processes and the evolution of astrophysical systems of simple and intermediate complexity.
Demonstrate quantitative and physical reasoning and mathematical analysis appropriate for astrophysical systems of simple and intermediate complexity. Students will either develop or employ a computational model for an astrophysical phenomenon or process. PHYS 304. Astrobiology: Origins and Search for Life in the Universe (4). This is an online interdisciplinary course focusing on life's origins and the potential for life in our solar system and beyond. It will be taught at a level suitable for non-science and non-math majors. Course will not have an established scheduling pattern.

Prerequisite: Sophomore standing or above.
Upon successful completion of this course, the student will be able to:
Develop a personal definition of life.
Describe why Earth is habitable for advanced life. Describe the history of life on Earth and the scientific evidence that supports that history.
Understand current research of astrobiologist.
Describe how the study of extreme life on Earth has broadened our understanding of what habitability means.
Describe how past, current, and future space missions contribute to our understanding of habitable zones on our solar system and beyond. Formulate theories on how humanity would react to the discovery or contact with extraterrestrial life based on past historical events and popular fiction.

## PHYS 317. Modern Physics I

(4). Topics in physics including relativity, particle physics, and history of modern physics. Analyzing physical systems using calculus, algebra, and trigonometry. Prerequisites: MATH 173 and either PHYS 113, or PHYS 123, or PHYS 183. Upon successful completion of this course, the student will be able to:
Describe and apply the fundamental concepts, principles, and theories of modern physics (with an emphasis on theories and concepts that primarily developed near the turn of the 20th century).
Explain these developments in their historical context, and to be able to describe the seminal experiments and theoretical insights that gave rise to major changes in our understanding of fundamental physics. Develop critical thinking, mathematical problem-solving and analytical skills.

Connect abstract concepts of modern physics with concrete objects and phenomena. Develop scientific communication skills.
PHYS 318. Modern Physics
II (4). Topics in physics including quantum physics and atomic structure. Analyzing
physical systems using calculus, algebra, and trigonometry. Prerequisite: PHYS 317.
Upon successful completion of this course, the student will be able to:
Solve quantum physics problems using the appropriate physical principles and techniques.
Solve atomic structure problems using the appropriate physical principles and techniques.
Apply the principles of quantum mechanics to analyze physical systems. Use the appropriate calculus, algebraic, and trigonometric principles to analyze physical systems.

## PHYS 320. Electrical

Circuits I (5). Application of fundamental concepts of electrical science in linear circuit analysis and the use of mathematical models in the analysis of electric components and circuits. Co-requisites: MATH 376 and PHYS 321. Prerequisites: PHYS 183. Upon successful completion of this course, the student will be able to:
Analyze linear circuits using important concepts from linear systems theory including transfer function, impulse response, and stability. Use Laplace transforms and differential equations to analyze linear circuits and characterize linear circuits. Analyze complex dc and ac linear circuits both analytically and with computer simulations.

## PHYS 321. Electrical

## Circuits I Laboratory (2).

This laboratory course will cover topics in electrical instruments, laboratory applications of electric laws,
and transient and steady-state responses of electrical signals. Prerequisite: PHYS 183. Corequisite: MATH 376 and PHYS 320.
Upon successful completion of this course, the student will be able to:
Design amp circuits to achieve specified functionality. Design and construct appropriate lab setups to test theoretical predictions obtained by circuit analysis. Design and implement a procedure to determine the electrical characteristics of an unknown circuit element.

## PHYS 322. Molecular

Biophysics (4). Introduction to biophysics on the molecular and cellular scales. Analyzing biological systems using classical mechanics, electrostatics and statistical mechanics. Course will be offered on even numbered years (Winter). Prerequisites: (PHYS 123 or PHYS 183 or PHYS 113) and MATH 173. Upon successful completion of this course, the student will be able to:
Summarize and critique current biophysics review articles, to demonstrate knowledge of biophysical principles. Apply principles of classical physics to describe the physical mechanisms involved in biological systems.
Develop familiarity and facility with some commonly used analytical tools for biophysical problems: calculus techniques, computational simulations, statistical analysis of data. Communicate about a specialized interdisciplinary topic to an audience from a variety of backgrounds, including physics, biology, health sciences, and chemistry

## PHYS 323. Experimental

Biophysics (4). Introduction to techniques in experimental biophysics. Topics include fluorescence microscopy, image processing, computational modeling, and statistical mechanics.
Prerequisite: PHYS 322.

Upon successful completion of this course, the student will be able to:
Design biophysics experiments, following the steps of the traditional scientific method. Develop an original research proposal for a project to be carried out with available biophysics equipment. Apply research methodology such as fluorescence microscopy to characterize and analyze biophysical systems. Summarize and critique current biophysics research articles, to demonstrate knowledge of modern experimental biophysics techniques and their applications to research.
PHYS 331. Laboratory
Practices and Techniques (3).
Topics in experimental techniques with emphasis in electronic systems. One class meeting and six hours laboratory per week. Prerequisite: PHYS 183.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to design, construct, analyze, and understand electronic circuits and electronic signals of intermediate complexity. Demonstrate an ability to apply electronic signals and circuits in investigating physical systems.
Demonstrate the ability to apply physical and mathematical theory to explain electronic systems of intermediate complexity. Demonstrate an ability to conduct and write about independent experimental investigations using appropriate scientific procedures.

## PHYS 333. Experimental

Physics I (3). Topics in experimental techniques used in physics. One class meeting and six hours laboratory per week. Prerequisite: PHYS 331. Upon successful completion of this course, the student will be able to:

Demonstrate the ability to design, construct, analyze, and understand fundamental physical systems of intermediate and advanced complexity by applying the scientific process. Demonstrate an ability to write about group experimental investigations using appropriate scientific procedures.
Demonstrate an ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons between experimental measurements or observation and theory.

## PHYS 334. Experimental

Physics II (3). Topics in experimental techniques used in physics. One class meeting and six hours laboratory per week. Prerequisite: PHYS 333. Upon successful completion of this course, the student will be able to:
Demonstrate an ability to conduct and write about experimental investigations using appropriate scientific procedures.
Demonstrate an ability to use computational tools in analyzing and reporting experimental data. Demonstrate knowledge and understanding of the fundamental concepts in experimental physics.

## PHYS 342. Thermodynamics

(4). The laws of thermodynamics and its application to macroscopic systems. Co- or prerequisite: PHYS 318.
PHYS 351. Analytical Mechanics I (3). Introduction to advanced physical concepts and mathematical techniques associated with dynamic systems including conservation laws, mpm-conservative forces, oscillating systems, non-inertial reference frames, and central-force motion. Prerequisites: PHYS 113 or PHYS 123 or PHYS 183. Pre- or co-requisites: MATH 273 and MATH 376.

Upon successful completion of this course, the student will be able to:
Determine the physical principles that govern a given problem
Formulate problems mathematically Identify useful approximations and simplifications
Recognize a general or useful form that a solution might take Use appropriate mathematical techniques needed to solve the problem
Interpret mathematical solutions in terms of the relevant physics

## PHYS 352. Analytical

Mechanics II (3). Further study of dynamic systems. Introduction to coordinate transformations, variational principles, Lagrangian and Hamiltonian methods, and nonlinear systems.
Prerequisite: PHYS 351. Upon successful completion of this course, the student will be able to:
Correctly apply Lagrangian and Hamiltonian formulations to the analysis of appropriate mechanical systems.
Analyze and predict the behavior of nonlinear systems using phase-space diagrams and logistic maps.
Perform coordinate
transformations, making use of rotation matrices, invariants, and matrix operations.
PHYS 361. Computational
Physics (4). Numerical methods of studying physical properties of realistic systems. FORTRAN, IMSL/MATH
Library, and
MATHEMATICA will be introduced. MATH 265 may be taken as a pre- or co-requisite. Prerequisites: PHYS 113 or PHYS 123 or PHYS 183. Co- or pre- requisite: MATH 265.

Upon successful completion of this course, the student will be able to:
Effectively use programming
packages Mathematica and
MATLAB (requiring an
understanding of what is under the hood of these programs) Translate real-life physics problems into mathematical statements that a computer can solve
Implement simple algorithms and procedures in a structured programming language
Evaluate computational errors and understand their origins and behavior
Effectively display data and computational results
PHYS 363. Optics (4). The mathematics of wave motion, electromagnetic theory, propagation of light, geometrical optics, and physical optics. Includes the experimental investigation of optical phenomena. Three class meetings and two hours laboratory per week. Prerequisites: MATH 173 and PHYS 113, or PHYS 123, or PHYS 183.
Upon successful completion of this course, the student will be able to:
Demonstrate a conceptual understanding of geometrical and physical optics.
Apply concepts and principles, together with physical intuition and mathematical methods, to solve problems in optics. Identify quantities that characterize optical systems and their components, as well as how they are measured. Develop some basic skills in experimental techniques and scientific working practices to measure optical quantities, and to analyze and interpret data.
PHYS 381. Electromagnetic
Theory I (4). Topics in
electrostatics including electric fields, electric potential, Gauss' law, electrostatic energy, and multipole expansions.
Prerequisites: PHYS 113
or PHYS 123 or PHYS 183
and MATH 265 and MATH
273.

Upon successful completion of this course, the student will be able to:
Develop an appreciation of and facility for applications of the principles of electromagnetic
theory (and specifically electrostatics) and the consequences thereof for a variety of systems of intermediate complexity. Develop familiarity and facility with some commonly used analytical tools for physical problems: coordinate systems, vector calculus, integration techniques, potential theory, multipole expansion, differential equations, application of boundary conditions, separation of variables, physical intuition. Develop understanding of the overall structure of the discipline of physics particularly with respect to classical field theories.

## PHYS 382. Electromagnetic

 Theory II (4). Topics in electrostatics and magnetostatics including the electrostatics of polarizable media, vacuum magnetostatics, magnetostatics in matter, and introduction to the Maxwell equations. Prerequisite: PHYS 381.Upon successful completion of this course, the student will be able to:
Demonstrate knowledge and understanding of the fundamental principles of principles of electromagnetic theory (and specifically systems containing moving charges).
Demonstrate an ability to
effectively apply this
knowledge in solving problems.
Demonstrate quantitative reasoning skills and mathematical analysis skills appropriate for classical field theory.
PHYS 383. Electromagnetic
Theory III (4). Topics in the
Maxwell equations,
electrodynamics, and electromagnetic waves.
Prerequisite: PHYS 382.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge and understanding of the fundamental principles of
electromagnetic theory (and specifically applications of the Maxwell equations, electrodynamics and electromagnetic waves). Demonstrate an ability to effectively apply this knowledge in solving problems.
Demonstrate quantitative reasoning skills and mathematical analysis skills appropriate for classical field theory.

## PHYS 392. Exploring Physics

Teaching II (2). Inquiry-based learning course that enhances preparation for teaching physics using best-practice pedagogies, lesson planning, and action research. May be repeated up to 6 credits. Prerequisite: PHYS 292. Upon successful completion of this course, the student will be able to:
Plan a basic physics lesson about a specific skill or concept.
Demonstrate research-based teaching practices. Effectively self-assess and reflect on teaching practice. Develop pedagogical content knowledge in physics.
PHYS 396. Individual Study (1-6).
PHYS 397. Honors (1-12).
Prerequisite: admission to department honors program. PHYS 398. Special Topics (16).

PHYS 399. Seminar (1-5).
May be repeated if subject is different.
PHYS 433. Experimental
Atomic, Molecular, and
Optical Physics (3). Students in the course will learn and apply some of the conceptual principles and fundamental laboratory techniques of atomic, molecular, and optical physics. May be repeated up to 6 credits. Course will be offered on even numbered years (Spring). Prerequisites: PHYS 318 and PHYS 333, or permission of instructor. Upon successful completion of this course, the student will be able to:

Design, set up, and evaluate an accurately aligned multicomponent optical system Interpret the results of a modulation spectroscopy measurement
Set up and test the frequency locking of an external cavity diode laser
Set up, operate, and evaluate
the performance of a magnetooptical trap
Measure the properties of a sub- micron scale object using an optical trap (optical tweezers)
Test the predictions of quantum mechanics using a CHSH formulation
Formulate a high temperature superconductor and perform and interpret measurements of the sample
Evaluate material properties using positron annihilation spectroscopy
Measure and interpret physical properties using an NMR apparatus
PHYS 441. Solid State
Physics (4). Introduction to the principles of solid state physics including crystal structures and symmetries, diffraction, reciprocal space, energy bands, and thermodynamics and transport phenomena. Course will be offered on odd numbered years (in Spring). Prerequisites: MATH 272 and (PHYS 318 or CHEM 382). Co-requisite: PHYS 318 or CHEM 382.
Upon successful completion of this course, the student will be able to:
Develop a conceptual understanding of the basic principles of solid state physics Apply concepts and mathematical methods to solve problems in solid state physics Apply their conceptual understanding of solid state physics to describe how certain modern devices and
technologies work
PHYS 454. Acoustics (4).
Theory, applications, and laboratory techniques related to sound and vibration. Topics include: wave propagation,
structural vibration, and interaction between sound and structures. Course will be offered on odd numbered years (Spring). Prerequisites: MATH 376 and PHYS 361 and (PHYS 351 or PHYS 342), or instructor permission. Upon successful completion of this course, the student will be able to:
Develop mathematical models
of sound radiation, outdoor propagation, and structural vibration.
Solve problems in acoustics using the following mathematical techniques: differential equations Fourier analysis eigenvalue equations complex variables
Predict the behavior of vibrational and acoustic systems using computational methods.
Design, set up, and evaluate acoustics and vibration measurement systems. Analyze measurement data with signal processing tools.
PHYS 461. Advanced Computational Physics (4). Applications of standard numerical modeling techniques to physics problems involving nonlinear and/or differential equations, including wave propagation, fluid flow, thermodynamics, electrodynamics, and particle physics. PHYS 461 and PHYS 561 are layered courses; students may not receive credit for both. Prerequisites: MATH 376 and PHYS 361.
Upon successful completion of this course, the student will be able to:
Characterize the mathematical equations corresponding to common types of physics problems (e.g. hyperbolic differential equations for wave propagation) and identify appropriate numerical solution methods
Use Mathematica and
MATLAB to solve a variety of physics problems and to effectively display the results of computations

Implement finite-difference algorithms to solve time dependent partial differential equations using either the c or FORTRAN programming language
Implement finite-element algorithms to solve boundary condition driven problems using either the C or FORTRAN programming language
Quantify the numerical errors associated with discretization

## PHYS 463. Fundamentals of

Lasers (4). Overview of laser technology with emphasis on laser characteristics, safety, and applications. Prerequisite: PHYS 363.
Upon successful completion of this course, the student will be able to:
Select a laser for a given application in terms of desired wavelength and power. Select a detector for a given application in terms of desired wavelength and power. Apply the ABCD law to determine whether a laser cavity is stable or unstable. Apply Gaussian beam optics to explain the characteristics of laser radiation.
Apply the principles of Fourier mathematics to explain optical phenomena.
Apply electromagnetic theory to explain the principles of optics.

## PHYS 474. Quantum

Mechanics I (4). Methods of quantum mechanics and applications to physical systems. Examples from nuclear, atomic, and molecular physics. Prerequisites: PHYS 318 and MATH 376. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge and understanding of the fundamental principles of principles of quantum mechanics.
Demonstrate an ability to effectively apply this knowledge in solving problem. Demonstrate enhanced quantitative reasoning skills
and mathematical analysis skills.

## PHYS 475. Quantum

Mechanics II (4). Methods of quantum mechanics and applications to physical systems. Examples from nuclear, atomic, and molecular physics. Prerequisites: PHYS 474.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge and understanding of the
fundamental principles of principles of quantum mechanics.
Demonstrate an ability to
effectively apply this
knowledge in solving
problems.
Demonstrate enhanced quantitative reasoning skills
and mathematical analysis skills.

## PHYS 489. Senior

Assessment (1). An end-ofmajor course consisting of curriculum review and program assessment activities. By permission. Prerequisites: senior standing and admission to the physics major. Upon successful completion of this course, the student will be able to:
Identify their academic strengths and weaknesses specific to the physics major core and elective areas of interest and the Department's program goals.
Synthesize and demonstrate their cumulative physics knowledge and physics problem-solving abilities.
PHYS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . PHYS 491. Workshop (1-6).

PHYS 492. Laboratory
Experience in Teaching
Physics (2). By permission. May be repeated up to 6 credits.
PHYS 495. Undergraduate Research (1-2). By
permission. May be repeated up to 12 credits.
Upon successful completion of this course, the student will be able to:
Formulate meaningful and testable research questions Effectively utilize scholarly literature to advance a research project
Demonstrate an ability to apply
content knowledge associated
with Physics major curriculum outcomes
Demonstrate an ability to apply
laboratory and/or
computational and/or
pedagogical skills associated with Physics major curriculum outcomes
Appropriately interpret data and/or computational results and quantify sources of uncertainty
Appropriately reflect on lesson plan/classroom activity results/assessment data and make instructional decisions based on this reflection Effectively communicate scientific ideas

## PHYS 496. Individual Study

 (1-6).PHYS 497. Honors (1-12).
Prerequisite: admission to department honors program. PHYS 498. Special Topics (16).

PHYS 499. Seminar (1).
POSC 101. Introduction to
Politics (5). This course explores the meanings of power, political actors, resources of power and how they are being used for what purposes, under what ideological, institutional and policy processes affecting our quality of life. Course will be offered every year (Fall, Winter, Spring, Summer). SB-
Foundations of Human
Adaptations and Behavior (W).

Upon successful completion of this course, the student will be able to:
Identify the basic terminologies, concepts, political processes, and theories in the study of politics and power structure Students will distinguish the issues of "what to see," "why," and "how to see" in real world situations: recognize the dynamic and complex structure of power within which diverse political issues occur. Analyze and identify political actors, their resources of power, and the interconnections between political, social and economic power.
Appraise how citizens in a given society can effectively participate in political processes and impact government's policy decisions Explain how various types of political ideologies, political culture, government institutions, levels of industrialization, geographic location and current globalization phenomena affect people's lives.
Apply knowledge and critical thinking skills to about "things political" to stimulate continued inquiries in the study of politics.
POSC 210. American Politics
(5). Origin and development of the United States government; structure, political behavior, organizations, and processes; rights and duties of citizens. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on Cultures and Experiences of U.S.
Upon successful completion of this course, the student will be able to:
Recognize the procedures and purposes of the major US institutions (Congress,
Presidency, Courts and Federalism.)
Describe and explain the historical development of US political culture and voter preferences.

Analyze how individual citizens collect political information and develop values and policy preferences, and express them through political participation.
Examine evolving rights \& responsibilities in US Constitution, Bill of Rights and appraise their effects upon US political development, culture, diversity and citizenship. Evaluate major historical and current public policy debates and differentiate arguments and positions.
Identify collective decision making procedures of the US government; apply disciplinary models to explain outcomes. Identify and explain basic concepts of American politics and government used in political science and the real world.
POSC 230. State and Local Government (5).
POSC 250. Language and
Power (5). This course surveys political uses of language and consequences for society. It covers concepts in cultural politics, identity politics, and sociolinguistics. Students propose plans to use language to make societies more just and sustainable. WLC 250 and
POSC 250 are cross-listed courses; a student may not receive credit for both. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Recognize, define, and explain
key concepts in cultural politics, identity politics, and sociolinguistics Recognize and reflect on how key concepts in cultural politics, identity politics, and sociolinguistics inform their own experiences with language, power, and wellbeing in their personal, social, professional and economic lives Identify and describe relationships between the exercise of power and use of language in politics, public
policy, education, the work place, media, and the arts Recognize, appraise, and compare beneficial and detrimental consequences to individuals, communities, and societies of different uses of language for specific purposes and in different places and historical periods Propose and outline plans to use language to improve political participation, systems of justice, community development, employment policies, public funding for the arts and media, K-12 education, second-language education, or language revitalization programs to make multicultural and multilingual communities and societies more healthy, just, and sustainable.
POSC 260. Comparative
Politics (5). Comparative political analysis, utilizing a variety of methods and theoretical approaches; application to selected western and non-western systems. Recommended to precede other courses in comparative politics. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Identify basic concepts, processes, and theories of Comparative Politics Identify comparative political issues in an historical and contemporary context Explain the formal connections between political, social and economic power and governmental performance across countries Analyze the impact of politics, culture, history and economics on contemporary political systems and develop answers to address these problems. Explain how the structures of governance affect comparative institutional performance as concerns issues of equality and equity.
Apply knowledge and critical thinking skills to address the
performance of diverse national political systems.
POSC 270. International
Relations (5). This course explores political issues and theories in international relations. This class will focus on issues of war and peace, international law and organization, foreign policy, diplomatic history, and international political economy. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on World Cultures (W). Upon successful completion of this course, the student will be able to:
Identify the basic concepts, processes, and theories of international relations. Identify global issues in an historical and contemporary context.
Explain ithe connections between global inequality and political, social and economic power.
Analyze the impact of politics, culture, history and economics on contemporary global issues and develop answers to address these problems.
Explain how gender, economic class, ethnicity and sexuality impact human rights in international relations. Apply knowledge and critical thinking skills to address global problems.
POSC 280. Introduction to Western Political Thought
(5). This course explores political thought in the West from its origins in Ancient Greece through the 20th century. This course examines concepts such as democracy, religious freedom, ethics, realism, citizenship, and human nature. Course will be
offered every year (Fall, Spring, and Summer). Upon successful completion of this course, the student will be able to:
Identify basic concepts, processes, and theories of normative political theory

Identify normative political issues after reading the works of normative political theorists Explain the connections between the normative concepts and insights of the past (ancient, medieval, etc..) and contemporary issues including religious freedom, democracy, and social justice. Analyze western normative concepts and interpretations of the human experience with concepts and interpretations from non-western thinkers and traditions.
Identify and analyze how our normative assumptions and presuppositions shape our response to issues of social justice around the globe. Analyze how religious traditions and normative political thought have shaped the human experience. Explain and analyze how ideas concerning gender, sexuality, race, class and ethnicity have been utilized to promote social justice over various historical periods.
Discuss social justice from multiple historical, religious, and ethical perspectives and explain what factors that make social justice difficult to obtain and maintain
POSC 298. Special Topics (16).

POSC 299. Seminar (1-5).
May be repeated if subject is different.
POSC 311. Women and
Politics (5). The politics of human sexuality: men's and women's rights, sex roles, sexual discrimination, laws governing sexuality, and related issues.
POSC 313. The Legislative
Process (5). The Congress of the United States, drafting of bills, legislative leadership, the committee system, relation to executive and judicial branches, pressure groups.
POSC 314. American Presidency (5). The office of the chief executive: its constitutional, political, and administrative processes.

POSC 315. Political

## Campaigns and Elections (5)

Evaluations of campaign techniques and practices; campaign financing and expenditures; voting behavior; election theory; elections and public policy.

## POSC 316. Latinos and the

U.S. Political System (5). This course examines the political reality of Latinos in the United States: a diverse population made up largely of Mexican, Puerto Rican, Cuban American, and other Latinos of Central and South American origins.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the history of the Latina/o population political relations with and experiences in the US political system.
Demonstrate knowledge on the variety of methods and theories utilized to approach, analyze, and understand the Latina/o
political experience in the United States.
Demonstrate knowledge of the history of political
organizations from mutual aid societies to contemporary civil rights organizations.
Demonstrate knowledge of the nature of Latino electoral behavior and political participation.
Demonstrate knowledge of basic policy issues
(Immigration, education, criminal justice, language policy, foreign policy, and the economy) affecting the largest ethnic racial minority in the US.
Demonstrate knowledge of the Latina/o community experience towards power, authority, role of government, and actions taken by governmental bodies. Use library resources and Internet research tools to find scholarly information about research questions. Incorporate knowledge acquired in the course in a
written report on a topic of students' choice.
POSC 318. Political Parties and Interest Groups (5).
Theories of party systems; elitism and pluralism; party organization, functions, and activities; status, functions, and activities of interest groups in the public policy-making process.

## POSC 320. Public

Administration (5). Setting, purpose, functions, and performance of public bureaucracy in the United States.
POSC 325. Introduction to
Public Policy (3). Institutional context, politics and processes of agenda setting and policy formulation, implementation, evaluation, change and termination in the United States.
POSC 340. Politics and American Capitalism (5). A survey of the interrelationship of the worlds of politics and business enterprise in American history; analysis of relevant philosophical and ideological arguments; case studies in such areas as industrial and trade policy.
POSC 341. Politics and
Religion (5). The impact of religion upon American political thought and behavior. POSC 342. U.S. Foreign Policy (5). Factors, processes, and techniques in the formulation and execution of the foreign policy of the United States.
Upon successful completion of this course, the student will be able to:
Understand something of the historical background and context of American foreign policy.
Recognize the existence of multiple "actors" in the making of American foreign policy at the national, governmental level.
Gain an appreciation and comprehension of the interrelationships between internal, domestic factors such as fundamental cultural values
and interest groups, and the formulation of policy at the national, governmental level. Critically analyze and evaluate the appropriateness of given policies from the standpoint of different participants and from the standpoint of those to whom such policies are directed.
Understand the different models and frameworks utilized by political scientists in the study of American foreign policy. Understand the basic theoretical or comparative framework for identifying similarities and dissimilarities among the world's varied political systems.
POSC 343. The Politics of the U.S. Mexico Border (5). This course examines the politics of the United States and Mexico border region focusing on the important role of the state in the development of policies affecting one of the longest border regions in the world. Topics covered in the course include the politics of border regions and the national state, and the diverse policy concerns of the region from economic development and immigration, to ecological degradation, and health concerns.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the various terms associated with the study of borders, frontiers, borderlands, and boundaries. Demonstrate knowledge of the various theories of the state, power and political economy and their application to the USMexico border region.
Demonstrate knowledge of the history of US-Mexico relations and their impact in the development of the border region from the Mexican American War to contemporary times. Demonstrate knowledge of the basic policy issues, specific to the US-Mexico border region (economic development, immigration, urbanization,
ecological degradation, and security concerns)
Use library resources and Internet research tools to find information about research questions.
Incorporate knowledge acquired in the course in a written report on a topic of the student's choice.
Properly document sources in research and writing, as well as organize, present, and communicate opinions in thoughtful and coherent fashion.
Demonstrate knowledge of the US-Mexico border region in comparative perspective with other regions in the world.
POSC 344. Environmental Politics (5). Introduces contemporary environmental problems and politics. Activities and projects enable students to examine how political systems, institutions, policy processes, movements, perceptions of the environment, and power account for outcomes in environmental policy, administration, and development. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Recognize and identify roles of political systems and institutions, policy processes, movements, and relations of power in creating outcomes observed in environmental policymaking and public administration Examine and describe environmental problems and related ecological processes that pose challenges to sustainable development that must be addressed by political and policy processes Examine contemporary political conflicts and debates related to a particular environmental problem and appraise how these are informed (or not) by research findings on dimensions of the environmental problem

Apply models from public policy and the social sciences to assess how relations of power influence the efficacy of solving environmental problems and addressing challenges to sustainable development
Formulate and propose political and policy solutions to a particular contemporary environmental problem
POSC 350. Introduction to
Public Law (5). Legal bases and structure of governmental organization; fundamental doctrines and principles of constitutional, international, and administrative law.
POSC 361. Latin American
Politics (5). A comparative introduction to the political systems, cultures, and histories of Latin America and to prominent theories on democracy and political and economic development. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of political systems typical in Latin America
Demonstrate knowledge of political cultures of Latin America
Explain theories of political and economic development Explain theories of democracy Demonstrate knowledge of one of five countries studied indepth during the term
POSC 362. European Politics
(5). Comparative analysis of political cultures, civil societies, parties and elections, and systems of governance in a selection of European countries.
Upon successful completion of this course, the student will be able to:
Demonstrate a comprehensive
knowledge of the essential functions of democratic governance.
Demonstrate a satisfactory knowledge of the nomenclature used in each country. Explain how the functional components of states fit together (congruence) and
interact to represent and govern polities.
Trace the institutionalized patterns through which a given function is accomplished in the selected countries.
Deal effectively
function/nomenclature problems.
Draw lessons and make recommendations to improve effectiveness and/or congruence for countries with problems from successful countries.
POSC 363. Russian Politics
(5). Evolution, patterns, and comparative analyses of the Russian polity.
Upon successful completion of this course, the student will be able to:
Identify, describe, and explain major concepts, themes and theories relevant to non-state actors, institutions, and political behavior of Russian polity/political system Explain and demonstrate effects of Russian history (prerevolutionary, Communist era, post-Communism) on contemporary politics, especially transitions from Communist rule to political system of today Apply political science models and methods of comparative political analysis to Russian system through comparative examination of European and other relevant nations to critically evaluate Russia's political development Explain and assess Russia's geopolitical contexts and analyze relations with other nations, international state and non-state actors Develop and ask appropriate questions and utilize appropriate research tools such as comparative case study approaches or expert analysis to critically evaluate a specific topic or controversy in course subject matter and/or current event(s) as well as demonstrate effective written
communication
POSC 365. African Politics
(5). Comparative analysis of
the political systems of the African continent, including historical, social, economic, and international contexts. Upon successful completion of this course, the student will be able to:
Demonstrate basic knowledge of African political geography (e.g., country locations, names, colonial rulers, leaders, etc.)
Demonstrate mastery of various analytic concepts, facts, and political science models (within sub-field of comparative politics) and how they apply in the African context and/or to African political systems
Improve research, analytical and written communication skills
POSC 366. Government and Politics of East Asia (5). An introduction to the politics and governments of selected East Asian countries. Focus will center on China, Japan, and Korea.
POSC 367. Politics of Japan
(5). Investigation and analysis of politics and government in contemporary Japan.
POSC 369. Korean Politics
(5). Political systems, institutions, and processes of contemporary North and South Korea.
POSC 372. Politics of Globalization (5). Inquiry in the nature and trends of globalization from the economical, political, and cultural perspectives, and their impacts on our way of life. Roles of government, nongovernment organizations, and global institutions will be examined.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of basic terms, concepts, dominant ideologies and theories of globalization since the 1970s.
Demonstrate an understanding of major actors, institutions, systems and structures of globalization as powerful new forces of social change.

Identify and understand both state power and nongovernmental organizations as powerful political actors in the current system of globalization. Identify current issues in globalization studies such as global campaigns for democracy, the economic and cultural dimensions of globalization, and the gendered nature of globalization. Demonstrate an understanding of political resources in globalization (e.g., information technologies, global networking ability, finance, oil, gender, etc.), and their impacts on our daily lives.
Demonstrate an understanding of the meanings of Americanization and globalization through analysis of economic and cultural dimensions of current path of globalization.
Demonstrate how to investigate the dynamic nature of globalization that involves many countries in multidimensional areas (e.g., politics, economics, culture, security, environment, gender, etc.).
POSC 373. International Politics of the Pacific Rim (5).
Political and economic relations of the contemporary Pacific Rim. Special focus on North America, Russia, and East Asia.
POSC 375. The Middle East and International Politics (5). POSC 376. International Organization (Put on reserve 9/16/17) (3). Background, concepts, structure, and functions of international organization. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.)
POSC 378. International Political Economy (5).
Political problems of management and development in the global economy and the prospects for creating improved mechanisms at the international level and for lessdeveloped countries.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of basic terms, concepts, dominant ideologies and theories of international political economy (IPE) since WWII.
Demonstrate an understanding of major actors, institutions, systems and structures of IPE in contemporary society.
Identify current issues in IPE such as trade regime, transnational corporate structure, international debt trap, politics of industrialization and development, and the gendered nature of IPE.
Demonstrate an understanding of political resources in contemporary society (e.g., oil) and how they are used in real world situations affecting people.
Demonstrate an understanding of the U.S. economic policies and their impact on contemporary IPE system.
Demonstrate how to investigate the dynamic and symbiotic relationships between politics and economics in contemporary society.
POSC 396. Individual Study
(1-6). May be repeated if subject is different.
POSC 397. Honors (1-12).
Prerequisite: admission to department honors program.
POSC 398. Special Topics (16).

POSC 399. Seminar (1-5).
May be repeated if subject is different.
POSC 401. Nobel Prize Winning Political Scientists
(5). A discussion course that examines the lives and work of five Political Scientists from the American academy who have won either the Nobel Peace Prize or the prize in economics. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:

Examine the thinking and approaches from various scientific disciplines that defined the lives and careers of the Nobel Prize winners. Write a short topical review article based on the assigned readings from each Nobel Laureate. (At least one of the articles must deal with the specified criteria in Health and Well Being and the Ways of Knowing pathways.) Synthesize and evaluate a trend from class postings in a short class presentation for each segment.
Propose, compose and write a paper on the Prize, the winner(s) and some idea or body of work and prepare a presentation for the final class sessions and @ SOURCE. POSC 410. Contemporary Issues in American Politics (3-5). Focus on specific contemporary issues in US politics, with emphasis on indepth analysis and utilization of available research tools. Subject matter will vary by instructor and with the changing nature of the American political scene. Upon successful completion of this course, the student will be able to:
Identify, describe, and explain relevant disciplinary and topical concepts in current American polity (politics, government, political economy, policy, etc.) Analyze, discuss and assess contemporary issues in subfield and controversies surrounding politics and policy of such issues experts in the field as well as political practitioners Develop and ask appropriate question(s) and prepare appropriate research design methodologies to specific topic or controversy in course subject matter and/or current event(s) Utilize, illustrate and apply political science models and research tools to come to an appropriate conclusion as well as relate political science
literature to "real world" political and policy issues of the day
POSC 411. American Indian Politics and Sovereignty (4).
Examines American Indians as sovereign nations and as participants in U.S. politics. Provides historical and contemporary overview of legal and political experiences of native Americans in the USA. Course will be offered on on odd numbered years (Spring).
Upon successful completion of this course, the student will be able to:
Synthesize the political impacts in the creation of contemporary Indian Country and Indian Governance across the different arenas of interaction and time frames. Appraise the relevance of key concepts (e.g., sovereignty, self-determination) in different contexts and revise/modify concepts to fit circumstances (e.g., Dakota Access Pipeline). Evaluate the effectiveness of tribal rights under different conditions (i.e., historical eras, court cases, etc.).
Develop strategies for the effective application of tribal rights in the changing American Political landscape.

## POSC 429. Research

 Seminar in Public Policy (35). Review of theory and methods, proposal for policy analysis, preparation, and presentation of policy analysis. Prerequisites: POSC 320 or 325 or by permission. Upon successful completion of this course, the student will be able to:Gather factual data and apply them to real societal problems in public policy.
Demonstrate an ability to select among alternative academic models of the policy process; critically analyze and evaluate existing public policy case studies.
Utilize a variety of concepts and models to evaluate public policy problems, offer recommendations to guide
decision making or evaluate decisions already made for feedback or adjustment in approach.
Demonstrate and employ effective professional communication of oral and written formats through invention, organization, drafting, revision, editing and presentation.
Participate, collaborate, and communicate effectively within groups with an emphasis on listening, analytical and reflective thinking, and speaking.

## POSC 441. Politics and Film

(5). Since its inception, film has been used to convey political ideas and ideologies, as well as offer social and political criticism. This class will examine the techniques film directors and writers use to "manipulate" the viewing audience.
POSC 451. Introduction to Constitutional Law (5). Role of the United States Supreme Court in shaping governmental structure of the United States.
POSC 452. The Constitution and Human Rights (5). Role of the United States Supreme Court in the development of political and social rights.
POSC 453. The Constitution and War (5). Americans like to believe that the Constitution is a constant--in effect during times of peace and during times of war. The truth is more complicated. If history is our guide, the Constitution has been far more "flexible" in times of was than most Americans would like to admit. This class examines how the nation and its presidents have applied the Constitution during times of extreme crisis. Upon successful completion of this course, the student will be able to:
Describe the challenges facing policy makers when balancing freedom and security in times of war and crisis.
Compare and contrast the American policies during the
"War on Terror" with policies
during previous wars and crises.
Differentiate between legal and political solutions to security crises over time.
Identify and understand major shifts in policy regarding civil liberties in times of war or crises.
Apply knowledge of war time civil liberties law to current events and topics.
POSC 460. Contemporary
Issues in Comparative
Politics (3-5). Focus on a
specific contemporary issue in the field of comparative politics, with an emphasis on in-depth analysis and utilization of available research tools. Subject matter will vary with the instructor and with the changing nature of world politics. May be repeated by sub-topic two times, for a maximum of 10 credits. Upon successful completion of this course, the student will be able to:
Identify, describe, and explain concepts and theories relevant to contemporary comparative politics (politics, government, political economy, policy, etc. across more than one polity or national political system) Analyze, discuss and assess contemporary issues in subfield and controversies surrounding politics and policy of such issues experts in the field as well as political practitioners
Develop and ask appropriate question(s) and prepare appropriate research design methodologies such as qualitative or quantitative comparative case study approaches to specific topic or controversy in course subject matter and/or current event(s) Utilize, illustrate and apply political science models and research tools to come to an appropriate conclusion as well as relate political science literature to "real world" political and policy issues of the day
POSC 470. Contemporary Issues in International

Relations (3-5). Focus on specific contemporary issues in the field of international politics, with an emphasis on in-depth analysis and utilization of available research tools. Subject matter will vary with the instructor and with the changing nature of world politics. May be repeated by sub-topic two times, for a maximum of 10 credits. Upon successful completion of this course, the student will be able to:
Identify, describe, and explain concepts and theories relevant to contemporary international politics (politics, policy and relationships between nations or across the global geopolitical system)
Analyze, discuss and assess contemporary issues in subfield and controversies surrounding politics and policy of such issues experts in the field as well as political practitioners
Develop and ask appropriate question(s) and prepare appropriate research design methodologies such as qualitative or quantitative cross-national approaches to specific topic or controversy in course subject matter and/or current event(s) Utilize, illustrate and apply political science models and research tools to come to an appropriate conclusion as well as relate political science literature to "real world" political and policy issues of the day

## POSC 475. International

Human Rights (5). A survey of internationally recognized human rights, analysis of relevant international laws, case studies in women's rights, minority rights, and humanitarian policies. Upon successful completion of this course, the student will be able to:
Identify the important political actors (states, IGOs, NGOs) in international relations who affect human rights

Identify what international human rights consists of Demonstrate knowledge of the historical development of international human rights Identify international laws that protect human rights Identify policies to protect human rights
POSC 481. Early Political
Thought (5). Plato to
Machiavelli.
POSC 482. Early Modern
Political Thought (5). Political
thought in the 16th, 17th, and 18th centuries.
POSC 483. Recent Political
Thought (5). Political thought in the 19th and 20th centuries.
POSC 485. American
Political Thought and
Culture (5). The ideas and circumstances that have shaped the political culture of the U.S., as reflected in the works of selected political theorists, politicians, and literary figures. Upon successful completion of this course, the student will be able to:
Know different conceptions of democracy
Know the influence of religion on American culture
Know the influence of ideas of racial and gender equality
Know the influence of ideas of economic justice
Know the implications of the interplay between federal and state governments
Understand the influence of individual thinkers, religious leaders, and politicians Understand the historical evolution of our system
POSC 488. Introduction to Political Science Methods and Research (5). Class will introduce students to the research methods of political scientists. Taught in a seminar format, the class will engage in an original research project culminating in a peer-reviewed article submission to an academic journal. Students will learn to write literature reviews, collect data, analyze data using SPSS, and write academic research papers. By instructor permission.

Upon successful completion of this course, the student will be able to:
Construct basic causal models using multiple Independent variables and a singular dependent variable.
Reproduce a literature review of the given research project by examining the previous research on the given topic. Collect data for the given research project using the Internet, online databases, and participant interviews.
Organize and compile collected data into SPSS worksheets.
Analyze collected data using basic statistical methodologies. Compose a research paper summarizing the finding of the collected and analyzed data.

## POSC 489. Senior

Assessment (2). A "capstone" course designed to assess students' mastery of fundamental knowledge of politics and of writing and analytical skills. Co- or prerequisites: POSC 101, POSC 210, POSC 260, POSC 270, and either POSC 481, POSC 482, POSC 483, or POSC 485 and senior standing. Upon successful completion of this course, the student will be able to:
Develop, or one hopes, further refine students' writing skills in the context of the study of politics.
Read primary and secondary sources in the student's chosen research area.
Review and be able to demonstrate knowledge of the fundamentals and foundation of the discipline of political science at the undergraduate level.
Demonstrate an acceptable level of analytical and research skills.
Evaluate, by way of the end-ofcourse questionnaire, the faculty of this department, its curriculum, and its program. Develop, in the process of the course, a greater understanding of the nature of the discipline of political science.

Develop, in the process of the course, an appreciation of the diversity and complexity of political life from an historical and from a contemporary perspective.
Differentiate between subjective values and opinions and objective facts. Learn to organize one's thoughts and communicate those thoughts in a clear, written form.
Become an all-round good person, eat all one's vegetables, don't be cruel to animals (unless they deserve it), and struggle against corporate fascism.
POSC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, nonprofit organizations or government. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit up to maximum of 12 credits. Grade will either be S or U.
POSC 496. Individual Study (1-6).
POSC 497. Honors (1-12).
Prerequisite: admission to department honors program.
POSC 498. Special Topics (16).

POSC 499. Seminar (1-5).
PRIM 220. Procedures in
Captive Primate Care (1).
Laboratory procedures to
ensure physical, social, and psychological well-being of captive nonhuman primates: sanitation, safety, medical care, diet, USDA requirements, and socio-psychological factors.
Upon successful completion of this course, the student will be able to:
Identify chimpanzees
behaviors and their contextual meanings
Gain familiarity with a system of abbreviations for behavioral observations
Learn and perform husbandry tasks such as cleaning enclosures around captive
chimpanzees. They will understand safety protocols Read about the nature of chimpanzees and their social behavior and the history of the
sign language research
Learn basic laboratory
management
Identify individual
chimpanzees at CSNW
PRIM 298. Special Topics (1-
6). May be repeated if subject is different.
PRIM 299. Seminar (1-5).
May be repeated if subject is different.
PRIM 320. Laboratory Research in Primatology (Put
on reserve as of 9/16/15.) (1-
3). Laboratory research under the supervision of a program professor. May be taken concurrently with and as a supplement to other 300-400level ANTH/BIOL/PSY/PRIM courses. May be repeated up to 6 credits. Grade will either be
S or U. Put on reserve as of
$9 / 16 / 15$. Will go inactive
$8 / 24 / 18$. Prerequisite: PRIM 220.

PRIM 396. Individual Study
(1-6). May be repeated if subject is different.
PRIM 397. Honors (1-12).
Prerequisite: admission to department honors program.
PRIM 398. Special Topics (1-
6). May be repeated if subject is different.
PRIM 399. Seminar (1-5).
May be repeated if subject is different.
PRIM 450. Primate Behavior
and Ecology Capstone (1). A
capstone course designed to assess students' mastery of fundamental knowledge of primatology through submission of a portfolio of work collected throughout the program. Includes exit interview with program director. Prerequisite: senior standing.
Upon successful completion of this course, the student will be able to:
Prepare a portfolio of work in primatology.

Articulate if and how her or his attitudes have changed during the PBE program. Identify ways for program faculty to improve research and internships experiences provided by the PBE program.
PRIM 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission.
May be repeated for credit. Grade will either be S or U .
PRIM 496. Individual Study
(1-6). May be repeated if subject is different.
PRIM 497. Honors (1-12).
Prerequisite: admission to department honors program.
PRIM 498. Special Topics (1-
6). May be repeated if subject is different.
PRIM 499. Seminar (1-5).
May be repeated if subject is different.
PRIM 495A. Directed
Research in Primatology (1-
5). By permission. May be repeated for credit. Grade will be either S or U .
Upon successful completion of this course, the student will be able to:
Create a testable research hypothesis.
Select appropriate data collection method.
Collect data relevant to research hypothesis.
Write a scientific report.
PRIM 495C. CHCI Directed
Research (1-10). Directed primatological research at the Chimpanzee and Human Communication Institute. By permission. May be repeated for credit. Grade will either be S or U. Prerequisite: PRIM 220.

Upon successful completion of this course, the student will be able to:
Interact with data.

Describe research protocols and procedures at CHCI by readings and research tasks.
PSY 101. General Psychology
(5). The study of the basic principles, problems and methods that underlie the science of psychology, including diversity, human development, biological bases of behavior, learning, sensation and perception, cognition, personality, and psychopathology. Course will be offered every year (Fall, Winter, Spring, Summer). SBFoundations of Human Adaptations and Behavior. Upon successful completion of this course, the student will be able to:
Identify and interpret basic psychological theory and principles that underlie human behavior and interaction (individual, group, cultural, and societal) with regard to biology, cognition, and emotion.
Identify, explain, and apply the different empirical methods used in the subfields of Psychology (research study design, data collection methods, and data analysis). Compare and contrast human behavior, perspectives, and culture through exploration of the human cognitive thought processes.
Explain ways in which humans perceive, experience, and interact with the natural and human-made environments Describe and evaluate diversity and similarities with regard to behavior and the thought process in the areas of culture, social, gender, age, and ethnicity.
Describe and evaluate the biological bases of behavior and the role of biology in fostering a better understanding of the human condition
Describe and evaluate the role of human development in the contribution of behavioral
differences.
Describe and evaluate
abnormal behavior and role in
which behavior plays a role in understanding differences among humans and how to foster greater respect, understanding of our differences and compassion for the human condition.
PSY 200. Introduction to the
Major (1). Orientation to the
psychology major. Grade will either be $S$ or $U$. Prerequisite: must be declared with a psychology major program. Upon successful completion of this course, the student will be able to:
Identify a range of possible careers in psychology.
Select electives appropriate to an initial specialization. Identify practice and research interests of department faculty or community members. Identify opportunities for service learning within psychology.
Identify professional
organizations pertinent to psychology.
Demonstrate how research and practice are interdependent within psychology.
PSY 205. Psychology of Adjustment (5). The nature of the adaptive process and the means by which people adjust to their environment. Course will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior (W).
Upon successful completion of this course, the student will be able to:
Compare and contrast adjustment and personal growth which include major psychological theories used to explain personality development, psychological adjustment, and learning. Examine and discuss the concept of the self and how the social world contributes to selfesteem, self-concept, and selfidentity and deciding on a career that leads to satisfaction and fulfillment along with identifying the current issues associated with the workplace.

Identify and explain the difference between physical and psychological factors associated with health, including physical and psychological reactions to stress related to the immune system and cognitive processes, eating and living habits that contribute to a healthy life including nutrition, substance abuse, and sleep hygiene.
Examine and discuss prejudice and bias and its development along with the effects of social influence and the factors associated with persuasion, obedience, and conformity and how it contributes to behaviors within society.
Analyze and evaluate the building and maintaining of relationships including interpersonal, intimate, sexual, and romantic relationships, and friendships, and the importance of effective communication to overcome the challenges related to relationships as well as maintaining healthy relationships.
Identify and describe the types of mental disorders along with the overall development, prevalence, biological factors, and criteria used to diagnose a mental disorder and evaluate the types of therapy associated with psychological disorders and well-being and the effectiveness of each therapy. Identify, explain and apply some empirical research methodologies including the scientific method and the major features of research methods used to study psychology.
PSY 235. Relationships and Personal Development (3).
Development of interpersonal relationships from initial encounters to stable commitments. Major focus on interaction patterns in intimate relationships. PSY 235 and FSCF 235 are cross-listed courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:

Understand aspects of interpersonal relationships, with some ideas about how to find and to be a life-partner and how to achieve growth and actualization as partners Identify and describe basic concepts and research findings related to self-knowledge and self-esteem, gender roles in society and child-rearing patterns of childhood retained in adulthood and intimate relationships, solitude: knowing yourself, and solitude v. loneliness Identify and describe basic concepts and research findings related to the nature of intimacy, actualization v. neediness in relationships, dangers of intimacy, dysfunctional relationships, finding and promoting healthy intimacy, threats to healthy intimacy, the nature of desire, regulating desire, dysfunctional forms of desire, cultural myths and misunderstandings Reflect upon and express elements of one's understanding and experiences with relationships, solitude, and knowledge of self
PSY 242. Psychology of Video Games (4). This course outlines many foundational theories of psychology within the lens of video games. Students will examine psychological concepts present in video games and how knowledge of psychology can improve the gaming experience. Course will be offered every year (Fall, Spring)
Upon successful completion of this course, the student will be able to:
Examine and evaluate the way video games (and gaming broadly) influence how humans feel, think, and behave Apply critical thinking to analyze the role of community, gender, \& culture in games Demonstrate how psychological research has contributed to developments in games

Recognize the social, political, and ethical implications of advancements in games Formulate questions that can be addressed through scientific solutions Utilize quantitative reasoning and critical thinking skills to understand information sources and address the credibility of such sources
PSY 275. Community Development in Residence Halls (3). Components of successful student development in residential settings. Educational philosophy of residence halls, community development, and problem solving. Credits do not apply toward psychology degree major or minor. Grade will either be $S$ or $U$. Prerequisite: permission of instructor. Upon successful completion of this course, the student will be able to:
Understand the theories and skills necessary to become a successful Resident Assistant (RA) and student leader. Describe and discuss the major student developmental theories.
Understand the importance of community and how to create
one.
Develop and practice communication and confrontation techniques. Understand the importance of programming and how to facilitate a program in their current residence hall. Describe and discuss diversity and multicultural topics. Describe and discuss social issues facing college students today.

## PSY 295. Laboratory

Experience in Psychology (15). Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45 -credit psychology major and not more than 10 credits, combined, may be applied to a 60 -credit major. May be repeated up to 10 credits. Grade will either be S or U .

PSY 298. Special Topics (16).

PSY 299. Seminar in Psychology (3).
PSY 300. Research Methods
in Psychology (5). Addresses
basic experimental and nonexperimental research designs and strategies, as well as the APA-approved professional writing style. Includes both lecture and laboratory experiences. PSY 362 is a recommended co-requisite. Upon successful completion of this course, the student will be able to:
Summarize the steps of the psychological research process
Compare scientific and nonscientific approaches to knowledge
Describe the process of constructing and testing psychological theory as well as the characteristics of a good theory
Describe the characteristics, advantages, and limitations of research methods used in psychological research including correlational and quasi-experimental designs Identify one or more advantages of a complex experimental design Construct a "researchable" question that pertains to your interests Develop a research question into a specific hypothesis that relates two or more operationally defined variables Describe research designs appropriate to a behavioral research question Identify potential threats to internal and external validity in reported behavioral research Use computer databases to generate a list of relevant sources on a topic Identify and address relevant ethical issues in the treatment of human and animal participants in a specific proposed behavioral research project
Write professionally using
APA style
PSY 301. Learning (5). Addresses basic theory and
research related to classical and operant conditioning, stimulus control, and memory. Prerequisite: PSY 300. Upon successful completion of this course, the student will be able to:
Discuss the historical development of the theoretical orientations to the study of learning.
Demonstrate mastery of critical terms and concepts from the field of learning and behavioral psychology.
Develop the ability to communicate in the language and format of the disciplines of learning and behavioral psychology.
Develop the ability to read, comprehend and discuss technically sophisticated experimental procedures, data analysis methods, theoretical arguments and interpretations specific to behavioral psychology. Demonstrate the ability to critically evaluate research designs, data collection methods and interpretations common to the field of learning and behavioral psychology.
Describe the basic behavioral principles of reinforcement, stimulus control, extinction, punishment, and classical conditioning.
Identify procedures, methods and techniques developed within the field of learning that have been employed by other disciplines.
Discuss the relevance of the theories and findings from the field of learning from an interdisciplinary perspective. Recognize the continuity of species and the relevance of animal models of behavior.

## PSY 303. Analysis of

 Everyday Behavior (4). Environmental, cognitive, and biological influences on behavior in daily life. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:Name and describe behavioral tactics for changing behavior (reinforcement, stimulus control, aversive control and its limitations).
Develop and implement a
behavioral self- management program.
Evaluate the effectiveness of your behavior change
strategies.

## PSY 310. Multicultural

 Psychology and Social Justice(4). An examination of human
behavior in cultural context
emphasizing the role of culture
on thought, behavior,
relationships and society.
Addresses the influences of
identity differences on individuals and society.
Examines cross-cultural
theory, and methodology.
Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Explain the ways that psychology has perpetuated social injustice.
Summarize how privilege, power, and oppression may
affect experiences of, and
beliefs about prejudice, discrimination, and inequality.
Critically examine personal
beliefs, experiences and assumptions about culture, cultural difference, and social justice.
Articulate how they will become informed citizens through critical analysis of social and cultural influences on the field of psychology. Explain how social, psychological, and culturally diverse experiences enhance both individual life experience and improve the community Analyze how the relationships between local, regional, national, and global cultures impact individuals' experiences of community, citizenship, politics and mental health/wellbeing. Critically examine how historical, social, economic, and cultural developments
have affected communities, citizenship, politics and government

## PSY 312. Queer Theory and

Sexuality (4). This
interdisciplinary course introduces students to the academic field of lesbian and gay studies through examination of the history, politics, theories, culture, and community of those who identify as lesbian, bisexual, gay, transgender, and queer. Upon successful completion of this course, the student will be able to:
Trace the history of gay, lesbian, and bisexual culture and articulate their understanding of that history in both written work and class discussion.
Demonstrate knowledge of the major concepts within queer theory by using some of these concepts to analyze patterns of behavior, outlook, and identity in gay, lesbian, and bisexual communities.
Examine how queer self-
expression contests and challenges homophobic oppression and heterosexual norms.
Analyze the psychological and social tensions that arise from transgressing gender norms.

## PSY 313. Developmental

Psychology (4). Cognitive, social-emotional, and physical development through the lifespan. Prerequisite: PSY 101 or by permission.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the basic theories of lifespan development.
Demonstrate understanding of the diverse influences on
lifespan development, including hereditary, environmental, normative, and non-normative influences. Demonstrate understanding of the physical, cognitive, language, and social/emotional development of individuals throughout the lifespan.

Demonstrate the use of research skills, including the University library and/or the Internet.
Demonstrate appropriate writing skills, including the correct format for APA references.

## PSY 314. Human

Development and the
Learner (4). Human
development from conception through adolescence. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of physical, cognitive, language, moral, and social-emotional development of individuals from conception through adolescence.
Apply the key components of prominent developmental theories.
Identify the effects of diverse influences on individual development including the impact of a variety of cultural backgrounds.
Describe the effects of diverse influences on development, including hereditary, environmental, normative, and non-normative influences. Demonstrate the use of research and writing skills, including the University library and/or the internet as well as using APA style.
PSY 315. Psychology in the
Schools (4). Psychology
applied in school settings
including principles of learning, instruction, and behavior management. Upon successful completion of this course, the student will be able to:
Describe major theories of psychology (behavioral, cognitive, sociocultural, etc.) and how those apply to student learning and behavior in school settings.
Demonstrate knowledge of diversity and human
development and how these impact student learning and the
learning environment in school settings.
Describe psychology's role in the schools in relation to other disciplines or interdisciplinary fields of study, particularly education.
Demonstrate knowledge of contemporary educational settings and contemporary issues in educational psychology and to consider those issues from various viewpoints (e.g. teacher, student, parent, and administrator).
Demonstrate knowledge of research methods used in school settings, research skills and the ability to apply
research to classroom settings.
PSY 333. Social Justice: The Psychology of Stereotyping, Prejudice, and
Discrimination (4). Study phenomena and processes associated with one's beliefs about members of social groups (stereotypes), evaluations of group members (prejudice), and behaviors toward others based on their group membership
(discrimination) from a psychological perspective. Course will be offered every year (Fall, Spring).
Upon successful completion of this course, the student will be able to:
Articulate how approaching the issues of stereotyping, prejudice, and minority experience from a psychological perspective improves our understanding of human behavior.
Analyze how theory helps to frame issues associated with stereotypes, prejudice, and minority experience and how research that examines these issues speak to basic psychological theory. Identify and analyze the techniques and findings of psychology relating to stereotyping and prejudice to facilitate the application of psychological research and theory to the solution of realworld problems

Evaluate the influence of group-relevant psychological processes on human behavior in the real world.
Apply findings and theories to "make sense" of why people do the things they do, and further appreciate the importance of social groups in society. Cultivate theabilities to think critically, to formulate arguments, and to express reasoned ideas
PSY 340. Teaching of Psychology (3). May be repeated up to 6 credits. Grade will either be S or U . Prerequisites: completion of course in which teaching or assisting is to be done and approval of department chair. Upon successful completion of this course, the student will be able to:
Read and acquire fluent knowledge of basic concepts and skills of the course for which you are assisting the professor.
Execute basic tasks of academic instruction, such as finding source material, evaluating exams and papers, leading discussion groups, explaining concepts to students.
PSY 346. Social Psychology
(4). Social influences on individual behavior.
Upon successful completion of this course, the student will be able to:
Identify and describe common research tactics in social psychology, their strengths and weaknesses
Identify and describe basic concepts and findings about interpersonal perception, including self-perception, other perception, and stereotypes and prejudice
Identify and describe basic concepts and findings about interpersonal influence, including persuasion, conformity, compliance, obedience, and the effects of group membership Identify and describe basic concepts and findings about social relations, including
friendship and intimacy, helping behavior, and aggression Identify and describe basic concepts and findings about applied social psychology, including applications to legal practices, business and industry, and health psychology
PSY 350. Sleep and
Dreaming (4). Research and theory concerning the functions and dysfunctions of sleep and dreaming. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:
Identify methodological issues in the study of sleep and dreaming, including potential problems and biases in these methods.
Demonstrate knowledge of the measurement of sleep and dreaming including polysomnography and techniques for recording and understanding dreams. Describe and identify disorders of sleep and dreaming, including sleep apnea, limb movement in sleep, narcolepsy, insomnias, and parasomnias.
Discuss and identify behavioral, cognitive and pharmacological interventions for sleep disorders. Demonstrate knowledge of circadian rhythms and the biology underlying sleep and dreaming.

## PSY 352. Application of

 Adult Development Theories (2). This course is designed to provide students with a broad understanding and application of theories on adult development and aging.Service-learning is integral and students will be involved with older adults though cooperating local agencies. May be repeated up to 4 credits.
Upon successful completion of this course, the student will be able to:
Apply theories of adult development in interactions with older adults.

Apply concepts and theories of Personal meaning and purpose. Demonstrate sensitivity to multicultural perspectives and theories.
Demonstrate adequate legal/ethical/safety considerations.

## PSY 362. Introductory

Statistics (5). Descriptive statistics and introduction to inferential statistics through one-way analysis of variance. Prior coursework in finite math is recommended.
Upon successful completion of this course, the student will be able to:
Demonstrate proficiency at using basic algebra to calculate descriptive statistics, such as means and standard deviations, and use formulas provided to calculate inferential statistical tests
Calculate simple and compound probabilities, and use sampling distributions to assign probabilities to sample data
Use the steps of null hypothesis testing to determine whether differences in sample data are best interpreted to be due to chance, or to systematic effects
Understand the relationship between the variability in sample data and the decisions of null hypothesis testing Correctly choose inferential and descriptive statistics that are appropriate to different types of data

## PSY 363. Intermediate

Statistics and Research
Methods (5). Experience with the design, execution, analysis, interpretation, and communication of psychological experiments in addition to data management and statistical software skills.
Four hours lecture and two
hours lab each week.
Prerequisite: PSY 300 and PSY 362.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the theoretical basis of
parametric statistics and when it is appropriate to use them Demonstrate understanding of the relationship between random sampling distributions and statistical decision making Demonstrate understanding the concepts of multivariate statistics including multiple regression and MANOVA Choose and calculate an appropriate ANOVA for commonly used experimental designs in the social sciences, including between-, withinand mixed factorial ANOVAs Calculate and interpret simple main effects for an interaction Read and accurately summarize the general scientific literature on a testable research hypothesis in psychology
Select and apply appropriate methods to maximize internal and external validity, reduce the plausibility of alternative explanations, and plan for an appropriate statistical analysis Collect, analyze, interpret, and report data using appropriate statistical strategies in APA style, including graphic representations of data Use appropriate software to produce understandable statistical and qualitative analyses
Follow the APA Code of Ethics in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of psychological research Exhibit the ability to collaborate effectively
PSY 396. Individual Study (1-6).
PSY 397. Honors (1-12).
Prerequisite: admission to department honors program. PSY 398. Special Topics (16).

PSY 399. Seminar (1-5). May be repeated if subject is different.
PSY 401. Psychology of Sport (4). Current theory and research on sports psychology; application of psychological
interventions in sports and fitness. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:
Identify and describe introductory terms and concepts in sport psychology, including the history of sports, basic principles of scientific psychology, and the history of sport psychology. Identify and describe various psychological factors in sport, including psychobiological factors, motivation, attention and memory, mood, and arousal and stress.
Identify and describe common applications of sport psychology interventions, including relaxation, "psyching-up," and imagery. Identify and describe the influence of social factors on sport performance, including aggression and violence, crowd effects, and team cohesiveness.
PSY 413. Conservation Psychology (4). Interaction between thought processes, behavior, and environmental decision-making as they relate to environmental change and sustainability. PSY 413 and PSY 513 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of basic facts, principles, and applications related to understanding the reciprocal influence of humans and their environments
Identify and review both scholarly and popular literature related to the origins of environmental problems and identify behavioral components of these problems
Compare attitudes and behaviors with those necessary for sustaining the global ecosystem and identify strategies for changing behavior where necessary to maintain the sustainability of the ecosystem

Show a deep knowledge of at least two aspects of sustainability

## PSY 415. Behavioral

 Medicine and HealthPsychology (4). The application of psychology to the understanding of illness and to its prevention and treatment with special emphasis on current health topics (e.g., stress, HIV/AIDS). PSY 415 and PSY 515 are layered courses; students may not receive credit for both. Formerly, PSY 455; students may not receive credit for both. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:
Identify major psychological, social, and cultural influences on the development of healthrelated behaviors and attitudes Describe major psychological theories concerning healthpromoting behavior Describe major psychological approaches to modifying health-related attitudes and behaviors
Identify common obstacles to, and facilitators, of treatment adherence
Describe the application of two or more psychological theories to the development of education, prevention, and intervention programs addressing current health topics (e.g., addictions, stress, eating disorders, HIV/AIDS) Identify procedures for evaluating behavioral medicine interventions and health promotion programs Demonstrate the ability to reflect upon the application of psychological theory and research to their own health behaviors and attitudes Design a prevention or intervention program targeted at increasing health-promoting behaviors or decreasing healthcompromising behaviors Articulate the roles and contributions of behavioral specialists (e.g., mental health counselors, psychologists) in the primary health care setting

PSY 420. Psychology of
Language (4). Basic principles
of language, cognition of language, language development, theories of linguistic structure and brain function as it relates to language processing. PSY 420 and PSY 520 are layered courses; students may not receive credit for both Formerly PSY 373, students may not receive credit for both. Formerly PSY 473, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Define language and distinguish a language from a means of communication. Discuss language relevant phenomena like humor, taboo language \& non-verbal communication Discuss positions on the relationship between language and thought. Describe theoretical issues involved in understanding and remembering discourse Distinguish kinds of memory and some aspects of their use in language processing Define and discuss basic issues in speech perception and auditory recognition of words Discuss issues of visual recognition of words and describe theoretical issues involved in sentence processing Describe the principal issues surrounding language acquisition, and how language acquisition is affected by various cognitive or sensory deficits
Discuss some major findings on the relationship between the brain and language Define and discuss various research methodologies used in the psychology of language

## PSY 421. Human

Neuroanatomy (4). An introduction to the anatomical organization and basic functional/clinical principles of the major systems of the human brain and their relations to disease and behavior. PSY

421 and PSY 521 are equivalent courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Describe the historical development of neuroscience as a cross-disciplinary science. Describe and analyze the contributions of anatomical, physiological, behavioral, pharmacological, developmental, and cell and molecular biological studies to the bases of neuroscience. Integrate pathological findings from psychology, psychiatry, physiology, and clinical neurology with basic scientific work in the neurosciences. Identify and explain why research questions rather than methods ideally drive advances in neuroscience. Identify appropriate applications of neuroscientific knowledge in health, service, education, or business professions.
Use critical thinking to analyze and critique the literature and compare textbook, popular and peer-reviewed scholarly reports in the neurosciences.
Demonstrate appropriate use anatomical terminology and locate and identify major brain structures on brain atlas plates, MRI, CAT, and PET scans. Describe neural mechanisms of motor control, sensory processing, homeostatic maintenance, neuromodulation and higher cognitive functions (e.g. learning, memory and emotions).

## PSY 430. Positive Psychology

(4). Examination of the theoretical and empirical literature in the field of positive psychology with attention to topics such as happiness, mindfulness, optimism, gratitude, and forgiveness. PSY 430 and PSY 530 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:

Justify the legitimacy of positive psychology as an important area of study Demonstrate knowledge of major theories and empirical findings in the field of positive psychology
Summarize methodological challenges associated with areas of research in positive psychology Demonstrate the ability to apply important information about one or more specific topics in positive psychology to the student's personal or professional experiences
PSY 438. Substance Abuse and Dependence (5).
Overview of substance abuse from psychological and systems perspectives. Models of addiction and problematic use are explored. Issues including dual diagnosis, family system and cultural considerations, and theories of intervention and treatment are discussed. PSY 438 and PSY
538 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the incidence and prevalence of substance abuse and dependency among diverse groups in the United States. Differentiate between substance use, abuse, and dependence. Identify behavioral symptoms associated with the use of stimulants, sedatives, hypnotics, inhalants, narcotics, hallucinogens, steroids, and psychotropic medicines. Identify family, sociological, and cultural factors associated with substance abuse and dependence.
Identify various health-related consequences associated with substance abuse and dependence.
Describe the potential strengths and limitations of different approaches to defining and assessing substance abuse and dependence.

Explain major theories about the etiology of substance abuse and dependence.
List and describe hypothesized effects of the chemically dependent family system on the behavior and emotional experience of individual family members.
Describe major concepts in the family systems view of substance abuse and dependence.
Compare and contrast current models of intervention and treatment for substance abuse and dependence.
Identify common therapeutic techniques used in substance abuse treatment.
Describe the advantages and disadvantages of providing substance abuse treatment within the context of the family system.
Explain the concept of relapse prevention and describe current models of relapse prevention. Describe criteria for evaluating the efficacy of interventions for substance abuse and dependence.
Identify their own preconceived ideas or biases as well as current beliefs about the assessment and treatment of substance dependence.
PSY 441. Self-Injurious
Behavior (Put on reserve
9/16/17) . A course covering
the occurrence, prevalence, etiology, and treatment of selfinjurious behavior in human and nonhuman primates, including human developmental disorders. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.)
Prerequisites: any biology or psychology course and junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the defining features of established categories of self-injurious behavior.
Demonstrate knowledge of the disorders in which self-
injurious behavior is
commonly found, and the
circumstances under which self-injurious behavior is commonly elicited. Demonstrate ability to critically evaluate the literature pertaining to causal factors in self-injurious behavior. Demonstrate the ability to critically evaluate the literature pertaining to the effectiveness of various types of treatment of self-injurious behavior.
PSY 442. Evolutionary
Psychology (4). Application of principles of evolution to understanding of human and non-human behavior and cognition. PSY 442 and PSY 542 are layered courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the principles of evolution by natural selection.
Apply the principles of evolution by natural selection to the traditional psychological topics of human and nonhuman behavior and cognition.
Think critically about evolutionary theory and the evolution of behavior and the mind.

## PSY 444. Tests and

Measurements (4).
Psychological and educational tests, theory, and practice. PSY 444 and PSY 544 are layered courses; students may not receive credit for both. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of historical perspectives concerning the nature and meaning of assessment and testing in counseling Describe methods of effectively preparing for and conducing initial assessment meetings
Explain the use of assessment for diagnostic and intervention planning purposes Distinguish between basic concepts of standardized and
non-standardized testing, norm-referenced and criterion-
referenced assessments, and
group and individual
assessments
Demonstrate knowledge of statistical concepts, including scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations
Summarize the concepts of reliability and validity in the use of assessments
Evaluate the use of assessments relevant to academic/educational, career, personal, and social development Identify environmental assessments and systematic behavioral observations Assess the use of symptom checklists, and personality and psychological testing Analyze the use of assessment results to diagnose developmental, behavioral, and mental disorders Select ethical and culturally relevant strategies for selecting, administering, and interpreting assessment and test results
Choose psychological tests and assessments specific to clinical mental health counseling

## PSY 445. Clinical,

 Counseling, and CommunityPsychology (5). History, current trends, fields of employment, professional ethics, methods of psychological diagnosis, and treatment. Prerequisite: PSY 101.

Upon successful completion of this course, the student will be able to:
Describe the historical
development and foci of
clinical, counseling, and
community psychology.
Describe the role and techniques of assessment, interviewing, and treatment in each field.
Describe basic skills and approaches to intervention with various populations.

Describe and evaluate professional, ethical and legal issues related to each profession.
Identify the contributions of theory and empirical research for each profession. Identify and understand the implications of strengths and weaknesses in behavioral and social science research.

## PSY 447. Psychology of

 Adolescence (4).Physiological, cognitive, and social aspects of maturation; problems of vocational choice and of increasing autonomy. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:
Understand adolescent development, relationships, and culture in a social/ethnic context along with the revolutionary changes in society and how they affect the lives of adolescents. Understand and articulate the sexual, physical, intellectual and body image changes that adolescents undergo. Understand and critically discuss the changes that adolescent's undergo concerning self-concept, identity, ethnicity, and gender. Understand and critically evaluate the social development of adolescents including adolescent society, culture, relationships, morality, values, beliefs, and behavior. Articulate and evaluate the changing world of adolescents and their families.
Recognize and evaluate the educational and vocational developments and choices that are available to adolescents today.
Evaluate and articulate the psychosocial problems of adolescents including alienation, substance abuse, addiction, and dependency. Develop an appreciation for the varied and extensive sources of information/research that encompass topics that adolescent psychologists explore.

Understand and assess the various techniques and tools that are available to adolescent psychologists within each the venues that they may be working.
Learn about and critically evaluate the development of moral judgment character, values, beliefs, and behavior of adolescents.

## PSY 448. Sexual Behavior

(4). The scientific study of the learned and innate bases of sexual behavior in humans and lower animals. Prerequisite: PSY 101.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding
of the principles natural and sexual selection, and how these relate to sexual behavior Demonstrate an understanding of the genetic and hormonal influences on sexual behavior, and how these interact with cultural factors
Demonstrate an understanding of the methods used by sexuality researchers (for both human and nonhuman subjects), and potential problems and biases in these methods
Demonstrate an understanding of the factors influencing cultural variability in sexual practices and attitudes

## PSY 449. Abnormal

Psychology (4). Symptoms, etiology, and treatment of psychopathology and behavior problems. Prerequisite: PSY 101.

Upon successful completion of this course, the student will be able to:
Understand and describe the historical views of abnormal behavior that influence how mental illness is viewed today Describe the typical research methods and research controversies regarding abnormal behavior Describe the major diagnostic categories of the DSM-IV and distinguish among symptoms, proposed causes, and preferred treatments of each

Summarize the basic psychological theories of abnormal behavior and the treatments that correspond to each theoretical perspective Describe legal and ethical issues related to abnormal psychology
Consider and express one's
own values, experiences, and
history related to theory, research, and practice in abnormal psychology
PSY 450. Sensation and Perception (4). Research, theoretical models of sensory and perceptual processes. Prior coursework in cell function recommended. Prerequisites: PSY 300.
Upon successful completion of this course, the student will be able to:
Describe the classical psychophysical methods and signal detection theory and methods.
Describe the basic anatomy and physiology of the sensory systems, with particular emphasis on vision and hearing; and, to a lesser extent, the chemical senses, olfaction, and gustation.
Describe how objects in the environment are represented in neurological patterns of visualsystem activation, with emphasis on retinal ganglion cells and lateral inhibition, the visual pathway, and the architecture of vision in the cortex.
Describe the variables that are important in color vision, light and dark adaptation, depth perception, the perception of form and movement, and the perceptual constancies. Describe the structure and function of the auditory system.
Describe the variables that are important in the perception of loudness and aural space and speech perception.
PSY 452. Adult Development
and Aging (4). Principles of adult psychological development and the aging process. Examination of adult behavior, life-styles, crises in
adult development, and cognitive, personality, and intellectual changes with aging. Upon successful completion of this course, the student will be able to:
Identify and describe and apply major psychological theories about adult change or development.
Identify, describe, and define the research methodology frequently used by psychologists in the study of adult aging and development. Observe, identify, and describe the physical and health changes that occur in adult aging. Identify and describe the intellectual changes that occur during adulthood.
Assess, identify, and describe the social and work roles in adulthood and the development of relationships.
Summarize the particular issues faced in adulthood such as the search for meaning, stresses, and transitions associated with late adulthood.
PSY 453. Theories of Personality (5). Focus on the scientific study of how and why people differ from each other. Personality psychology addresses questions regarding shared human nature, dimensions of individual differences, and unique patterns of individual behavior. Prerequisite: PSY 101. Upon successful completion of this course, the student will be able to:
Describe the concepts and processes of historically significant theories of personality.
Assess the strengths and weaknesses of each major personality theory.
Describe and define the research methodology frequently used by psychologists in the study of personality.
Identify the contributions of theory and empirical research to our contemporary understanding of personality.

Utilize theory and research in personality in understanding the student's own life.

## PSY 454. The Helping

Interview (3). Theory and
practice of supportive interviewing skills. Upon successful completion of this course, the student will be able to:
Identify some of your personal qualities that may support or hinder attempts at being helpful to others
Describe a framework for conceptualizing the helping interview
Describe key concepts and theory related to helping relationships in a multicultural society
Explain major ethical and legal principles governing professional helping
relationships
Describe methods for organizing well-formed helping interviews Identify skills and strategies for promoting client change Describe factors that influence interviewer's and client's decisions about the structure, purpose, and goals of the helping interview
Demonstrate basic helping skills such as attending, paraphrasing, summarizing, reflection of feelings, challenging, and focusing Describe your personal style and assumptions about the helping process
PSY 456. Industrial and Organizational Psychology
(4). Application of psychological principles to personnel and organizational problems in labor, industry, government, education, and the military.
Upon successful completion of this course, the student will be able to:
Describe what I/0
psychologists do
Apply I/0 research methods to practical problems
Explain how psychological measurements are used in the workplace

Describe how I/0 psychology relates to the human resources function
Explain the importance of facilitation, team building and teamwork in the workplace Describe the various leadership styles and the characteristics of good leadership

## PSY 460. Cognitive

Psychology (5). Methods and theories of human cognition and information processing. Prerequisite: PSY 300.
Upon successful completion of this course, the student will be able to:
Appropriately use terminology. Describe the history.
Appropriately use the methods, theories, and research findings of cognitive psychology.
Concepts and research areas may include: Diversity as it relates to cognitive psychology, Reductionism and how a science of mind is possible, Brain structures related to cognitive processing, The information processing model, including attention, perception, encoding, storage, and retrieval, Parallel distributed processing, Memory constructs, Knowledge representation processes, Language, Biases in thinking, Cognitive assumptions, Perceptual organization, Problem solving, Cognitive development, Sensory analysis, and Learning.
Perform the skills of synthesizing, organizing, and analyzing the literature in a research topic, conducting a research experiment in cognitive psychology, and reporting research in APA style.

## PSY 461. History and

Systems of Psychology (5).
Historical development and persistent theoretical problems of contemporary psychology. Prerequisite: PSY 101.
Upon successful completion of this course, the student will be able to:
Describe major problematic themes of systems of
psychology and describe where a given system stands on these dimensions: conscious mentalism-unconscious mentalism, behaviorismmentalism, determinismindeterminism, empiricismrationalism, functionalismstructuralism, mechanismvitalism, molecularismmolarism, monism-dualism, naturalism-supernaturalism, nomotheticism-idiographicism, and staticism-dynamicism Describe common problems in historiography
Compare at least four views of how science makes progress Describe the major figures and contributions to the history of modem psychology made by: Early Greek philosophy, cosmology and idealism, PostAristotelian worldly philosophy, The Renaissance and the beginnings of modem science and natural philosophy, Empiricists, sensationalists and positivists
Describe the major figures and contributions to the history of modem psychology made by: Rationalists, Romantics and existentialists, Early
Experimental psychologists, Voluntarists, structuralists, other early psychologists, and the Darwinian influence and the testing movement Describe the major figures and contributors to the history of modem psychology made by 20th century developments in Functionalism, Behaviorism, Neobehaviorism, and Gestalt Psychology
Describe the major figures and contributions to the history of modem psychology made by: Pioneers in early diagnosis, explanation, and treatment of mental illness Freud, psychoanalysis and its early alternatives, Humanistic (third force) psychology, Cognitive psychologists, Psycho biologists, and Contemporary professional psychologists Use scholarly resources in the library and internet to write a coherent brief history of a selected event in the history of
psychology in proper APA
style
PSY 465. Psychology and the
Law (4). How the discipline of psychology contributes to our understanding of matters related to the law.
Upon successful completion of this course, the student will be able to:
Understanding the psychologist's approach to the law and the dilemmas reflected in this approach along with understanding the roles that psychologists may play in the legal system.
Understand and articulate how psychologists balance legality versus morality versus justice. Learn about the various ways that psychologists help with the selection and training of police. This includes understanding the personality characteristics of police and their relationship to the community. Understand and evaluate the psychological aspects of witnesses, suspects, and victims.
Develop an understanding of and appreciation for forensic psychological assessment. Learn about the trial process and develop and appreciation for the special concerns involved with jury trials. Understand and assess the psychological components of punishment and sentencing Develop an appreciation for the varied and extensive sources of information/research that encompass topics that psychologists explore. Understand and assess the various techniques and tools that are available to psychologists within each the legal venues that they may be working.
Learn about and critically
evaluate how changing social value impact the tasks of psychologists within the legal arena.
PSY 467. Child
Psychopathology (4).
Identification and treatment of the child with psychological disturbances; the home, school,
community, and cultural context in relation to the child's mental health; relevant resources and research. Course will be offered every year (Fall, Winter, and Summer). Prerequisites: PSY 313 or PSY 314.

Upon successful completion of this course, the student will be able to:
Use terminology, concepts, models, and theories to explain behavior and mental processes in children and adolescents Identify major historical events, theoretical perspectives, and figures in child and adolescent psychology
Identify and describe biological, familial, social, and cultural factors related to the development, diagnosis, outcome and treatment of relevant conditions Examine classification and assessment techniques used in child and adolescent psychopathology
Evaluate empirical literature
regarding taxonomy, etiology
and effective treatments for
childhood disorders
Use the DSM-V to compare and contrast specific disorders found in children and adolescents
Explain how individual and sociocultural differences may influence the diagnostic process and the
applicability/generalizability of research findings Discuss relevant ethical issues in the treatment and study of child and adolescent psychopathology Describe how issues of global concern (e.g., poverty, physical health, migration, rights of children, conflict and violence) impact child and adolescent psychopathology
PSY 472. International Counseling and Psychology (Put on Reserve 9/16/16.) (3).
This course immerses students within a cultural group and examines how psychological and counseling services are provided within that society.

The location for the course varies by year. Students will learn about a society's available services, health care provision, relationship/childrearing traditions, common prejudices, and economic values. PSY 472 and 572 are layered courses. May be repeated up to 6 credits. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive $8 / 24 / 19$.) Prerequisite: PSY 101.
Upon successful completion of this course, the student will be able to:
Describe unique psychological interventions provided by the society studied
Describe unique cultural components of family structure Articulate differences in sociopolitical and economic
structure, as it relates to psychological interventions/research Describe cultural differences between dominant American society and the trends found in the society studied
Review published literature
PSY 476.
Psychopharmacology (4).
Common drugs,
psychotherapeutic agents and hallucinogens. Behavioral effects and physiological mechanisms.
Upon successful completion of this course, the student will be able to:
Define, identify, and explain the basic principles of pharmacokinetics .and pharmacodynamics Define, identify, and explain nervous system organization and function, and chemical signaling
Define, identify, and explain the methods used to study drug action
Define, identify, and explain the organization and function of the major neurotransmitter systems
Define, identify, and explain the mechanisms of drug dependence and addiction Define, identify, and explain how the foregoing concepts
and principles apply to a selected set of psychoactive drugs

## PSY 478. Behavioral

Neuroscience (4). Problems, methods, and techniques of neurophysiology and the physiology of human and infrahuman behavior patterns.
Prior coursework in cell function recommended. Prerequisites: PSY 300.
Upon successful completion of this course, the student will be able to:
Describe different theories that relate the brain to human behavior.
Cite the contributions of historical figures or casestudies.
Explain the evolutionary history of the human brain. Identify basic structural features of the brain and describe the function of each.
Explain conventional methods for studying the structures and functions of the nervous system.
Describe the structural anatomy of the neuron and function of each feature. Describe the process of synaptic transmission, including the effects of drugs and hormones.
Describe the behavioral effects of the factors affecting synaptic transmission, including developmental phenomena, critical periods, abnormality, learning, and memory. Using the visual system as a model, explain the physiological processes of human sensation and perception.
Explain how a combination of basic structures and functions give rise to human emotion.
PSY 479. Comparative
Psychology (4). Seminar in the study of behavior and cognition across species. This course is listed under the graduate version of PSY 576; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:

Demonstrate knowledge of the historical and theoretical roots of comparative psychology. Demonstrate knowledge of the methods used in comparative psychology.
Demonstrate knowledge of differing perspectives within comparative psychology, and how these influence and are influenced by choice of species.
Demonstrate knowledge of major topic areas with comparative psychology, including their historical roots and theoretical bases. Demonstrate detailed knowledge of a specific area within comparative psychology, including its historical roots and the current state of the field.

## PSY 483. Psychology of

Gender (4). The psychology of gender from a social psychological perspective, which examines implications of gender roles, schemas, and stereotypes. Prerequisite: PSY 101.

Upon successful completion of this course, the student will be able to:
Describe basic concepts and findings in the psychology of gender, including: historical development of the field, including important contributions from the literature on the psychology of women, contemporary issues (e.g., the psychology of men and masculinity), and biological, social, psychological, cultural, and political influences related to gender and gender identity development. Identify context-related gender differences (e.g., education, career, health care, social networks).
Critically deconstruct gender messages in contemporary society.
Distinguish between gender differences and gender stereotypes.
Use research resources to support class-related written assignments.

Discuss theory and research on the psychology of gender.

## PSY 484. Violence and

Aggression (4). Violence and aggression directed toward self, others, and society. Problems of prevention and treatment, related ethical and legal issues. Prerequisite: PSY 101.

Upon successful completion of this course, the student will be able to:
Understand and analyze the lifetime of developmental processes involved in violence and aggression.
Develop an understanding for the multi-disciplinary model that incorporates the biological, psychological, political, social and environmental contributors to violent and aggressive behavior.
Analyze and appreciate how mental illness may or may not be a contributing factor to violence and aggression. Understand and critically evaluate how the justice system, imprisonment, other forms of punishment, and the victims' rights movement affect violent and aggressive behaviors.
Analyze how the justice system, imprisonment, other forms of punishment, and the victims' rights movement affect individual victims and society as a whole.
Learn to articulate the interconnected risk factors for violent and aggressive behavior.
Learn about the successful and unsuccessful violence prevention programs while also integrating the obstacles to prevention into a coherent framework for future prevention programs. Develop an appreciation for the varied and extensive sources of information/research that encompass topics that psychologists explore. Understand and assess the various techniques and tools that are available to psychologists within each the
venues that they may be working.
Learn about and critically evaluate how changing social values impact the tasks of psychologists.
PSY 489. Senior Assessment
(2). An end-of-major course.

Portfolio review, career
planning, and program evaluation activities. Grade will either be S or U . Course
will be offered every year (Fall, Winter, Spring, Summer). Prerequisites: PSY
200 and admitted to a psychology major and senior standing. It is recommended that this class is taken in the last academic quarter. Upon successful completion of this course, the student will be able to:
Demonstrate clear communication strategies and techniques oral, written, or expressive from in preparation for graduate school or career. Apply higher-order critical thinking to evaluate growth as a psychology student. Reflect and integrate, and apply skills and knowledge learned as a psychology major Create a portfolio synthesizing your work as a psychology student.
Demonstrate knowledge of psychological principles Engage with and serve community as scholar-citizens
PSY 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
PSY 491. Workshop (1-6).
PSY 493. Field Research (On reserve as of $9 / 16 / 15)(1-12)$.
Individual or group off-campus experience in the field study of psychological phenomena.
May be repeated for credit. Put
on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18.
Upon successful completion of this course, the student will be able to:
Formulate testable hypotheses about naturalistic behavior. Develop research methods and measurement device to answer a specific hypothesis about naturalistic behavior. Have competence in employing behavioral data collection methods. Organize and analyze behavioral data to produce meaningful answers to a research hypothesis. Draw relevant and accurate conclusions from behavioral data.
PSY 495. Directed Research (1-5). Not more than 5 credits of PSY 295, PSY295C, PSY 495, and PSY495C combined may be applied to a 45 -credit psychology major and not more than 10 credits, combined, may be applied to a 60 -credit major. By permission. May be repeated for credit. Grade will either be S or U. Prerequisite: PSY 101
PSY 496. Individual Study (1-6).
PSY 497. Undergraduate
Honors Thesis (2-6). By
invitation of department chair. Research supervised by threemember committee of the department of psychology.
May be repeated up to 6 credits. Prerequisite: admission to the Departmental Honors Program.
PSY 498. Special Topic (1-5).
PSY 499. Seminar (1-5).
PSY 295C. CHCI Laboratory
Experience (1-5). Laboratory experience at the Chimpanzee and Human Communication Institute. May be repeated for credit. Grade will either be S or
U. Course fee will be assessed. Not more than 5 credits of PSY295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45 -credit psychology major and not more than 10 credits, combined, may be applied to a 60 -credit major. Prerequisite:
permission of department chair. PSY 101 is also a recommended prerequisite.
PSY 495C. CHCI-directed
Research (1-5). Directed research at the Chimpanzee and Human Communication Institute. Course fee will be assessed. Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45-credit psychology major, and not more than 10 hours combined may be applied to a 60 -credit major. May be repeated up to 10 credits. Grade will either be S or U .
PUBH 209. Consumer Health
(4). This course explores issues related to information, products, services, and regulation influencing the health of people as consumers. Emphases are information environment and perspectives of both consumers and health professionals. Formerly HED 209, students may not receive credit for both. Course will be offered every year (Fall, Spring).
Upon successful completion of this course, the student will be able to:
Describe the ways regulation, systems, and resulting product/services options are related to consumer values and decisions;
Find and use credible information about healthrelated services \& products, policy, and/or decision making; Collect and share qualitative and/or descriptive-level quantitative data regarding consumer health Outline key societal decisions, knowledge building, and events shaping contemporary consumer health issues and options;
Analyze constructs of behavioral and other public health-relevant theory with respect to impact on consumer outcomes
PUBH 230. Foundations of
Public Health (3). This is an introductory course for students interested in public
health. The course introduces students to the core foundational concepts for continuing study in the area of public health. This course surveys the history, philosophies, and underlying the practice of public health. This course involves community and campus interaction through service learning. Formerly HED 230, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Recognize, describe, and discuss the history, philosophy, and foundational literature underpinning the field of public health.
Define and provide examples (explain) of the 3 core functions and 10 essential services of public health. Apply their knowledge of foundational public health (described above) to the field and analyze their experiences.
Explain the basic concepts of prevention and interventions and describe prevalent diseases in terms of simple epidemiology. Identify the role of public health in addressing the needs of vulnerable populations and health disparities. Identify the role of public health in environmental, disaster, or emergency situations.
Introduce and recognize issues such as models \& theories, social and behavioral determinants of health, policies, health communications, and other introductory topics that are covered in greater detail in core coursework.
PUBH 240. Writing in Public
Health (3). Fundamental skills and practice for effective written communication in public health and related disciplines; attention to clarity and accuracy; various styles and strategies; appropriate use and citation of peer-reviewed literature; audience concern;
hierarchy of evidence; APA style is a focus. Formerly HED 240, students may not receive credit for both. Prerequisite: ENG 101 and ENG 102.
Upon successful completion of this course, the student will be able to:
Produce a brief piece of writing appropriate for a general public audience, designed to communicate information about an issue and/or prevention strategy. Organize information and their thinking surrounding a public health issue or strategy, with the aim of proposing further research or change in direction. Produce a literature review and a proposal regarding a public health issue or strategy. Identify and obtain credible sources of information related to population health issues and strategies.
Use college-level writing components (grammar, punctuation; spelling);-identify- weak or incorrect writing; and solve their own writing issues through careful proofreading and editing.
PUBH 250. Introduction to
Health Policy and Systems
(3). This introductory course provides an overview of the U.S. health system, and explores the conceptual process of health policy development, the social and political environment in which policy decisions are made and their implications on the health and well-being of populations. Formerly HED 250, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Identify the basic structure of the U.S. health system and its major components Identify the basic lawmaking and policymaking processes in health and related domains Conduct basic policy analyses related to public health policy decisions and interventions Summarize major health policy decisions in U.S. history and
their impact on current population health
Articulate basic policy positions that reflect public health decisions
PUBH 298. Special Topics (1-
6). May be repeated up to 12 credits.
PUBH 299. Seminar (1-5).
May be repeated if subject is different.
PUBH 310. Community
Health (3). An overview of contemporary community health programs; problems in community health at the local, national, and international levels. Formerly HED 310, students may not receive credit for both. Course will be offered every year (Winter, Summer). Upon successful completion of this course, the student will be able to:
Describe various determinants of health at a community level Differentiate among the roles that federal, state and county governments play in the control of community health activities
Identify risk factors and protective factors at play for various community health problems
Describe socio-economic, racial/ethnic, linguistic and other related health disparities Examine the primary differences between noncommunicable and communicable diseases and how these conditions impact the health of a community Appraise possible communitybased interventions designed to address a variety of community health problems
PUBH 311. Cross Cultural Practices for Health and Medicine (4). Course examines beliefs, values, biases, and other culturallydriven variables affecting, and reflecting, societal health status and outcomes. Students will consider issues and strategies, and learn to connect with people and systems, in new ways. Course will be offered every year (Fall, Spring). Upon successful completion of this
course, the student will be able to:
Recognize the breadth and impact of cultures and cultural definitions as related to health status and outcomes. Demonstrate self-awareness about culturally-driven beliefs, values, norms, and biases in personal models of desirable health, medical, and related social outcomes. Identify changeable health and social outcomes impacted by the ways culture has been inadequately considered as part of community health and medical care strategies. Describe the role of beliefs, values, norms, and other cultural nuances as levers to improve health outcomes for individuals and communities. Explain a positive health status or outcome experienced by a group, community, or society as a function of its social, psychological, and/or culturally diverse experiences. Analyze a community's healthrelevant decisions, policies, or status as related to local, national, regional, and/or global cultures.
PUBH 317. Global Health Issues and Solutions (4).
Course examines health and social issues as a function of setting in the global community. Explores differences in experiences, resource bases, strategies, and outcomes. Introduces global policy, major initiatives, and alternative approaches and opportunities. Formerly HED 317, students may not receive credit for both. Course will be offered every year (Fall, Spring).
Upon successful completion of this course, the student will be able to:
Define and use key terms relevant for global health issues analysis and improvement
Discuss disparities of resource base that initiate and maintain health and social Inequities Research and share case- based strategies that support effective
change in global health outcomes
Use concepts, theories, and skills from relevant disciplines for global health improvement Find and use credible sources relevant for understanding and solving global health issues
PUBH 318. The Politics of Food and Health (3).
Exploration of the politics of food from farm to table, and the implications for human and environmental health. PUBH
318 and NUTR 318 are crosslisted courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Analyze changes in U.S. diet over time.
Question food systems, choices, and discourse relative to personal and population health.
Identify influential factors in the food environment relative to power.
Evaluate regulatory influence on food production, manufacturing, and distribution and the potential effects on human and environmental health.
Frame a food system issue, from a population health standpoint, for discussion.
PUBH 320. Environmental
Health (4). Examines
environments, agents, and outcomes related to human and ecosystem health. Explores basic toxicology and environmental epidemiology principles; behavioral, social, economic, and political factors; scientific and technological advances; and sustainability issues and strategies. Course
will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to: Describe scientific/ technological developments, and societal perspectives about
them, with respect to human and ecosystem outcomes. Recognize social, political, economic, and ethical contributors to, and implications of, environmental issues.
Analyze environmental challenges that threaten human and natural environment health.
Calculate environmental epidemiology rates and other statistics.
Describe historical and theoretical/scientific foundations of strategies, specific sub-areas, and epidemiology related to environmental health. Describe and differentiate between sustainability efforts, environmental justice issues and strategies, and governmental public health strategies as related to human and ecosystem outcomes. PUBH 324. Infectious and Non-infectious Disease (4).
This course introduces students to the various principles related to the identification, treatment, and prevention of prevalent infectious and non-infectious diseases. Additionally, the physical, social, psychological, and economic effects of these illnesses/diseases in society are explored. Formerly HED 324, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the disease process for chronic illnesses such as cancer, cardiovascular, cerebrovascular, sensory, nervous, and endocrine disease.
Identify risk factors related to the development of noninfectious diseases. Identify primary, secondary, and tertiary levels of care for non-infectious diseases.
Communicate and advocate for preventive health education in regard non-infectious disease.
Provide information and act as a health education resource.

PUBH 351. Community Building Strategies for Public Health (4). Introduces students to practical strategies designed to engage others in creating change that matters to them. Explores ideas, evidence, examples, and possibilities from the activist to the establishment. Course offers community practice opportunities. Formerly HED 351 and HED 450, students may only receive credit for one. Course will be offered every year (Winter) Prerequisite: PUBH 230. Upon successful completion of this course, the student will be able to:
Describe the ways in which community organizing has been and can potentially be used to improve community outcomes
Discuss challenges faced by practitioners using community building strategies
Share evidence related to advocacy and similar strategies as effective in improving outcomes
Present an outline for community building strategies for making personally meaningful community change Design a plan, and tools for advocacy around a specific issue
Engage with a personally accessible community opportunity for action

## PUBH 370. Contemporary

Issues in Public Health (4).
Contemporary health education topics and issues are explored through classroom and community contacts, visual, web-based, and interactive media. May be repeated for up to 8 credits, provided topic is different. Formerly HED 370, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Distinguish credible
information from unreliable
information pertaining to issue areas.
Research the evidence base surrounding a particular issue area (such as mental health, reproductive health, HIV/AIDS, food justice, or global human rights).
Discuss norms, values, beliefs, and attitudes related to the issue area, as well as the impact of such thinking on current approaches and outcomes.
Synthesize, and share credible information surrounding the issue area, with attention to meeting the needs of various audiences of interest.
Propose feasible strategies to improve population outcomes surrounding the issue area.
PUBH 375. Theories of
Health Behavior (4). Provides an introduction to methods and theories of behavior change related to community and public health. Examines change process of individual and communities including motivating factors essential to maintaining positive behavior change. Formerly HED 375, students may not receive credit for both. Course will be offered every year (Fall, Spring).
Upon successful completion of this course, the student will be able to: Define what theory is and identify key types of social and behavioral science theory that are relevant to public health interventions.
Describe the key constructs of four theories that are often used in public health interventions: the Health Belief Model, The Transtheoretical Model and Stages of Change, Social Cognitive Theory, and the Social Ecological Mo Evaluate the evidence about the relative effectiveness of theory-based interventions. Identify the most important considerations in choosing the right theory to address a health behavior problem in a particular population and context.

PUBH 376. Community Food Strategies: Campus Garden
(2). Project-centered course designed to introduce students to skills and strategies relevant for developing and sustaining campus-based community food strategies to improve health and social outcomes. May be repeated up to 12 credits. Course will be offered every year (Spring, Summer). Upon successful completion of this course, the student will be able to:
Share information about contemporary community food systems issues and strategies designed to solve them. Assess current, and potential, opportunities for feasible campus garden-based food and health promotion strategies. Engage potential partners. Collaborate with a team to contribute to a campus gardenbased community food project Share the story of the project. PUBH 380. Epidemiology (4). Epidemiology is the scientific study of the determinants, rates, and distribution of disease amongst populations. Formerly HED 380, students may not receive credit for both. Course will be offered every year (Winter, Spring).
Upon successful completion of this course, the student will be able to:
Identify the history, philosophy, and uses for epidemiology. Compute rates, distributions, and risk of morbidity and mortality.
Explain the ethical principles of research are important to epidemiological design and public health.
Identify basic epidemiological study designs and apply examples of appropriate use. Assess the use of epidemiological evidence in determining contributory and casual relationships between variables.
Understand the broad application of epidemiology to the field of clinical health,
public health practice, and public policy.
PUBH 396. Individual Study
(1-6). May be repeated if subject is different.
PUBH 397. Honors (1-12).
Prerequisite: admission to department honors program.
PUBH 398. Special Topics (1-
6). May be repeated up to 12 credits.
PUBH 399. Seminar (1-5). May be repeated if subject is different.

## PUBH 409. Community Mental Health Issues and

 Strategies (3). This course provides an overview of the history, trends, and promising models of community-based mental health from a public health perspective. This includes the broad range of determinants of mental health and substance abuse, U.S. delivery system and supports, program and policy interventions, and other mental health promotion efforts from a community-based context. Prerequisite: PUBH 230. Upon successful completion of this course, the student will be able to:Describe a variety of community mental health program delivery models currently being used in the US Examine determinants of mental health as they relate to community-based factors Assess the role things like educational level, income, and access to services play in treating mental illness Examine the contributions of various policies to mental health status of groups Appraise the various treatment options available through a variety of community-based prevention, intervention, and treatment programs Recognize the role mental health plays in various other community-based social health issues such as prisons and substance abuse treatment, and homelessness
PUBH 412. Aging and Public Health (3). Population aging is a major challenge facing public
health. Public health professionals must be prepared to meet the social, economic, and healthcare needs of aging populations.
Upon successful completion of this course, the student will be able to:
Discuss the challenges of aging in society and the public health impacts of population aging. Demonstrate their knowledge of the implications of age related disease and disability on the health of the individual and the healthcare, social, and economic systems of society Analyze policies that impact successful aging and those that prevent healthy aging.
Prepare a position stand on an age related health issue. Evaluate the effectiveness of healthy aging programs.
PUBH 413. Health
Disparities in Rural and Frontier Communities (3). Overview of differences in health statuses, resources, and outcomes in rural and frontier communities in the U.S. from a population health perspective. PUBH 413 and PUBH 513 are layered courses. Students may not receive credit for both. Course will be offered every year (Fall, Spring and Summer Quarters)
Upon successful completion of this course, the student will be able to:
Identify and analyze
differences in health status and outcomes in rural and frontier communities using publicly available data
Identify elements of health systems specific to rural and frontier communities Discuss strategies aimed at improving health disparities in rural and frontier communities Assess a public health program and/or policy using a case study approach
PUBH 420. Women's Health
Issues (4). This course
examines selected women's health issues and their physical, mental, and emotional effects, as well as the political, social, and
cultural climates that influence the health of women. Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Identify key health issues that disproportionately affect women and/or that are unique to women and those who identify as women. Identify and assess community resources that aim to promote the health of women and/or address health disparities related to women's health issues.
Differentiate women's health conditions (infectious and noninfectious) from a treatment and prevention perspective. Critique and discuss components and influences of physical, emotional, mental, and sexual health of women from a gender-perspective. Identify and examine the health status/issues of a vulnerable sub-population and evaluate the historical and contemporary treatment of the sub-population in the health care system.
PUBH 422. Community Health Promotion and
Education (4). Based upon the seven areas of responsibility for entry-level health educators, students will utilize best practices in prevention science to develop methods/materials to educate individuals and groups on topics that they need to remain healthy. Course will be offered every year (Winter and Spring). Prerequisite: PUBH 230.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge about the roles and responsibilities for entry-level health educators Differentiate among and between health educators that function in public health agencies, community settings, schools, and worksites Compare and contrast the knowledge and skills needed in
the practice of health education in various settings Review the history of health education within the context of the role delineation project Design and evaluate health education materials based on best practices within prevention science Apply knowledge of levels of prevention in the development of materials for varied groups of people as well as the individual
PUBH 424. Maternal and
Child Health (3). A survey of public health issues affecting women, children, and families from a population health perspective. Prerequisite: PUBH 230.
Upon successful completion of this course, the student will be able to:
Identify the broad range of individual, environmental, biological, and social determinants of health of women, children, and families
Discuss methods and data sources used for assessing maternal and child health from a population health perspective Develop strategies and interventions to improve the health needs of women, children, and families Identify and evaluate the implications of policies that affect maternal and child health at the local, state, federal, and international level
PUBH 440. Public Health
Communication (3). Basic theory and practice of public health communications to inform and influence individual and community decisions that enhance health. Course will be offered every year (Fall and Summer). Prerequisite: PUBH 230. Upon successful completion of this course, the student will be able to:
Identify and differentiate between public health communication theories and strategies
Utilize market research techniques to design health communication materials

Critique existing public health communication materials (e.g. public service announcements, websites, multi-media, social marketing, etc).
Describe the role of health
literacy and numeracy in communicating health promotion concepts with the public
Describe the advantages and disadvantages of different types of media in public health communications Design and plan a comprehensive public health communication campaign related to a specific health problem or challenge PUBH 445. Professionalism in Public Health (1).
Professional ethics, job readiness, and job search in public health. To be taken last two quarters before internship placement. Formerly HED 445, students may not receive credit for both. Prerequisites: PUBH 230, and PUBH 240, and PUBH 375 and acceptance into the public health major. Upon successful completion of this course, the student will be able to:
Review principles of professionalism and professional ethics in public health careers
Prepare a professional resume and accompanying materials for a public health job search Identify methods of career/professional development (e.g. volunteerism, community involvement/experience, professional organization membership, job shadowing, interning, mentoring, etc) Prepare and deliver a mock job interview and offer peer-topeer feedback on interviewing
PUBH 448. Sexual Health (4).
This course surveys sexual health from a public health perspective, focusing on both individual and societal factors contributing to sexual health. Course will be offered every year (Fall and Spring).

Upon successful completion of this course, the student will be able to:
Identify anatomical and physiological aspects of human sexual functions. Identify male and female specific sexual function and sexual variation. Comprehend the risk factors, prevention, and treatments for various sexually related diseases and dysfunctions. Analyze the affect of sexual health education on health outcomes across various states, countries, and cultures. Synthesize information about how sexual beliefs, values, and behaviors can influence sexuality and health over the life span. Students will discuss the findings of these reports. Evaluate the impact of policies affecting sexual health in the US.
PUBH 460. Public Health
Ethics (3). Overview of key ethical frameworks and their application to ethical issues in public health practice.
Formerly HED 460, students may not receive credit for both. Prerequisites: PUBH 230 and PUBH 240 and acceptance into public health major and senior standing.
Upon successful completion of this course, the student will be able to:
Identify the role of personal values, morals, and biases in ethical decision-making Describe the process for ethical decision making in public health
Review major ethical events in
U.S. public health history

Analyze the ethical implications of communitybased practice and research Discuss strategies and models for the ethical distribution of constrained resources for health
PUBH 465. Undergraduate
Research Preparation for
Public Health (2). This course is intended to help undergraduate students pursue research projects related to population health. The course
will help prepare the learner to complete a variety of necessary steps to design, implement, and disseminate possible short-term research projects under the mentorship and guidance of faculty member(s) and with the assistance of rigorous review from peers. It is expected that students will emerge from this course with at least one scholarly product that could be presented at SOURCE or other relevant academic venues. By permission. Prerequisites: major; PUBH 230, PUBH 240. Upon successful completion of this course, the student will be able to:
Identify and evaluate various study designs and methods for public health research Develop a research abstract in public and population health Identify the appropriate mechanisms and ethical protocols for the protection of human subjects in public health research
Implement a proposed research project related to public and population health, such as a systematic literature review, quantitative or qualitative analysis of data, case study, or other relevant study designs Propose a plan for dissemination of their intended research project, such as a research poster or presentation at SOURCE, professional associations, conferences, peerreview or other academic journals, public forums, or other appropriate venues Participate in the peer review process of proposed research studies in public and population health
PUBH 470. Population
Health Assessment and
Research (5). Theory and practice of assessing the health status, potential, and determinants of communities and populations. Formerly HED 330 and HED 470, students may only receive credit for one. Course will be offered every year (Fall). Prerequisites: PUBH 230, and PUBH 240.

Upon successful completion of this course, the student will be able to:
Demonstrate the ability to use the language, concepts, and literature related to population health assessment. Demonstrate the ability to design and conduct an assessment project with the potential to add to the public health evidence base. Demonstrate the ability to conduct practical data analyses that aid in interpreting data and sharing findings. Demonstrate the ability to share findings with an appropriate audience. Provide examples of quantitative and qualitative methods suitable for assessing the health status, determinants, and potential of groups.

## PUBH 471. Program

Planning (4). Health program planning including needs assessment and goal setting. PUBH 471 and PUBH 571 are layered courses; a student may not receive credit for both. Formerly HED 471, students may not receive credit for both. Prerequisites: PUBH 470 and acceptance into public health major.
Upon successful completion of this course, the student will be able to:
Use the language and concepts of program planning, including behavioral and other theory and planning models, relevant for public health improvement. Use literature and other data to produce a rationale for a public health-relevant program or other intervention.
Write mission, vision, values, and goal statements, as well as measurable objectives surrounding population health improvement and their program's success. Prepare a feasible plan for program implementation, including planned evaluation strategies.
Present their plan formally to an audience of peers, professionals, and campus and community stakeholders.

PUBH 472. Program Implementation and Evaluation (4).
Implementation and evaluation of programs and other strategies designed to improve population health outcomes. Formerly HED 472, students may not receive credit for both. PUBH472 and PUBH572 are layered courses and cannot be taken for duplicate credit. Course will be offered every year (Spring). Prerequisites: PUBH 471 and acceptance into public health major.
Upon successful completion of this course, the student will be able to:
Describe the relationship between an effective plan and implementation of a public health intervention.
Translate an existing plan into action using a linear process involving strategizing with peers and instructor, and taking steps toward their goal.
Work with colleagues to produce a completed campusor community-based intervention from an existing plan.
Conduct an evaluation of a public health intervention. Describe challenges faced, and resources useful in overcoming them.
Effectively describe the implemented intervention, and communicate evaluation results, to an audience of peers, professionals, and campus and community stakeholders.

## PUBH 475. Community

 Health Administration (3).Understanding and application of knowledge to various administrative tasks in community health. Grants, management, and personnel issues will be covered. Formerly HED 475, students may not receive credit for both. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Describe qualities of successful public health administrators.

Describe the importance of standards and essential skills in relation to effective management of public health programs.
Realize the role of public health leadership in community/population-based health.
Demonstrate skills of effective management in collaborative relationships.
Use skills needed to write a successful grant application. Compare and contrast different funding sources.
Develop a grant application for a health-related topic.
PUBH 479. Senior Seminar
in Public Health (1). This
course is intended to provide
students an opportunity to
reflect on and synthesize coursework, academic background, and related professional development components in a topic-based and discussion-focused format. Prerequisites: senior standing, public health major, most
PUBH required courses complete or permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify and analyze
disciplinary areas of particular interest to them as developing professionals.
Discuss current and audiencerelevant resources surrounding a public health issue or strategy area.
Identify areas of personal professional readiness, strengths, challenges, and desires for additional education and professional training. List and discuss tasks related to pursuing further education, professional training, or positions in the field.

## PUBH 480. Grant Seeking

 and Administration in PublicHealth (3). This course introduces students to grant seeking, writing, and administration in the broad field of public health. PUBH 480 and PUBH 580 are layered courses; students may not
receive credit for both. Course will be offered every year (Fall). Prerequisite: PUBH 230 or PUBH 240.
Upon successful completion of this course, the student will be able to:
Demonstrate their knowledge of common public health funding sources.
Propose a program or project idea for which they will seek funding.
Evaluate grant proposal
samples targeting health related projects.
Calculate and justify a budget
for a health related grant
proposal.
Create a public health grant proposal.
PUBH 490. Cooperative
Education (1-12). An
individualized, contracted field
experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated up to 12 credits. Grade will either be $S$ or $U$. Prerequisite: prior approval required.
PUBH 496. Individual Study (1-6). May be repeated if subject is different.
PUBH 497. Honors (1-12).
Prerequisite: admission to
department honors program.
PUBH 498. Special Topics (16). May be repeated if subject is different.
PUBH 499. Seminar (1-5).
May be repeated if subject is different.
RELS 101. World Religions
(5). Survey of the major world religions (Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, Daoism), including their tenets, practices, and evaluation of the human condition. AH-
Philosophies and Culture World (W).
Upon successful completion of this course, the student will be able to:
Describe of the development of the major world religions
within their contexts of origin and subsequent spread to other geographic regions.
Articulate the primary tenets, practices and symbolic systems of the major world religions. Describe the historical role of religion in shaping cultures and institutions.
Articulate how religion functions in their personal, social and historical lives and the lives of others.
Recognize the diversity of manifestations of religious expressions.
Develop analytical, reading
and writing skills.
RELS 102. Food, Sex, and the Other: Everyday Religion and Morality (5). An examination of religion in everyday life and the contemporary moral issues both affecting and being addressed by world religious traditions. Course will not have an established scheduling pattern (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Identify how different world religious traditions address contemporary moral issues and controversies in everyday culture.
Demonstrate an understanding, in writing and in class discussion, of diverse ethical issues and positions as they appear in everyday life. Use a diverse set of religious ethical theories to address contemporary moral issues as they arise in popular culture.
Explain and justify their own positions on these questions, in discussion and in writing.

## RELS 103. World

Mythologies (5). An overview of world mythology and the contemporary study of myths: their nature, functions, symbolism, and uses; their cultural contexts, artistic expressions, and influence on contemporary life. Course will be offered every year (Fall, Winter, Spring, Summer).

Upon successful completion of this course, the student will be able to:
Accurately describe and analyze orally and in writing how the myths of the world help understand different cultures and diverse perspectives
Analyse the ways world myths
have shaped human experiences and informed social, political, sand global interactions
Discuss popular themes and motifs found in myths and situate them in their wider social, cultural, historical, and political contexts
Examine and discuss how labels affect perceptions and justify people's treatment of others
Identify and synthesize high quality academic sources and use them effectively to support an argument as well as cite and document such sources using MLA or Chicago style guidelines
RELS 298. Special Topics (16). May be repeated if subject is different.
RELS 299. Seminar (1-5). May be repeated if subject is different.
RELS 351. Religions of China and Japan (5). Historical development of Daoism, Confucianism, Shinto, and East Asian Buddhism within China and Japan, from their origins to the present. Analysis of beliefs, practices, symbols, and institutions. Upon successful completion of this course, the student will be able to:
Identify the major religious traditions (Daoism, Confucianism, Shinto, and Buddhism) of China and Japan. Explain the differences and commonalities of religious practices, beliefs, symbols and institutions for the traditions. Verbally and expositorally articulate an understanding of the religious traditions of China and Japan and their influences on the wider social milieu.

Develop analytical, reading and writing skills.
Identify the changes in and evolution of the traditions in contemporary East Asian society.
RELS 352. Religions of India
(5). Historical development of Hinduism, Buddhism, Sikhism, and Jainism within India, from their origins to the present. Analysis of beliefs, practices, symbols, and institutions. Upon successful completion of this course, the student will be able to:
Identify the major religious traditions (Hinduism, Buddhism, Sikhism, and Jainism) of India. Explain the differences and commonalities of religious practices, beliefs, symbols and institutions for the traditions. Verbally and expositorally articulate an understanding of the religious traditions of India and their influences on the wider social milieu. Develop analytical, reading and writing skills. Identify the changes in and evolution of the traditions in contemporary India society.

## RELS 353. Judaism (5)

Historical development of Judaism from its beginning to the present. Analysis of beliefs, practices, symbols, and institutions. Prerequisites: RELS 101 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Describe the origin and development of Judaism. Describe the rituals and beliefs within the different periods and later branches of Judaism, with special attention to the key themes of Scripture and Tradition, Monotheism, Authority, Worship, and Ritual, Ethics, and Religion and Political Order. Verbally and expositorally articulate an understanding of the potential distinction of Judaism in theory and in practice.

Verbally articulate the potential distinction in exploring Judaism from an academic versus adherent's perspective.
Develop analytical, reading and writing skills.
RELS 354. Christianity (5).
Historical development of Christianity, from its origins to the present. Analysis of beliefs, practices, symbols, and institutions.
Upon successful completion of this course, the student will be able to:
Describe the origin and development of Christianity, with particular attention to the forms of early Christianity,
Roman Catholicism, Eastern
Orthodoxy and Protestantism. Describe the rituals and beliefs within the major divisions of Christianity, with special attention to the key themes of Scripture and Tradition, Monotheism, Authority, Worship and Ritual, Ethics, and Religion and the Political Order.
Verbally and expositorally articulate an understanding of the potential distinction of these religions in theory and in practice
Verbally articulate the
potential distinction in exploring these traditions from an academic versus adherent's perspectives.
Develop analytical, reading
and writing skills.
RELS 355. Islam (5).
Historical development of Islam, from its origins to the present. Analysis of beliefs, practices, symbols, and institutions. Prerequisites: RELS 101 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Describe the origin and development of Islam.
Describe the rituals and beliefs within the different periods and branches of Islam, with special attention to the key themes of Scripture and Tradition, monotheism, authority,
worship, ritual, ethics, religion, and political order. Verbally and expositorially articulate an understanding of the potential distinction of Islam in theory and in practice. Verbally articulate the potential distinction in exploring these traditions from an academic versus adherent's perspective.
Develop analytical, reading and writing skills.
RELS 376. Contemporary Religious Thought (5).
Explores the nature of postmodern and/or contemporary philosophic, as well as religious thought, west and east, related to such topics as the nature of religion, the idea of God, the problem of evil, inter-religious dialogue and religious pluralism. May be repeated up to 10 credits. Formerly PHIL 376, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Understand the ambiguity of the phrase "contemporary religious thought." Evaluate the major ideas relevant to contemporary religious thought.
Analyze primary texts from post-Modern and contemporary philosophers, as well as religious scholars. Demonstrate knowledge of popular religious thought as depicted in current books, media, journal articles, and newspapers.
Develop analytical, reading and writing skills.
RELS 396. Individual Study
(1-6). May be repeated if subject is different.
RELS 397. Honors (1-12).
Prerequisite: admission to department honors program.
RELS 398. Special Topics (16).

RELS 399. Seminar (1-5).
May be repeated if subject is different.

## RELS 401. The Daoist

Tradition (5). An examination of the textual and cultural tradition associated with

Daoism, China's indigenous high religion.
Upon successful completion of this course, the student will be able to:
Identify the major sectarian forms of the Daoist religious tradition.
Explain the differences and commonalities of religious practices, beliefs, symbols and institutions for the sectarian schools.
Verbally and expositorally articulate an understanding of the religious traditions of Daoism and their influences on the wider social milieu. Develop analytical, reading and writing skills.
Recognize and describe the full tradition of Daoism, including its practices, ethics, rituals and philosophy.
Recognize and identify the difficulties in defining Daoism.
RELS 402. Religion and Film
(5). An examination of religious themes in film, including the portrayal of specific religious traditions and sacred narratives. Films will be selected from a wide range of possibilities, including foreign productions.
Upon successful completion of this course, the student will be able to:
Identify the themes of mythology, theology and ideology in contemporary films from around the world. Apply text literary criticism and theory to analyses of sacred and secular narratives in contemporary film.
Critically watch films and evaluate how their form and content work together to produce/construct meaning. Develop analytical, reading and writing skills. Assess, discuss, and write critically about film from a religious studies perspective. Broaden the students' understanding of the term "Religious" and to integrate that understanding into its significant role in film plot, narrative, and imagery.

Compare and contrast
"western" and "eastern" portrayals of religious themes in film.
Identify and articulate diverse perspectives on religion in film, including those from global, class, gender and ethnic/minority viewpoints.

## RELS 403. Buddhist

Thought and Practice (5). In depth study of the Buddhist tradition, including its practices, philosophy, and historical development across Asia, and its introduction to the West.
Upon successful completion of this course, the student will be able to:
Identify the major sectarian forms of the Buddhist religious tradition.
Explain the differences and commonalities of religious practices, beliefs, symbols and institutions for the sectarian schools.
Verbally and expositorally articulate an understanding of the religious traditions of Buddhism and their influences on the wider social milieu. Develop analytical, reading and writing skills.
Recognize and describe the full tradition of Buddhism, including its practices, ethics, rituals and philosophy. Recognize and identify the difficulties in defining Buddhism.
RELS 410. The Legacy of the Hebrew Bible (5). A multidisciplinary exploration of the Hebrew Bible, seeking to understand both the Bible's influence on and perception in a variety of disciplines (e.g. art, literature, music, film).
Upon successful completion of this course, the student will be able to:
Identify the canon of the Hebrew Bible.
Discuss the growth and structure of the Hebrew Bible. Explain the issues involved in the authorship of the Hebrew Bible.
Define rabbinic literature, to include delineating texts that
belong to his corpus, their contents, genre, exegetical techniques, and the significance such texts have on the Judaic interpretation of the Hebrew Bible.
Describe the contents of each book including major themes, moral implications, and religious and philosophical implications.
Discuss specific examples by which the Hebrew Bible has been influential in the field of liberal arts (fine art, literature, music, and film, etc.) Analyze the historical, cultural, and literary background of the Hebrew Bible in relation to the ancient near east.
RELS 413. Varieties of Early
Christianity (5). A study of the varieties of early Christian thought and practice in the first three centuries of the Common Era, with a focus on an examination of extra-canonical literature. Course will be offered on odd numbered years. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Identify and assess the contents and common characteristics of the various genres of literature found in early Christian noncanonical writings Discuss and analyze the theoretical issues and problems surrounding the idea of "orthodoxy" and "heresy" Explain and summarize the historical growth and development of early Christianity and the influence and place of non-canonical literature in biblical history and interpretation
Compare and contrast different portrayals of key Christian figures (e.g., Jesus, Mary, Mary Magdalene, etc.) in canonical and non-canonical literature and how these depictions intersect with issues of history, politics, ethics, theology, gender, race, etc. Compare and contrast different portrayals of key Christian figures (e.g., Jesus, Mary,

Mary Magdalene, etc.) in canonical and non-canonical literature in art, literature, film, pop culture, etc.
Examine the historical, cultural, and literary background of non-canonical writings in relation to Judaism and the Ancient Mediterranean World
RELS 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
RELS 491. Workshop (1-6).
May be repeated for credit.
RELS 494. Undergraduate
Thesis Preparation (2).
Preparation for writing undergraduate thesis. Grade will be either S or U . Prerequisite: junior standing or above and permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate progress towards understanding the major ideas within religious studies, specifically those relevant to the self-designed thesis topic. Demonstrate progress in the ability to advance and support a thesis, as well as analyze and critically evaluate the beliefs and arguments of others. Demonstrate pluralistic and flexible thinking, considering new ideas and critically reflecting on them.
Respond productively to advisor suggestions on topic, thesis statement, sources, and organization of the senior thesis.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.
RELS 495. Undergraduate
Thesis (3). Produce an original substantive thesis-driven paper
based on independent research.
By permission. Prerequisite:
RELS 494 and advanced standing.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding the major ideas within religious studies, specifically those relevant to the self-designed thesis topic.
Demonstrate the ability to advance and support an original thesis.
Analyze and critically evaluate the beliefs and arguments of others.
Demonstrate pluralistic and flexible thinking, considering new ideas and critically reflecting on them.
Respond productively to advisor's suggestions for revision.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.

## RELS 496. Individual Study

 (1-6).RELS 497. Honors Thesis
(3). Produce an original , thesis-driven honors level
paper based on original research. Paper will be reviewed by a second departmental reader and presented in an open forum. Prerequisites: PHIL 494, advanced standing, and admission to the Philosophy and Religious Studies Departmental Honors Program. Upon successful completion of this course, the student will be able to:
Demonstrate an advanced understanding of the major ideas within religious studies, specifically those relevant to the self-designed thesis topic. Demonstrate an advanced ability to develop and support an original thesis.
Analyze and critically evaluate the beliefs and arguments of others.
Demonstrate a high degree of pluralistic and flexible thinking, considering new
ideas and critically reflecting on them.
Respond productively to advisor's suggestions for revision.
Evaluate the relevance and reliability of scholarly sources, specific to the topic of the senior thesis.

## RELS 498. Special Topics (1-

 6).RELS 499. Seminar (3-5).
RMT 298. Special Topics (1-
6). May be repeated if subject is different.
RMT 299. Seminar (1-5).
May be repeated if subject is different.
RMT 320. Topics in Strategy for the Craft Brewing
Industry (5). This course is a broad overview of the key elements required to start and operate a craft brewery in the United States. Includes an introduction to topics such as financing, accounting, branding, distribution, business plan development, management, and retail specific to craft brewing. Prerequisites: admittance to the Craft Brewing Program or permission from the department.
Upon successful completion of this course, the student will be able to:
Construct a business plan for a start-up business
Analyze costs related to brewing industry which includes materials, supplies, and labor
Demonstrate knowledge of the three-tiered system of distribution for beer Apply theories of consumer behavior to the formulation of effective marketing strategy Discuss the goals of marketing strategy as they pertain to strengthening brands
Discuss and defend developed business plan
Demonstrate an understanding of the purpose of channel selling and where it fits in the field of brewing
Apply the functional areas of channel selling and how those
areas interrelate with the craft beer business
Identify basic understanding of the ethical and legal issues in brewery
Acquire knowledge of the framework of distribution and its special characteristics within the brewing industry
Describe the interdependence
of the brewer and the
distributor
Apply the elements involved in a brewer's channel
communication
Describe the brewer's supply
chain management
Describe and list the key requirements and mandatory
reporting in Washington State

## RMT 330. Principles of

Retailing (4). Introduction to retailing including retail stores, merchandising, operations, store location and layout, internal organization, buying, personnel management, inventory control, and sales promotion.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the purpose of retailing and where it fits in the field of business.
Identify careers and opportunities in retailing. Discuss the philosophies of retailing.
Identify various forms of retailing.
Demonstrate basic merchandising techniques. Identify the role of the sales supporting function. Define the responsibilities of the retail: operations function. Demonstrate basic decisionmaking skills in retailing. Discuss and identify the unique aspects of service retailing. Evaluate retailing principles from multiple sources. Competent in the use of electronic mail and Power Point presentation. Incorporate technology into presentations and assignments. Understand how computers and the World Wide Web can be used in retail operations.

RMT 335. Retail Information
Technology (4). Use of contemporary technology in collecting, analyzing, and interpreting retail management data and writing and presenting retail management reports. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of a variety of contemporary retail technology terms and their meanings.
Identify and understand the hardware and software which encompasses retail technology including but not limited to epoint of sales, automatic identification and data capture, database management systems, networking and telecommunication.
Understand the role of modern electronic payment systems, enterprise resource planning systems and their functions and features in the retail context. Understand the importance of supply chain management and customer relationship management, electronic commerce, emerging technologies like mobile computing, m-commerce, global positioning systems, and fraud protection systems in the retail context.
Identify and evaluate retail IT products and vendors. Identify trends in technology that will impact the retail industry.
RMT 340. Principles of
Selling (4). Introduction to selling, its role in the economy, the sales process, types of selling, planning the sale, and sales organization.
RMT 345. Sustainable
Retailing (3). This course will introduce principles and practices of sustainable retail operations. The course will enable students to provide guidance, leadership and support to retail organizations in the development, implementation, and assessment of successful sustainable operations.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the history of sustainable development in retailing Analyze the environmental impacts of differing retail management operations and the associated benefits and opportunities
Demonstrate an understanding of best practices and processes in sustainable retail operations Evaluate sustainable strategies
for working with key stakeholders
Evaluate industry claims with respect to environmental dimensions such as certified, organic, fair trade products and practices
Apply the techniques for applying cost/benefit analyses to sustainable retail operations
Demonstrate an understanding of retail technology innovations that maximize sustainable strategies Create strategies for setting, implementing, and assessing retailing goals for sustainability Identify and analyze job descriptions focused on sustainability within a retailrelated operation Self-assess current qualifications to match the identified jobs
RMT 350. Omni Channel Retailing (4). Examines the progress and application of omni channel retailing. Prerequisite: RMT 330. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the history of omni channel retailing and its impact on management of the 21st century.
Demonstrate knowledge of the framework of omni channel retailers.
Describe the elements involved in omni channel security.
Describe the elements involved in omni channel social media.

Critique the omni channel strategies and tactics of retailers.
Create a web based retailer.
RMT 366. Customer
Relationship Management
(4). Developing and maintaining strong customer relationships is paramount to a successful business. Students learn to manage prospects and current customers by using information technology. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Use IT technologies/tools in the context of CRM.
Explain what is CRM and its roots, and its importance for organizations.
Explain different enablers of CRM especially data integration, and how can technology facilitate this integration.
Demonstrate the importance of data mining in CRM and apply some data mining techniques. Demonstrate and apply some measurement of CRM effort and effectiveness.
Demonstrate basic understanding of the ethical and future issues in CRM. Demonstrate personal thinking and personal integration of concepts.
RMT 379. IT Management
Career Planning (1).
Preparation of an internship experience or career advancement. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Research and design a plan for finding an internship or career advancement
RMT 396. Individual Study (1-6). May be repeated if subject is different.
RMT 397. Honors (1-12).
Prerequisite: admission to department honors program.

RMT 398. Special Topics (1-
6). May be repeated if subject is different.
RMT 399. Seminar (1-5).
May be repeated if subject is different.
RMT 467. Retail
Management (4). Retail store ownership and management, including startup, location, market analysis, customer service, organization, merchandise management, human resource management, sales promotion, and financial planning. Prerequisites: RMT 330 and senior standing. Upon successful completion of this course, the student will be able to:
Describe the framework of retailing and its special characteristics.
Apply strategic planning in retailing.
Critique the philosophies of business ownership and management.
Describe retail institutions on the basis of strategy mix. Describe and apply the steps in setting up a retail organization. Describe and understand the processes of merchandise buying and handling. Describe and understand several pricing concepts and strategies.
Describe and understand the elements involved in a retailers communication with its customers.
Discuss and identify the unique aspects of service retailing. Evaluate retail management information from multiple sources.
Use electronic mail and Power Point presentation.
Demonstrate technology into presentations and assignments. Demonstrate how computers and the World Wide Web can be used in retail operations.
RMT 485. International
Retailing (4). Emphasis on international retailing and global trade. Focus on crosscultural differences, work environments, policies and regulations. RMT 485 and ATM 485 are cross-listed
courses; students may not receive credit for both.
Prerequisite: RMT 330.
Upon successful completion of this course, the student will be able to:
Knowledge of key International Retailing (IR)
concepts, terminology, decision-making areas, planning process, and global trends
Analyze the contemporary global marketing and retailing environment and identify shifts/trends in: demographics, social/cultural values, political attitudes, laws and regulations
Demonstrate concern of ethics in IR
Use and apply various research technologies (Web, library, online databases, CD-ROMs) to IR decisions
Demonstrate how global marketing retail decisions affect resources in the natural environment and vice versa Development of oral and written communication skills
RMT 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Available summer only. By permission. May be repeated for credit. Grade will either be S or U . Prerequisite: RMT 379.
RMT 492. Practicum (5-15).
Grade will either be S or U . Prerequisite: permission of department chair.
RMT 496. Individual Study (1-6).
RMT 497. Honors (1-12).
Prerequisite: admission to department honors program.
RMT 498. Special Topics (16).

RMT 499. Seminar (1-5).
RMT 493A. Undergraduate Research Practicum (Put on reserve 9/16/15.) (1-3).
Conduct research under direct supervision of a professor with
specific learning agreement
required. ADMG/IT/RMT 493A are cross-listed courses; students may only receive credit for one. By permission. May be repeated for up to 3 credits. Grade will either be S or U. Put on reserve 9/16/15. Will go inactive $8 / 24 / 18$.
RMT 493B. Undergraduate Assistant Practicum (Put on reserve 9/16/15.) (1-3). Assist in monitoring, supervising, supporting, and tutoring instruction under direct supervision of a professor with specific learning agreements required. ADMG/IT/RMT 493B are equivalent courses; students may only receive credit for one. By permission. May be repeated for up to 3 credits. Grade will either be S or $U$. Put on reserve 9/16/15. Will go inactive 8/24/18.

## RTE 150. Experience

Leadership Project (1). A
unique experiential transition program held off-campus (camp/outdoors/community) designed to provide students with the skills and networks to develop leadership skills and Wildcat spirit. Formerly RT 150, students may not receive credit for both
Upon successful completion of this course, the student will be able to:
Identify elements of effective communication.
Match student needs to campus resources and services.
Demonstrate interpersonal and intrapersonal growth.
RTE 161. Challenge Course
Experience (1). An
introductory course that engages students in all aspects of challenge course activities. Students gain valuable perspective and practical skills related to leadership, communication and teamwork. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Identify elements of communication, leadership, and community building.

Recognize the connection between communication, leadership, and community building.
Define the steps of problemsolving.
Demonstrate problem-solving skills.
RTE 162. Backpacking (1).
This course provides basic hiking and backpacking instruction. The course focuses on proper leave-no-trace principles in every aspect of the trip. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
List elements of camp site selection
Apply camp site selection techniques
Operate and repair camp stoves Load backpack correctly
Operate and clean water
filtration system
Illustrate proper foot placement to conserve energy

## RTE 163. Introduction to

 White Water Kayaking (1).Students will learn the basics of white water kayaking through a combination of pool sessions, classroom lectures, and a field experience. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Describe basic paddle strokes needed for white water kayaking.
Practice basic paddle strokes for kayaking.
Recognize the different kinds white water rapids and what they mean to the kayaker. Demonstrate proper kayaking skills on the river.
RTE 201. Introduction to Recreation and Tourism (3). History, organizational structures, goals and objectives, policies and procedures within agencies, organizations, and businesses in the private, voluntary, government, and tourism sectors. Formerly RT 201,
students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the historical perspectives on the growth and development of the various recreation and tourism organizations, agencies and businesses and their philosophical and practical perspectives guiding their respective operations; $(8.06 .01)$ (8.09)

Identify professionalism and professional organizations representing the various recreation and tourism entities; accreditation, professional certification and professional standards (8.06.02 \& 8.08)
Explain the roles and interrelationships of diverse delivery systems; (8.13) and physical, financial and human resources utilized in the conduct of day-to-day operations of organizations; the various internal organizational structure of agencies, organizations and businesses Describe the impact of diverse leisure service system the community from human, environmental and economic perspectives. (8.12); and contemporary problems, issues and trends within the leisure services profession; (8.06.03) Identify the clientele common to the agency or program type; (8.10)

## RTE 210. Student

Leadership (1-3). Provides leadership experiences in the planning/implementing of student activities and services within RTE programs. Students will initiate on-campus or offcampus community projects, programs, and activities. May be repeated up to 3 credits. Permission by instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Describe the leadership process and discuss how values and experiences affect how
individuals choose to serve and lead.
Identify the elements of effective community programs.
Diagram elements of effective community programs. Write a personal philosophy statement of leadership, social responsibility and civic duty.

## RTE 222. Recreation

Programming and Activities
(3). The essential skill of recreation programming will be developed. Games and activities appropriate for playgrounds, camps, and community centers are learned, along with socialization, education, trust building, and outdoor adventure. Formerly
RT 222, students may not receive credit for both. Prerequisite: permission of instructor.
Upon successful completion of this course, the student will be able to:
Demonstrate programming in class and, in practical situations. Develop a program from conceptualization to implementation. Demonstrate, plan, and lead a game or adventure activity. Identify the fundamentals of play leadership.
Demonstrate concern for safety of self and others
Modify a games for a specific identifiable population.
RTE 230. Program and
Event Budgeting (2). Budget
processes, terminology, and
formats will be covered along with the preparation of basic budgets for events and
programs. Formerly FSCG
230, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Define budget terminology
Describe Revenue and
Expenditure Formats
Prepare and present a basic program/event budget

RTE 272. Lodging
Operations I (3). Examines the rooms division and front office functions critical to hotel operations. Includes the guest cycle, personnel supervision, sales techniques in the reservation process, and hotel organization and operation. Formerly RT 373F, students may not receive credit for both. Formerly RT 272, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Explain the organization of the lodging industry and foundations of lodging operations.
Identify the ownership and management of lodging properties including Real Estate Investment Trusts
(REIT),management companies, brands, and independent ownership.
Explain the Global Distribution System (ODS) including Social Media and Online Travel Agents used in the lodging industry.
Describe the operation of the Property Management System including the interaction of the reservations, registration and in house accounting systems. Describe the processes involved in the foundations of lodging accounting (forecasting, revenue management, approving credit, posting to accounts and night audit).
RTE 292. Practicum (1-3).
Forty on-the-job hours of practical experience perone credit hour earned. Four additional hours may be applied toward the recreation tourism elective area. A minimum of one credit must be taken as a service-learning activity. May be repeated for credit. Formerly RT 292, students may not receive credit for both.
RTE 293. Outdoor
Leadership Training (2).
Develop a student outdoor leader with the skill sets capable of leading groups
safely in an outdoor environment pursuit. In addition, students will learn and apply group development theory. Formerly RT 293, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Explain the organization of the lodging industry and foundations of lodging operations. Identify the ownership and management of lodging properties including Real Estate Investment Trusts
(REIT),management companies, brands, and independent ownership. Explain the Global Distribution System (GDS) including Social Media and Online Travel
Agents used in the lodging industry.
Describe the operation of the Property Management System including the interaction of the reservations, registration and in house accounting systems. Describe the processes involved in the foundations of lodging accounting (forecasting, revenue management, approving credit, posting to accounts and night audit).
RTE 294. RTE Participatory
Leadership (1-3). Developing participatory leadership skills through engagement with civic activities, special events, and/or RTE activities. Emphasizing interpersonal encounters, community building, shared responsibility, and intrapersonal development. May be repeated up to 6 credits. Grade will be S or U . Course will be offered every year (Fall, Winter, and Spring). Upon successful completion of this course, the student will be able to:
Define participatory
leadership.
Describe the art of community building.
Compare and contrast
interpersonal encounters
through structured engagement opportunities.
Analyze elements of social connectedness as they relate to democracy.
Evaluate activities/events in regards to participatory leadership elements and social impact.
Reflect on engagement
experiences to determine personal impact and effectiveness in participatory leadership opportunities.
RTE 296. Individual Study
(1-6). Formerly RT 296, students may not receive credit for both.
RTE 298. Special Topics (1-
6). Formerly RT 298, students
may not receive credit for both.
RTE 299. Seminar (1-5).
Formerly RT 299, students
may not receive credit for both.
RTE 300. Challenge Course
Leadership (4). Students will develop leadership skills using the challenge course. Specifically, students will learn and use facilitation techniques to improve group and individual interaction. Formerly RT 300, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate how different apparatus of a Challenge Course works.
Apply a leadership model to improve self- awareness or team work.
Demonstrate the process of evaluation to improve activities.
Identify and apply group
facilitation techniques.
RTE 309. Facility Planning
and Sustainable Design (4).
Study of basics of site and facility development including laws and regulations, procedures, sustainable concepts, site analysis, populations, universal design, and utility of design. Formerly RT 309, students may not receive credit for both. Upon successful completion of this course, the student will be able to:

Identify elements of effective communication.
Match student needs to campus resources and services Demonstrate interpersonal and intrapersonal growth.
RTE 330. Sustainable
Resources for Recreation and
Tourism (3). The framework
of sustainability is used to examine how values, policy, management, and practices direct and affect the use of recreation and tourism areas that are both natural resourcebased and part of the built environment. Formerly RT 330, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the key historical figures in shaping
environmental policy, to include Gifford Pinchot, John Muir, and Aldo Leopold. Identify relevant sustainability indicators addressing the environmental, cultural, and economic dimensions of a site specific resource management operation.
Develop a resource
management plan for a local resource based recreation site. Site selection may include Manastash Ridge or the Helen McCabe Interpretive Center site.
Evaluate the application of appropriate management interventions.
Demonstrate the application of the Leave No Trace principles.
RTE 331. Sustainable
Events: Best Practices (3).
Students will explore contemporary issues, trends, and policies and practices that shape the event management field and how principles of sustainability affect planning, management and operations of special events. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisite: RTE 374 or RTE 373D.

Upon successful completion of this course, the student will be able to:
Use the three dimensions of sustainability and relevance. Apply the principles of sustainability for special events.
Summarize the steps used to analyze articles within the context of sustainability and event management. Evaluate the effectiveness of sustainability policy for current events.

## RTE 333. Outdoor

Adventures in Public Lands
(4). This course is designed to provide students an experiential education in outdoor recreation within public lands. Students will explore how ideas become thoughtful practice in outdoor adventure program. Ability to hike and camp in wilderness areas. Formerly RT 333, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify Issues pertaining to outdoor recreation. Outline broad-based models that describe the issues. Construct a theoretical model that pertains to an issue in outdoor recreation. Design a 1-3 hour activity that meets specific parameters established in the models. Test the theoretical model through observation and questionnaire research methods.
Revise the theoretical model based on observational and questionnaire research methods.
Defend a theoretical model.
RTE 337. Tour and Interpretive Program Development (3). Methods, techniques, and skills used in the planning, development, and presentation of resource based interpretive programs and visitor tours. This course will include theoretical understanding of the interpretive process and
practice of new skills. Formerly RT 337, students may not receive credit for both.
RTE 339. RTE: Enterprise Development (3). This course focuses on the Business Plan as a necessary component to beginning a small business in the fields of Recreation, Tourism and/or Events. It addresses facets of the business plan from determining actual content, reviewing examples to creating a comprehensive plan. Course will be offered on even numbered years. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Identify different
organizational structures used in RTE.
Describe the components of a business plan.
Critique the business plans of several other start-up ventures in RTE
Create a formal business plan
for an RTE Enterprise
RTE 340. Introduction to
Adventure Programming (3).
The course is an overview of the history, evolution and implementation of adventure learning in education. Students will mix classroom time and field experience. Course will be offered on even numbered years. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Describe the history and
evolution of Adventure
Education.
Select "best" adventure theories to use in various situations.
Design appropriate outdoor program for selected participants.
Implement outdoor program.
Assess outdoor program effectiveness through data collected.
RTE 345. Backcountry
Leadership (3). Prepares students to be leaders in outdoor settings by building
the practical and logistical skills needed in the effective delivery of trips. Covers the teaching skills and essentials for trip leaders in the wilderness, including trip planning, logistics, risk management, and group interaction in the back-country. Course will be offered on odd numbered years. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Identify methods for teaching kinesthetic skills.
Illustrate the proper use of trip policies and procedures. Develop and implement an Incident Response Plan for the end of term outing.
Apply camping and backpacking techniques.
Demonstrate an understanding
of risk management planning.
RTE 350. Tourism and
Recreation for Special
Groups (Put on reserve as of
$9 / 16 / 15$.) (2). Distinguishing
needs of special populations, mentally ill, disabled, aged, and others. Attention to the ADA. Observations of selected population groups. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Formerly RT 350 , students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe characteristics of different special populations Identify the appropriate agency and program serving the needs of special populations individuals
Describe how to adapt and accommodate programs based upon the impairment, activity, and participation facing the special population individuals Analyze a program and identify needs of special populations and how those needs may be met through recreation and leisure experience
RTE 351. On-Line Strategies
for RTE (3). Course will
highlight the use of social media and other strategies to reach RTE customers and organizations. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Use social media of effective marketing and planning in the fields of recreation, tourism, and event management. Propose strategies to reach global markets. Analyze online customer strategies and trends Evaluate analytics from social media sites to improve decision-making skills. Select the best strategy to reach global markets.

## RTE 355. Sustainable

Tourism: Contemporary
Issues (2). Students will explore contemporary issues, trends, policies, and practices shaping the tourism field, and how principles of sustainable tourism are affecting tourism planning, management, and operations. Formerly RT 355, students may not receive credit for both. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify topical issues pertaining to sustainable tourism within the popular media.
Analyze the popular media articles using content analysis techniques to recognize and interpret critical issues within the context of sustainability. Present key findings from content analysis in a professional manner. Summarize the state of the field based on analysis, engagement in presentations, and interpretation of findings.

## RTE 360. Outdoor Survival

## (3). Students will gain an

 introductory knowledge in winter survival. Specifically, students will gain a hands-on experience in learning to protect themselves and gain asense of self-control in a harsh environment. Formerly RT 360, students may not receive credit for both.
RTE 361. Technology for
Recreation and Tourism (2).
This course will focus on software being used in the RTE industries. Student will use software utilized in the profession to schedule facilities, programs and staff, register participants and track usage and revenue. Formerly
RT 361, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
To assemble and create facility scheduling utilizing on line software
To develop and process registration for events and programs including the initial set up through revenue reporting
To examine and interpret various reports generated through RT software
RTE 371. Tourism Essentials
(3). Students will survey the global travel and tourism system, including consumer demand and motivations, tourism suppliers and intermediaries, modes of travel, visitor attractions, marketing and entrepreneurship, destinations, and impacts of tourism on people and communities. Formerly RT 371 , students may not receive credit for both. Prerequisite: six credits of RTE prefix courses or permission of instructor.
Upon successful completion of this course, the student will be able to:
Incorporate the breadth of the global travel and tourism industry and system within their daily discussions Analyze traveler motivations and the demand side of tourism Assess the components of the supply side in tourism and specific careers within each Evaluate the kinds of impacts that tourism development has on destinations

Evaluate the kinds of promotion applicable to the tourism product

## RTE 374. Festivals and

Events (4). Students will learn the purposes, mechanics, and leadership skills required for planning and executing community festivals and special events of a social nature. Formerly RT 374 , students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Articulate the historic roots of celebration within diverse communities.
Create a plan for an event, using appropriate
psychographic factors affecting the event's length, purpose and outcomes; needs assessment, and the phases of event leadership.
Develop on paper the resources
for entertainment options and
know how to stage the event
experience.
Integrate technical
specifications, and vendor
contracting into the event plan.
Articulate the benefits of
training and directing a diverse staff and volunteers. Demonstrate leadership in terms of solving problems and act decisively.
RTE 377. The Gaming and
Casino Industry (3). An
overview of the casino industry including: traditional casinos, riverboats, historical perspective, legal, social, cultural and economic impacts, Native American gaming, regulation and control of gaming, and future trends in gaming industry. Formerly RT 377 , students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the history of gaming
\& correctly use gaming and casino terms
Assemble and summarize issues and trends in casinos and gaming

Evaluate the potential positive and negative impacts of gaming
Compose a personal informed opinion regarding impacts and value of gaming Analyze common laws, regulations and controls of the gaming industry Distinguish between casino types and their operations

## RTE 379. Cruise Line

Industry (3). An overview of the cruise industry including: cruise lines, ships, history of cruising, human resource practices, marketing, design, terminology, and future trends. Formerly RT 379, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Use correct terminology Identify the (30) principal cruise lines and cruise associations (e.g. CLIA) Know the geography of the principal cruising areas Identify cruise ship characteristics and read a deck plan
Outline the characteristics of the cruise market Explain the sales and marketing forces that apply to the cruise product Know planning considerations of the cruise industry Discuss the management of cruise functions and activities Describe the hotel and recreational departmental functions and relationships of a cruise operation, including sea and land based operations Demonstrate knowledge on management principles in cruise operations Explain inter-relationships of cruise lines with other travel industry sectors Evaluate future trends and cruise management challenges Identify the environmental risks posed by cruise operations Describe career opportunities in the cruise industry Express basic knowledge of regional cruise opportunities
and homeports in the Pacific Northwest
RTE 380. Supervision in the Hospitality Industry (On reserve as of $9 / 16 / 15$ ) (5). This
is a broad based course on the
role and functions of a
supervisor. It presents
strategies for supervising programs, facilities, and especially personnel. Case studies are used to practice supervisory skill development.
Put on reserve as of $9 / 16 / 15$.
Will go inactive 8/24/18.
Formerly RT 380, students may not receive credit for both. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify the fundamental responsibilities of a supervisor and differentiate between the roles of supervisors and of managers
Demonstrate ability to communicate effectively, supervisor to employee Demonstrate ability to recruit and work alongside HR departments
Identify components of basic supervisory duties such as progressive discipline, motivation, conflict resolution, time management, handling change
Have ingrained and integrated
principles of supervision in order to prepare them for supervision as the path to promotion
RTE 381. Recreational Sports Management (3).
Organization and implementation of recreational sports programs in community recreation settings. Emphasis on facilities, personnel, materials and supplies, tournament bracketing and other practical considerations. Formerly RT 381, students may not receive credit for both.
RTE 382. Community
Recreation (3). Preparation for positions in community-based organizations to include nonprofits and municipalities, grant writing, board-staff
relations, community capacity building, and social marketing. Formerly RT 382, students may not receive credit for both. Prerequisite: junior standing or above.
Upon successful completion of this course, the student will be able to:
Identify funding sources, scope grants, craft grant proposal
Describe types of Boards and the corresponding staff
functions associated with various Board governing structures
Create strategic action plans tailored to build community capacity to achieve agency objectives
Demonstrate social marketing techniques
Apply principles of sustainability to communitybased recreation strategic planning
RTE 396. Individual Study
(1-6). May be repeated if subject is different.
RTE 397. Honors (1-12).
Prerequisite: admission to department honors program.
RTE 398. Special Topics (1-
6). Formerly RT 398 , students may not receive credit for both. RTE 399. Seminar (1-5). May be repeated if subject is different.
RTE 405. Hospitality
Catering (3). Basics of off-
premise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RTE 405, and RTE 505 are equivalent courses; students may not receive credit for more than one. Formerly RT 405, students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Describe the process and tasks needed to completely plan and implement an off premise catering event
Identify basic tasks and steps involved in catering an event including budgeting, menu planning, logistics, and service

Outline the management issues and concerns unique to off premises catering including marketing, financial management, human resources, and facilities.
Given a situation be able to identify safety and sanitation problems
Complete a business plan for a catering and event operation
RTE 419. Applied Research
and Evaluation (3). Basics of research design including problem identification, research and evaluation similarities and differences, sampling, survey development, methods and application, implementation, data analysis, and review of published research. Formerly FCS 419 and FSCG 419, students may not receive credit for both. Course will be offered every year (Winter and Spring). Upon successful completion of this course, the student will be able to:
Identify the importance and relevance of research and evaluation
Demonstrate the application of research and evaluation to solve problems
Describe the similarities and differences between evaluation and research
Demonstrate how to select and apply appropriate research methods to generate data for industry specific evaluation and research.
Explain and apply sampling principles
Create a comprehensive
research or evaluation proposal Use technology to manage and analyze data
Identify, read, and interpret
secondary research

## RTE 420. Program

## Promotion and Advertising

(5). Provides students with
skills through practical exercises, lectures, demonstrations, and examples to enable them to use marketing concepts and tools to develop effective campaigns. Formerly FCSG 420, students may not receive
credit for both. Course will be offered every year (Fall, Winter, and Summer). Upon successful completion of this course, the student will be able to:
Define the role of marketing and its importance
List examples of marketing
functions and related activities Differentiate between the concepts of marketing segmentation, niche and mass marketing, and the marketing mix
Create promotional material Create an advertising campaign for program, event, product, or service
RTE 430. Grants,
Sponsorship, and
Fundraising for RTE (5).
Students learn the art and
science of grant writing, sponsorship, and fundraising within the RTE sectors. Students explore key concepts, best practices and industry standards surrounding each of the respective sector topics.
Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of grants, sponsorship, and fundraising.
Calculate external funding needs for agencies in
Recreation, Tourism, and Events field.
Propose RTE agency needs for non-financial relationships. Write a grant proposal. Justify the grant, sponsorship, and fundraising proposals.
RTE 431. Recreation Administration of Retreats and Camps (3). Methods, techniques, skills, and trends in programming for longer stays at retreats, residences, and camps. Topics include socialization, education, trustbuilding, staffing, teambuilding, outdoor adventure, risk management, budgeting, equipment and facilities. Formerly RT 431, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
Demonstrate programming in class and in practical applications
Plan and develop a program from conceptualization to implementation stages, including budgeting Plan, demonstrate and lead an initiative or adventure activity Demonstrate concern for safety of self and others Incorporate trends into programming and initiative planning
RTE 452. Regional Wine
Tourism (4). Wine tourism is an American growth industry. Unlike in Europe, support for wine tourism in the USA is regional. This course offers an academic and hands-on approach to regional wine tourism that will assist RTE and GWS graduates. GWS 452 and RTE 452 are cross-listed courses, students may not receive credit for both. Formerly RT 452, students may not receive credit for both. Prerequisites: nine credits of upper division GWS or RTE courses or permission of instructor.
Upon successful completion of this course, the student will be able to:
Examine the history and organization of the wine industry and tourism as it relates to the wine industry Assess the advantages and disadvantages of national and state organizations for wine tourism
Compare and contrast regional events, wine trails, tours, and clubs across wine regions based upon criteria identified in the class
Evaluate wine tourism service and facilities
RTE 454. Wine Tourism Applications (4). Students conduct research on sectors of the wine tourism industry in Washington State such as wine trails, wine clubs, regional wine associations and wine festivals. The student conducts
hands-on research that may be useful to these sectors. GWS 454 and RTE 454 are crosslisted; students may not receive credit for both. Formerly RT 454, students may not receive credit for both. Prerequisite: GWS 452 or RTE 452.
Upon successful completion of this course, the student will be able to:
Participate in, and observe, wine tourism by volunteering in a tasting room, or at a wine festival or at a wine event Generate a hypothesis or problem as to how wine tourism functions on that level Test the hypothesis using a research strategy Write a prospectus for research on a regional wine tourism problem that includes a review of similar research, a description of the methods that will be used for data collection demonstrate that they can conduct research as laid out in the prospectus, generate interpretations from the data and write up the study in an academically acceptable form
RTE 471. Tourism Planning and Sustainable Development (Put on Reserve 9/16/16.) (3). The planning process is studied in connection with the development of sustainable tourism, taking into consideration the impact of development on the economic, social, fiscal, environmental, and political fabric of communities. Formerly RT 471, students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2010. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Define planning and sustainable development, noting that they are distinct, but closely intertwined processes
Describe the economics of tourism organizations (publicly and privately funded enterprises, NGO's, non-profit organizations) and the roles of
community leaders and developers in sustainable planning and development Evaluate the application of principles of community tourism development (Main Street approach) in local communities; and sustainable and unsustainable tourism development at extra-local destinations
Conduct and present original research and planning on one substantial community tourism development aspect; the impacts and sustainability of that development Describe the impacts (economic, social, fiscal, environmental, political) that tourism has on communities
RTE 473. Air Travel and
Tourism (Put on reserve
9/16/17) (3). Examines the airline industry, its components and methods of operation; the interaction with other segments of the industry. Procedures for working with the airlines. Formerly RT 473, students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Prerequisite: RTE 201.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of domestic and international airline routing systems Describe the major types of passenger airlines. Know the major domestic and international carriers flying from regional hubs and their codes
Define 50 standard airline
industry terms
Describe five factors likely to affect a passenger's fare Know several procedures for researching air itineraries and fares
Create and price air itineraries for domestic and international travel
Recognize common aircraft types and configurations
Describe the roles of FAA,
NTSB, DOT, ATA, ARC, and IA TA. Explain the safety
features of air travel

Outline the steps a traveler takes from making a reservation to completing a flight and the limits on an airline's liability
Book flights using a CRS simulation Select appropriate airline traffic documents for a given transaction
Describe the importance of the airline industry to travel and tourism
Know a typical airport design
and rules of airport check-in and security
Know typical integrated intermodal air and ground transportation systems
RTE 474. Lodging
Operations II (Put on
Reserve 9/16/16.) (3).
Analysis of hotel performance and forecasting, with tools typically used in a lodging environment. Formerly RT 474, students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Upon successful completion of this course, the student will be able to:
Evaluate the performance of a hospitality operation using performance measures such as RevPar, ADR, Yield, Google Analytics, Online registration and meeting planning Analyze internal controls and identify methods of cost controls
Analyze a budget to evaluate a lodging operation and the effectiveness of its staff Identify the forms of social media used for lodging operations and marketing

## RTE 479. Cruise Line

Workshop (Put on reserve as of $9 / 16 / 15$.) (2). Students will learn the ports, ports of call, and cruise lines of the Pacific Northwest. A visitation will be made to selected cruise offices and ports. By permission. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Formerly RT 479, students may not receive credit for both. Prerequisite: RTE 379.

RTE 480. Tourism
Administration (4).
Contemporary problems and issues, basic applied research, organizational development, policy formulation, human resources, inventory, and program personnel evaluation processes. Formerly RT 480, students may not receive credit for both. Prerequisites: FCSG 220 and HRM 381 or MGT 380 , senior standing, and admission to the RTE major or minor.
Upon successful completion of this course, the student will be able to:
Understand the importance of recreation and tourism services Understand the importance of management and the major roles played by managers Know classic and current management theory and trends Know manager's roles of planning, organizing, developing, and policy making Know management's role in programming
Know management's role in developing and maintaining facilities
Have an overview of fiscal/financial management in organizations
Know the scope of employment RT organizations Understand the nature of job classification systems and position descriptions and the process of recruiting, interviewing, and selecting applicants
Know supervisory practices, including coaching, counseling, promotion, termination Know motivation techniques and reward systems
Know methods of conflict resolution
Know the content and purpose of personnel policy manuals Understand the use of advisory committees and partnerships
Have an overview of legal responsibilities
Know several models of evaluation
Practice survey research as a methodology contributing to
effective evaluation and management
Understand creative leadership and self-management skills
RTE 484. Legal Liability and
Risk Management (4).
Aspects of personnel law, premises in liability, Americans with Disabilities, and procedures for managing risk for the recreation and tourism professional. Formerly
RT 484, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Discuss the legal foundations
and responsibilities of recreation and tourism agencies.
Analyze legal concepts including negligence, classification of users, contracts, human rights, labor law, ADA, property and torts as applied to the field. Create an effective risk management plan. Generate a risk assessment and risk management plan for a special event. Apply risk reduction principles for special events.
Demonstrate the use of the law in the management of recreation and tourism agencies including land management and personnel management.
RTE 485. Events
Administration (4). This capstone course includes a study of contemporary issues within the field of event planning and coordination, basic applied evaluation, organizational development, policy formulation, human resources, inventory, and applied program and event planning. Formerly RT 485, students may not receive credit for both. Prerequisites: senior standing and a minimum of nine credits of upper division RTE coursework or permission of instructor.
Upon successful completion of this course, the student will be able to:

Analyze the purpose and vision of given meetings and events and generate appropriate missions and purposes of events
Asses the facility and other physical requirements, security risks and legal liabilities for a given event
Design a work plan that identifies personnel requirements, including volunteers, their tasks, and associated costs Select specific vendors (F \& B, photographers, printers, etc.) and be able to draw up cost sheets, functions sheets, and contracts
Create a thorough and accurate budget for an event, including payment schedules Formulate a plan to sell and market the event proposal and/or event itself
RTE 486. International Travel III (Put on reserve as of 9/16/15.) (3). Overview of selected Asia, Australia, and South Pacific destinations and their travel, tourism, hospitality, and recreation industries. Touristic importance including economic, political, population, geography, social systems, and cultural characteristics. Put on reserve as of $9 / 16 / 15$. Will go inactive $8 / 24 / 18$. Formerly RT 486, students may not receive credit for both.
Upon successful completion of this course, the student will be able to describe the following characteristics of Asia, Australia and South Pacific destination areas: Physical and climatic features Population characteristics Socio political systems, including religion Economic systems including currency and exchange Culture and traditions Major attractions and events at the IDA
Travel and tourism operators and products including transportation, hospitality and lodging, attractions, recreation

Domestic and international relations of the tourist trade Quantity and quality of tourism including impacts on residents Customs and traits of nationals as gleaned through personal contacts
Other features relevant to tourists and tourism professionals
RTE 487. Outdoor
Recreation Issues (3). This course addresses recent and breaking issues in the outdoor recreation field. The course involves readings and discussions in both the classroom and field environments. Formerly RT 487, students may not receive credit for both. Prerequisite: permission of instructor. Upon successful completion of this course, the student will be able to:
Describe the history of
Outdoor Leadership.
Identify emergency procedures used in the outdoors. Describe the three phases of risk management.
Describe leader behavior and considerations for each stage of group development.
Define emotional crisis and identify behaviors that are likely to be evident during a typical crisis found in wilderness settings. Describe the seven "Leave No Trace" principles.

## RTE 488. Recreation

 Management (4). Contemporary issues, basic applied evaluation, organizational development, policy formulation, human resources, inventory, and program planning. Formerly RT 488, students may not receive credit for both. Prerequisites: FCSG 220, senior standing, and admission to the recreation and tourism major or minor.Upon successful completion of this course, the student will be able to:
Identify principal population groups at large in the organizational service area

Identify, select and prepare physical resources for utilization as activity venues Design, write, produce and circulate appropriate media materials dependent upon target user groups Construct and administer activity/program budgets for specific agency/organizational offerings
Recruit, interview, test and select appropriately qualified leadership staff Design and implement appropriate personnel and program evaluations Organize and implement safety and risk management plans for activities to be offered to organizational clientele
RTE 490. Cooperative
Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. A learning agreement is created by the student to identify and plan the directed and supervised study under the guidance of a tourism mentor. Forty hours required per credit. May be repeated for credit. Grade will either be S or U . Formerly RT 490, students may not receive credit for both. Prerequisites: admission to the recreation and tourism major or minor, a minimum GPA of 2.25 in the major, and permission of advisor.
RTE 491. Workshop (1-6).
Formerly RT 491, students may not receive credit for both.
RTE 492. Senior Practicum
(1-10). This course is an individual, contracted field experience with business, industry, government, or social service agencies. Student have a site supervisor under the guidance of a faculty mentor. May be repeated to 10 credits. Prerequisites: admission to a recreation, tourism and event major or minor; a minimum GPA of 2.25 , and/or permission of advisor. Course will be offered every year (Fall, Winter, Spring, and Summer).

Upon successful completion of this course, the student will be able to:
Diagram the relationship of the department in which you reside to the larger organizational structure
Outline the aims and purposes of the organization; type of ownership; mission statement; and funding structure Describe the primary responsibilities, functions, facilities, and activities of the department/division to meet the organization's mission, aims and purpose Produce at least two work products that you designed, developed, managed, or implemented with a brief explanation of each and your role in generating the product Create a SWOT analysis that identifies the strengths, weaknesses, opportunities, and threats to your organization Reflect on your experience. Specifically, assess what you found rewarding, areas you need to improve; program course content you found critical
RTE 496. Individual Study (1-6). Formerly RT 496, students may not receive credit for both.
RTE 497. Honors (1-12). Prerequisite: admission to department honors program.
RTE 498. Special Topics (1-
6). Formerly RT 498, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Describe the five most important elements in survival present the five elements and their mastery of each.
Apply practical skills in dealing with the elements of survival, demonstrate mastery of skills in shelter building, water purification, fire making, and selecting food.
Articulate survival skill
development to self-esteem Present and write a selfanalysis of what the student learned, beyond basic skill development.

Understand the connection between survival skills development and nature. Present and write a selfanalysis of what the student learned, beyond basic skill development.
RTE 499. Seminar (1-5). Formerly RT 499, students may not receive credit for both.
RTE 222A. Recreation Programming and Activities
(3). The essential skill of recreation programming will be developed. Games and activities appropriate for playgrounds, camps, and community centers are learned, along with socialization, education, trust building and outdoor adventure. RTE 222A and RTE 222 are equivalent courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Demonstrate programming in class and in practical situations Plan and develop a program from conceptualization to implementation Demonstrate, plan, and lead a game or adventure activity Identify the fundamentals of play leadership
Demonstrate concern for safety or self and others Modify a game for a specific identifiable population RTE 373A. Supervision in the Hospitality Industry (3). Basics of supervising programs, personnel, and facilities with emphasis on practical supervisory skill development. Formerly RT 373 A , students may not receive credit for both.
RTE 373D. Convention and Meeting Management (5). Students will be presented with the mechanics of planning and managing meetings and conventions of a business nature. Formerly RT 373D, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
Identify potential markets for business meetings and conventions; know their needs; and formulate content and schedules suited to a particular audience.
Identify the suppliers or agencies who provide meeting planning services (e.g. convention centers, hotels, corporate meeting planning agencies) and their products, especially sites.
Identify specific personnel in companies, associations, and the public who arc buyers of meeting and conference products and services. Outline the basic steps in planning a meeting, including registrations, technology needs, associated risks, management of resources (HR, financial, contractual).
Compose a budget suitable to a particular meeting.

## RTE 373E. Resort

Management (5). Presentation of management topics applied to the hospitality industry. Formerly RT 373E, students may not receive credit for both.
RTE 393A. Leisure Service Agency Visitations: Public Recreation Agencies (1-3).
Field visits, usually from two to three days in duration. Review of facilities, programs, and clientele with agency leader/supervisor/manager. May be repeated for credit under different subtitle. Formerly RT 393A, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Understand the specific objectives of the visitation and prepare for the visitation.
Participate fully in the visitation.
Relate the experiential learning to classroom experiences.
RTE 393M. Leisure Service Agency Visitations:
Community Centers (1-3).
Field visits, usually from two to three days in duration.

Review of facilities, programs, and clientele with agency leader/supervisor/manager. May be repeated for credit under different subtitle. Formerly RT 393M, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Understand the specific objectives of the visitation and prepare for the visitation. Participate fully in the visitation.
Relate the experiential learning to classroom experiences.

## RTE 393N. Rt

Vis:Destinations (1-3). Field visits, two to three days in duration. Review of facilities, programs and clientele with agency
leader/supervisor/manager.
May be repeated for credit under different titles. May be repeated up to 3 credits. Formerly RT 393N, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Describe tourist motivations for visiting a specific destination
Demonstrate an in depth knowledge of a specific destination and the suppliers of tourism products at that destination
Assess the performance of a specific destination brand and make recommendations for further tourism development and promotion
RTE 393Q. Leisure Service
Agency Visitations:
Transportation (1-3). Field visits, usually from two to three days in duration. Review of facilities, programs, and clientele with agency leader/supervisor/manager. May be repeated for credit under different subtitle. Formerly RT 393Q, students may not receive credit for both. Upon successful completion of this course, the student will be able to:

Understand the specific objectives of the visitation and prepare for the visitation. Participate fully in the visitation.
Relate the experiential learning to classroom experiences.

## RUSS 151. First-year

Russian (5). Conversational approach with intensive oralaural drill. Firm foundation in basic structural principles of the language. Courses must be taken in sequence.

## RUSS 152. First-year

Russian (5). Conversational approach with intensive oralaural drill. Firm foundation in basic structural principles of the language. Courses must be taken in sequence. Prerequisite: RUSS 151.
RUSS 153. First-year
Russian (5). Conversational approach with intensive oralaural drill. Firm foundation in basic structural principles of the language. Courses must be taken in sequence. Prerequisite: RUSS 152.
RUSS 200. The Art of the Protest: Censorship and Resistance in Russian
Culture (5). The course examines artistic practices that engage in political and cultural protest in Russia, with a focus on books, films, arts and media censored by the state. The course is taught in English. Course will not have an established scheduling pattern. Formerly RUSS 311, students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Recognize resistant artistic practices in Russia in different historical and cultural contexts and in variety of media. Identify various cultural, political and social factors that contribute to censorship in Russia in different historical and cultural contexts. Demonstrate knowledge of the relationship between arts and political power in Russia in different historical and cultural contexts.

Analyze and interpret primary sources (literary texts, films, art pieces).
Relate primary sources to the examined secondary sources(scholarly articles). Generate cultural analysis of a chosen censored text (a literary text, film or an art piece) in its political and cultural context.
RUSS 251. Second-year
Russian (5). Thorough review of Russian grammar and graduated readings in Russian prose and poetry with discussions conducted in Russian. Courses must be taken in sequence.
RUSS 252. Second-year
Russian (5). Thorough review of Russian grammar and graduated readings in Russian prose and poetry with discussions conducted in Russian. Courses must be taken in sequence. Prerequisite: RUSS 251.
RUSS 253. Second-year
Russian (5). Thorough review of Russian grammar and graduated readings in Russian prose and poetry with discussions conducted in Russian. Courses must be taken in sequence. Prerequisite: RUSS 252.
RUSS 298. Special Topics (16).

RUSS 299. Seminar (1-5).
May be repeated if subject is different.
RUSS 341. Advanced
Russian I (4). Study of
Russian to target all four
language skills, with emphasis on communicative competence, reading comprehension, study of grammar, composition and stylistics via written and oral analysis of authentic texts. Prerequisite: RUSS 253 or permission of instructor. Upon successful completion of this course, the student will be able to:
Demonstrate strong communicative competence in predictable everyday situations, based mostly on
reactive language use

Use low- to mid- intermediate level of vocabulary and grammar appropriately, orally and in writing, most of the time Identify and recognize some information from sentencelength speech, one utterance at a time, in authentic personal and social contexts Demonstrate complete understanding of short noncomplex authentic texts and limited understanding of complex authentic texts featuring description and narration
Demonstrate a strong ability to write in the present tense with limited control of the aspect, and limited ability to write in different time frames Identify salient cultural features in the context of everyday predictable situations

## RUSS 342. Advanced

Russian II (4). Study of
Russian to target all four language skills, with emphasis on communicative competence, reading comprehension, study of grammar, composition and stylistics via written and oral analysis of authentic texts. Prerequisite: RUSS 341 or permission of the instructor. Upon successful completion of this course, the student will be able to:
Demonstrate strong
communicative competence in predictable everyday situations and limited communicative competence in spontaneous, unscripted situations. Use low to mid intermediate level of vocabulary and grammar appropriately, orally and in writing, most of the time, and high intermediate level vocabulary and grammar in a limited way.
Identify and recognize most information from sentencelength speech, one utterance at a time, in authentic personal and social contexts. Demonstrate complete understanding of short noncomplex authentic texts and correctly identify salient
features of complex authentic texts.
Use intermediate to advanced stylistic and rhetorical devices in writing in a limited way. Demonstrate a moderate ability to write in different time frames with limited control of the aspect.
Identify salient cultural features in the context of everyday situations and in complex oral and written texts in a limited way.

## RUSS 351. Advanced

## Russian Through Literature

(5). Advanced study of Russian with emphasis on advance reading and writing skills, and mastery of spoken Russian, through study of authentic literary texts. Course will be offered on even numbered years (Fall).
Upon successful completion of this course, the student will be able to:
Recognize and reproduce advanced grammatical constructions found in high literary language.
Generate accurate translations of select literary works from Russian to English. Evaluate and analyze literary texts from the perspectives of translation and literary studies in written modality. Apply knowledge of literary language and grammar in conversational context. Formulate and express a range of ideas in oral modality. Value and practice cultural awareness through understanding the context of Russian literary culture of the 19th and 20th centuries.
RUSS 396. Individual Study
(1-6). May be repeated if subject is different.
RUSS 397. Honors (1-12). Prerequisite: admission to department honors program. RUSS 398. Special Topics (16). RUSS 399. Seminar (1-5). May be repeated if subject is different.
RUSS 441. Advanced
Composition and Grammar (4). Advanced study of Russian
grammar, composition and stylistics via written and oral analysis of authentic texts. Prerequisite: RUSS 342 or permission of the instructor. Upon successful completion of this course, the student will be able to:
Demonstrate strong communicative competence in predictable everyday situations and moderate communicative competence in spontaneous, unscripted situations Use high-intermediate level of vocabulary and gramma r appropriately, orally and in writing, most of the time Identify and recognize salient features of the information presented in sentence-length speech, in an uninterrupted dialogue or monologue, in authentic personal and social contexts
Demonstrate complete understanding of simple authentic texts and moderate understanding of complex authentic texts
Use intermediate to advanced stylistic and rhetorical devices in writing most of the time Demonstrate a strong ability to write in different time frames with some control of the aspect Demonstrate an ability to write in a variety of formats (retelling, descriptive and analytical compositions, argument, summary and review)
Demonstrate a moderate ability to identify salient features in complex oral and written texts RUSS 445. Topics in Russian Language (2). This course is based on a systematic and functional approach to Russian grammar; from morphology to syntax and text. May be repeated up to 10 credits. Prerequisite: permission of instructor.
Upon successful completion of this course, the student will be able to:
Identify and correctly utilize advanced grammatical and morphological concepts in Russian.

Express complex ideas orally in Russian.
Express complex ideas in writing in Russian.
RUSS 451. Advanced
Russian Conversation and
Composition (5). The course focuses on conversational practice and composition writing. Learning with authentic Russian materials, students will be able to advance their speaking and writing skills, express complex ideas, and achieve advanced communicative and intercultural competence. Course will be offered on even numbered years (Spring). Prerequisite: RUSS 342 or permission of the instructor. Upon successful completion of this course, the student will be able to:
Recognize and use in written text and in speech advanced level grammatical concepts and constructions (such as verbs of motion, aspectual pairs, conditional and hypothetical constructions, complex sentence, case system in relation to verbs and prepositions).
Demonstrate in-depth understanding of the content of authentic Russian texts and their cultural context. Analyze authentic Russian texts from the perspectives of content and form both in written and oral modalities. Formulate and express a range of ideas in spoken Russian: from descriptive narration and characterization to argumentation and critical analysis.
Value and practice cultural awareness and communicative competence in the context of Russian culture and use the knowledge acquired in the course to recognize and understand cultural diversity.
RUSS 462. Russian Cinema
(4). Explores the cultural and historical context of Soviet and post -Soviet film, including exchanges between art and politics, expressions of national identity, depictions of
ethnicity, gender and class, and the development of cinematic institutions. Department reactivated winter 2016. Upon successful completion of this course, the student will be able to:
Identify salient issues in the historic evolution of Russian cinema.
Recognize various genres and tropes of film language and form.
Critically analyze films from the standpoint of cultural context and cinematic techniques. Identify and interpret the cultural, political and social impact of Russian cinema on Russian society.
Recognize and interpret the significance of international cinematic context for the development of Russian cinema.

## RUSS 496. Individual Study

 (1-6).RUSS 497. Honors (1-12).
Prerequisite: admission to department honors program.
RUSS 498. Special Topics (1-
6 ). May be repeated if subject is different.
RUSS 499. Seminar (1-5). May be repeated if subject is different.

## SCED 101. Integrated Life

Science (5). Inquiry-based investigations into life science to help students develop understanding of fundamental concepts and the process of scientific investigation. This course is designed for prospective elementary teachers but is open to all students. Formerly BIOL 106, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern.
Upon successful completion of this course, the student will be able to:
Collaboratively design, collect and analyze data, and present results of a communityrelevant life science research project,

Describe and explain fundamental concepts and practices in life science, specifically those underlying a) Ecosystems and ecological sustainability, b) Cell structure and processes, c) Heredity, c) Biological Evolution Apply life science concepts and processes to personal, local and societal issues around sustainability. Critically analyze and evaluate evidence and use this to develop and defend positions on contemporary life science issues.

## SCED 102. Integrated Earth

 and Space Science (5).Inquiry-based investigations in Earth and space science to
help students develop understanding of fundamental concepts and the process of scientific investigation. Designed for prospective elementary and middle-level teachers, but open to all students. Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to:
Apply appropriate scientific investigative techniques to address questions about relevant Earth and space science concepts. Collect, analyze, and interpret quantitative and qualitative data to address questions about relevant Earth and space science concepts. Apply Earth and space science concepts and processes to personal and societal issues. Articulate how your own ideas and understanding change and develop, and how the structure of the learning environment and curriculum facilitates these changes.
Find and utilize a variety of resources to learn and communicate about Earth and space science events and processes.
SCED 103. Integrated
Physical Science (5). Inquiry-
based investigations into physical science to help students develop understanding
of fundamental concepts and the process of scientific investigation. This course is designed for prospective K-8 teachers but is suitable for all students. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Formulate questions and apply appropriate scientific investigative techniques to address questions about relevant physical science concepts such as structure and properties of matter; chemical reactions; forces and interactions; energy; electromagnetic radiation; and matter and energy in systems. Apply mathematical and quantitative reasoning to collect, analyze, and interpret data to address questions about relevant physical science concepts such as those listed above.
Describe how physical science concepts and processes affect the lives of people. Identify social, political, and ethical implications of physical science discoveries and associated technical advances. Use physical science concepts and practices to identify and address a community issue.
SCED 201. Introduction to STEM Teaching and
Learning (3). Explore the implications of science and mathematics learning theories and practices on individual learning, classroom learning, and within the context of society. Prerequisite: one course with a prefix of ANTH, BIOL, CHEM, ENST, GEOG, GEOL, MATH, or PHYS.
Upon successful completion of this course, the student will be able to:
Identify the rules of the game by completing the Washington Official Association (WOA) exam.
Analyze and differentiate hand mechanics of football.
Analyze and differentiate hand mechanics of soccer.

Recognize the proper codes of conduct and hand mechanics of football in real-game situations.
Recognize the proper codes of conduct and hand mechanics of soccer in real-game situations. Demonstrate professionalism by attending at least two WOA meetings.
SCED 215. STEM Outreach
Field Experience (1-2).
Applied field experience in communication and teaching science, technology, engineering, and mathematics (STEM) concepts to children. Involves planning and conduction demonstrations, lessons, and activities. Outreach outside of class time is required. May be repeated up to 4 credits. Prerequisites: 2 courses with a prefix of ANTH or BIOL or CHEM or ENST or GEOG or GEOL or MATH or PHYS or SCED.
Upon successful completion of this course, the student will be able to:
Utilize science, technology, engineering or mathematics content and skills knowledge to plan and teach demonstrations, lessons, and activities.
Use probing questions to elicit
feedback to determine
children's acquisition of
knowledge.
Employ effective
communication skills while
teaching STEM lessons.
SCED 298. Special Topics (1-
6). May be repeated if subject is different.
SCED 299. Seminar (1-5).
May be repeated if subject is different.
SCED 301. Interdisciplinary Science and Engineering Inquiry (5). Interdisciplinary investigation of applied life, physical, and Earth science concepts applicable to K-12 classrooms using integrated contexts. Applied inquiry processes are used to increase student knowledge, skills, and dispositions. Six lecture/lab hours per week. Prerequisite: junior standing or above.

Upon successful completion of this course, the student will be able to:
Describe and explain a variety of life, physical, and earth
science concepts important for K-8 teachers.
Design and implement experiments using investigative processes.
Use computers and related technologies to gather and analyze data.
Analyze, interpret, and present data using quantitative reasoning including graphs, tables, and charts.
Integrate life, physical, and earth science concepts with investigative processes. Work in small groups to solve complex problems.
Form opinions based on scientific evidence and defend positions using written and oral methods.

## SCED 305. The Story of

Science (5). Study of how knowledge evolves as people interact with each other and their environment. Behaviors and interactions will be analyzed in the context of episodes in science. Course will be offered every year. Course will not have an established scheduling pattern.
Prerequisite: Sophomore standing or above. Upon successful completion of this course, the student will be able to:
Identify basic principles and institutions upon which scientists base their work. Describe how scientists work together and work with individuals outside the field of science to study the natural world.
Explain and apply the case study method to summarize and analyze episodes in science.
Analyze how scientists respond to prevailing social, cultural, and scientific pressures. Describe specific key episodes in the history of science. Define sustainability and explain how scientists throughout history have
applied the notion of sustainability to their work. Explain how the actions of various scientists impact issues of sustainability at the local and global levels.
SCED 311. Science Concepts
for Teachers (5). An in-depth examination for the science concepts applicable to K-12 classrooms using an individualized and inquirybased approach. Online and community recourses are utilized to enhance existing science content knowledge and understanding.
Upon successful completion of this course, the student will be able to:
Describe and explain the scientific concepts and processes necessary and important to K-12 science teaching
Describe and evaluate individual areas of strength and weakness in the knowledge and understanding of science content applicable to K-12 science teaching
Identify and utilize appropriate library, online, community and professional resources to inform science content knowledge and understanding in selected areas
Design and implement an individualized science knowledge development plan Demonstrate new content knowledge and understanding in science
Identify and demonstrate connections between prior knowledge and new ideas in science
Analyze, interpret, and present scientific data in a variety of formats (e.g., maps, graphs, tables, and charts)
Incorporate and synthesize basic science knowledge into explanations of larger scientific issues and ideas (e.g., climate change, ocean acidification, resource conservation, alternative energy, genetic and medical technologies)
SCED 320. Genetics and Cell Biology Concepts (5).
Integrated exploration of
genetics and cell biology concepts including chemical and molecular basis of life, energy transformations, cells in context, genetic patterns of inheritance, molecular genetics, and cell division. Course will be offered on even numbered years. Course will not have an established scheduling pattern. Prerequisites: (SCED 101 or BIOL 181 or BIOL 101) AND (SCED 103 or CHEM 101 or CHEM 111 or CHEM 181).
Upon successful completion of this course, the student will be able to:
Develop problem solving skills including ability to identify and clarify a problem, gather and evaluate information, consider alternatives, reflect and improve problem solving effectiveness.
Persuasively argue the scientific, economic, and ethical ramifications of genetic and cell biology information and their role in modern society.
Analyze data for patterns of inheritance, molecular basis of heredity, and biological function at cellular level. Integrate molecular and genetic processes into cellular context and processes including chemical and molecular foundations of life, energy transformations, cell context and signaling, cell cycle, mitosis, and meiosis. Infer how intra/extracellular interactions affect cell structure, function, and genetic behavior.
Work collaboratively to solve problems, analyze patterns, and draw logical conclusions based on data.

## SCED 322. Science

Education in the Elementary
School (4). Techniques, selection of materials and appropriate subject matter for the various grade levels. Demonstrations and student investigative activities for use in classroom science teaching. Prerequisite: current WSP/FBI fingerprint clearance, and
conditional or full admission to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Develop and teach a science lesson to elementary students using the learning cycle method.
Demonstrate understanding of the scientific method.
Appropriately assess student learning by developing and appropriately applying assessments that measure student learning outcomes relative to standards.
Use safe practices when teaching science.
Adapt existing curricula and resources to age-appropriate lessons using best teaching practices.
Demonstrate effective questioning skills to guide students in hands-on exploration.
Integrate science lessons with other subjects.
Align curricular materials to specific benchmarks such as NSES, WA EALRs and WA GLEs.
SCED 324. Science
Education in Middle and Secondary Schools I (3). Methods, techniques, and materials appropriate for teaching science in secondary schools. Curriculum, planning, and experiments for use in teaching. Prerequisites: EFC 330 and SCED 301, current WSP/FBI fingerprint
clearance, and admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Demonstrate applied understanding of contemporary science teaching issues. Critically analyze and evaluate science teaching best practices. Develop and teach a science lesson to secondary students using the learning cycle method.
Adapt existing curricula and resources to align with teaching best practices.

Demonstrate effective questioning skills to guide students in hands-on exploration and develop K-12 student critical thinking. Formatively and summatively assess K-12 student learning and adapt teaching based on learning performance data. Integrate science lessons with other subjects (e.g. technology, literacy) and show working knowledge of professional competencies and standards.

## SCED 325. Science

Education in Middle and Secondary Schools II (3). Applied field experience for teaching science in secondary schools. Planning, instruction, and management for teaching science. Enrollment is subject to full admission to the Professional Education Program. Prerequisites: SCED 324, admission to the Teacher Certification Program, and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Demonstrate applied understanding of contemporary science teaching issues. Formatively assess K-12 prior knowledge and adapt instructional planning and lessons based on results. Develop and teach a science lesson to secondary students using the learning cycle method.
Adapt existing curricula and resources to align with teaching best practices. Demonstrate effective questioning skills to guide students in hands-on exploration and develop K-12 student critical thinking. Assess student characteristics that may influence teaching and learning culture and community and plan to accommodate individual differences in learning. Use federal functional behavioral assessment guidelines to analyze student behavior and implement
positive behavioral intervention.
Establish student learning and behavioral expectations, routines and procedures within the context of inquiry science classrooms.
SCED 330. Marine Science for Teachers (5).
Interdisciplinary investigation of the environments and organisms of the Pacific Northwest Coast. Course will not have an established scheduling pattern. Prerequisites: two courses with the prefix BIOL or CHEM or ENST or GEOL or PHYS. Upon successful completion of this course, the student will be able to:
Describe coastal environments of the Pacific Northwest and the typical biological communities associated with each
Identify geological, chemical, and physical influences upon the biotic communities of the northwestern marine environment
Summarize anthropogenic influences upon the marine environments of the Pacific Northwest and assess possible long-term impacts on biological communities Summarize primary literature on a selected group of marine organisms
Demonstrate competence in methods of marine fieldwork and coastal research Collect, analyze, and interpret data on a pertinent marine issue
Describe and evaluate opportunities for continuing education in marine science
SCED 354. Science, Society and the Teaching Community (3). Teacher candidates will learn the nature and context of science, compare science with other ways of knowing, describe the relationship between science and the community, gain skills in integrating community resources with the classroom. Prerequisite: current WSP/FBI fingerprint clearance, and
admission to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Describe the values, beliefs and assumptions inherent to the creation of scientific knowledge within the scientific community.
Contrast science to other ways of knowing.
Explain the nature of scientific inquiry including limitations of science, dealing with inconsistencies, evaluating methods of investigation, and evolution of scientific ideas. Apply science concepts and methods to the daily lives of school children and to the larger framework of human understanding.
Appropriately use community resources in a secondary school classroom.
Use science-related civic engagement as a curricular tool and as a means to serve their community.
SCED 392. Science Teaching
Practicum (1). Clinical
practice and application of skills and competencies necessary for teaching science. May be repeated up to 3 credits. Prerequisites: SCED 201 or 301; current WSP/FBI fingerprint clearance, and admission to the Teacher Certification Program. Corequisites: SCED 324, SCED 325, or SCED 487. Upon successful completion of this course, the student will be able to:
Develop and teach science lessons to secondary students using the learning cycle method.
Demonstrate effective questioning skills to guide students in hands-on exploration and develop critical thinking. Demonstrate effective assessment skills to evaluate students for giving appropriate fedback and making datadriven teaching decisions.

SCED 396. Individual Study
(1-6). May be repeated if subject is different.
SCED 397. Honors (1-12).
Prerequisite: admission to department honors program.
SCED 398. Special Topics (16).

SCED 399. Seminar (1-5).
May be repeated if subject is different.
SCED 411. Field Experience in Communicating Science to the Public (2). Applied field experience in communicating science to the public. Methods, techniques, materials, and practices for effective communication of scientific ideas, and methods. SCED 411 and SCED 511 are layered courses, students may not receive credit for both. May be repeated up to 4 credits. Prerequisite: senior standing. Upon successful completion of this course, the student will be able to:
Analyze the issues surrounding public science communication at local and national scales Demonstrate effective communication skills in the context of scientific content and process
Work collaboratively with community stakeholders to develop and implement a project that teaches science to a group of non-scientists (e.g., K-12 or adult)
SCED 422. Advanced Teaching Strategies in Elementary Science (3). Further develop knowledge and skills of elementary science teaching with a particular emphasis on the science inquiry process, assessment of student knowledge and cross-curricular integration.
Prerequisite: SCED 322.
Upon successful completion of this course, the student will be able to:
Evaluate published science curricula such as kits. Develop and use alternative assessments such as checklists, interviews, concept maps and drawings.

Describe and use a variety of science content standards such as Next Generation Science Standards.
Illicit, summarize and remedy student science misconceptions.
Develop a faculty for doing action research.
SCED 487. Teaching Middle and Secondary Science Seminar (2). Students compile knowledge, skills, and dispositions evidence and reflect on performance relative to professional standards. Students discuss current secondary science education issues, participate in program assessment, prepare for endorsement exam, and complete an electronic portfolio. Prerequisite: students must plan to teach within a year of enrolling in this course. Upon successful completion of this course, the student will be able to:
Identify examples of their own work that demonstrate competency in science content and teaching knowledge, skills, and disposition achievement. Reflect upon and articulate progress as teacher, learner, and professional. Investigate, summarize, and apply current research in science education.
Prepare to take WEST-E in endorsement area. Assess the effectiveness of secondary science education program for candidate preparation. Build professional skills for entering the teaching profession.
SCED 491. Workshop (1-6). SCED 492. Teaching Middle School Mathematics and Science (2). Prospective teachers will learn and use the methods and materials needed to teach middle school students mathematics and science with emphasis on the use of experiments, manipulatives, problems solving, cooperative learning, and communication of understanding. By permission. Formerly SCED

323, students may not receive credit for both. Prerequisite: MATH 324 or EDEL 323 or SCED 324 or SCED 322, current WSP/FBI fingerprint clearance, and application to the Teacher Certification Program.
Upon successful completion of this course, the student will be able to:
Develop and teach integrated math and science lessons to middle level students using effective methods and appropriate measurement technology that support student inquiry.
Use safe practices when teaching "hands-on" science and mathematics by having awareness when developing, presenting, and participating in science and mathematics activities; and listing appropriate safety precautions that students should take before performing science and/or mathematics.
Adapt existing and create new curricula and resources into age-appropriate lessons using best teaching practices by researching curricula and resources related to specific NGSS and Common Core benchmarks and adapting these materials to specific learning needs.
Demonstrate effective questioning techniques to both assess and guide students in "hands-on" exploration and constructing knowledge by developing questions that guide students from observations to experimental results to logical conclusions through inquiry and critical thinking.
SCED 495. Science
Education Research (1-3).
This course introduces preservice science teachers to qualitative and quantitative methods of action research. Course requires completion of a research project of the student's design. May be repeated up to 6 credits. Prerequisite: current WSP/FBI fingerprint clearance, and
admission to the Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Select an appropriate question to study in a science laboratory setting, design that study, collect and analyze the data, and produce a short report. Reflect on the usefulness, challenges, and importance of conducting science education research.

## SCED 496. Individual Study

 (1-6).SCED 497. Honors (1-12).
Prerequisite: admission to department honors program.
SCED 498. Special Topics (1-
6). May be repeated if subject is different.
SCED 499. Seminar (1-5).
May be repeated if subject is different.
SCM 298. Special Topics (1-
6). May be repeated if subject is different.
SCM 299. Seminar (1-5). May be repeated if subject is different.

## SCM 302. Supply Chain

Bootcamp (2). A detailed examination of current industry supply chains supporting manufacturing and service sectors. Includes supervised field experience, analysis education, training, and business skills application in industry setting. Grade will be S or U . May be repeated up to 4 credits. Prerequisites: prebusiness declaration and 2.75 collegiate GPA or instructor permission.
Upon successful completion of this course, the student will be able to:
Describe the entitles associated with a particular industry supply chain. Identify the key relationship and performance factors that affect the performance of industry supply chains. Discuss the role of particular organizations and organizational processes affecting the performance of industry supply chains.

Diagram the interactions among organizations in an industry supply chain. Analyze the impact of individual organizations on overall supply chain dynamics.

## SCM 310. Supply Chain

 Management (5). Adoption of a supply chain orientation toward business management which emphasizes the interfunctional and inter-firm relationships that contribute to improving coordination of operations and performance of organizations that participate in various types of supply chains. Supply Chain Management certificate students also need permission from the department chair to enroll. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: (BUS 221 and ECON 201 and admission to a College of Business major); OR (BUS 221 and ECON 201 and declaration of a Supply Chain Management minor); OR (Declaration of Supply Chain Management certificate and permission of department chair) OR (admission to a College of Business Graduate Program): OR (BUS 221 and ECON 201 and admission to the Integrated Energy Management Program). Upon successful completion of this course, the student will be able to:Describe the typical structure and processes associated with supply chains in different product and service oriented industries
Explain the concept of "Supply Chain Orientation" and how it is relevant to decision making throughout organizations Select appropriate quantitative and qualitative models used to make decisions related to forecasting, inventory management, production planning, service and other supply chain related activities Diagram and explain processes associated with lean and six sigma operations improvement practices

Propose the most appropriate general supply chain strategy based on product, market, service and operational consideration
Construct basic process maps for different supply chain related processes related to purchasing, operations, distribution and customer relationship activities Discuss current events affecting local, national and global supply chain operations and organization performance Evaluate the impact of demand variation on operations and performance in different supply chains Compare how different supply chain operating alternative affect service and financial performance of an organization.
Estimate the impact of different supply chain related operating tradeoffs on service, operational performance and financial performance

## SCM 396. Individual Study

(1-6). May be repeated if subject is different.
SCM 397. Honors (1-12).
Prerequisite: admission to department honors program.
SCM 398. Special Topics (1-
6). May be repeated if subject is different.
SCM 399. Seminar (1-5). May
be repeated if subject is different.
SCM 420. Lean/Six Sigma
Processes (5). Development
and deployment of Lean Management and Six Sigma management techniques in a manufacturing and supply chain environment. Formerly SCM 324, students may not receive credit for both. SCM 420 and SCM 520 are layered courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: BUS 221 OR by permission of FSCM department chair. Upon successful completion of this course, the student will be able to:

Demonstrate the use of process maps for a new process. Design a data collection plan, collect and measure the data and analyze the data.
Design a poster to encapsulate the lean / six sigma project. Select a viable solution amongst many alternatives and logically defend it.
SCM 425. Procurement and Supply Management (5). Purchasing processes, procurement cycle analysis, research to support purchasing decisions, supplier relationship development and management, negotiations, commodity planning, costing, pricing, and value analysis related to the purchasing of products and services. Course will be offered every year (Fall and Spring). Prerequisites: SCM 310 with a minimum grade of C AND admission to a College of Business Major; AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (SCM 310 with a minimum grade of C AND declaration of a Supply Chain Management minor or certificate); OR (SCM 310 with a minimum grade of C and admission to the Bachelor of Applied Science in Supply Chain Management Program); OR (SCM 310 with a minimum grade of C AND admission to the Integrated Energy Management Program). Upon successful completion of this course, the student will be able to:
Discuss the stages and activities involved in supplier evaluation and selection. Identify and classify the different types of purchases necessary to support organizational and supply chain operations. Distinguish among the different approaches to quality
management and their role in procurement and supply management decisions. Assess the appropriateness of alternative purchasing and supply management strategies. Organize the stages and activities involved in supplier evaluation and selection. Apply tools and methods associated with the strategic sourcing process. Describe a framework used to help organize supplier negotiations and will be familiar with important elements that influence the negotiations process. Explain the primary elements contained in a supplier contract.
SCM 435. Supply Chain
Operations (5). Advanced methods and models for planning, management, and decision making involving aspects of supply chain management operations including inventory, transportation, location, purchasing, and other related analyses. Emphasizes integration and coordination of resources for productivity improvement. Course will be offered every year (Fall and Winter). Prerequisites: SCM 310 with a minimum grade of C AND admission to a College of Business Major; AND completion of the College of Business Foundation courses (ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201)
with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (SCM 310 with a minimum grade of C AND declaration of a Supply Chain Management minor or certificate); OR (SCM 310 with a minimum grade of C and admission to the Bachelor of Applied Science in Supply Chain Management Program); OR (SCM 310 with a minimum grade of C AND admission to the Integrated Energy Management Program).

Upon successful completion of this course, the student will be able to:
Apply common quantitative methods for the analysis of operations related to purchasing, inventory, management, manufacturing, distribution and related functions.
Employ existing models designed to solve more complex problems related to purchasing, inventory management, manufacturing, distribution and related functions.
Explain how different operational tools and management concepts may be used to address real world problems associated with common case scenarios in product and service supply chains.
Identify and discuss current issues affecting operational decisions in product and service-related industries.

## SCM 450. Logistics and

Transportation (5). Logistics activities associated with warehousing and distribution of materials, sub-assemblies and finished good. Transportation mode and service assessment, selection, economics, policy and governmental regulation. Carrier selection and management. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: SCM 310 with a minimum grade of C AND admission to a College of Business Major; AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (SCM 310 with a minimum grade of C AND declaration of a Supply Chain Management minor or certificate); OR (SCM

310 with a minimum grade of C and admission to the Bachelor of Applied Science in Supply Chain Management Program); OR (SCM 310 with a minimum grade of C AND admission to the Integrated Energy Management Program). Upon successful completion of this course, the student will be able to:
Describe the activities most commonly associated with logistics and transportation processes in firms. Compute and interpret common performance measures associated with transportation and inventory management.
Distinguish among the capabilities, operating requirements and costs of the various transportation modes and warehousing options. Choose the most effective operations configuration among alternatives based on tradeoffs related to transportation modes, inventory options, customer service requirements and financial goals.
Rate the best facility locations based on quantitative and qualitative characteristics associated with logistics and transportation activities. Explain the purpose and requirements associated with various forms of logistics and transportation documentation. Describe the different types of systems used for managing logistics and transportation processes more effectively.
Assess how logistics and transportations decisions and tradeoffs will change when considering larger supply chain related objectives.
Calculate inventory and distribution requirements needed to achieve specific service objectives.
SCM 475. Global Trade and Supply Chain Management (5). Global supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer
service, materials handling, packaging, and information. Analysis of product and service delivery and the associated trade, cultural, and legal factors and influences. Course will be offered every year (Fall, Winter, and Spring).
Prerequisites: SCM 310 with a minimum grade of C AND admission to a College of Business Major; AND completion of the College of Business Foundation courses
(ACCT 251 and ACCT 252 and BUS 221 and BUS 241 and MATH 153 or MATH 154 or MATH 170 or MATH 172 or MATH 173 and ECON 201) with a minimum C- grade in each course and a minimum collegiate GPA of 2.25) OR (SCM 310 with a minimum grade of C AND declaration of a Supply Chain Management minor or certificate); OR (SCM 310 with a minimum grade of C and admission to the Bachelor of Applied Science in Supply Chain Management Program); OR (SCM 310 with a minimum grade of C AND admission to the Integrated Energy Management Program). Upon successful completion of this course, the student will be able to:
Distinguish between alternative modes of transportation for global commerce given a set of circumstances including geography, infrastructure requirements, market factors, and service requirements. Select alternative methods to enter an international market given scenarios related to market conditions, corporate strategy, product requirements and support structure. Apply the appropriate methods of payment for international transactions given scenarios related to risk, financial conditions, and transaction requirements.
Organize the various documents required to support the global movement of products and service between countries.

Explain the particular market, economic, governmental, demographic, infrastructure, and other factors related to a particular country or regional area.

## SCM 480. Supply Chain

Strategy (5). Integration of
concepts learned throughout supply chain curriculum into a combined analysis of comprehensive cases incorporating strategic and tactical decision making throughout the supply chain planning and implementation process. Prerequisites: (SCM 310 and SCM 435 with a minimum grade of C) AND (SCM 425 and SCM 475). One of SCM 425 or SCM 475 can
be taken concurrently to SCM 480. Admission to a College of Business major or declaration of a Supply Chain
Management minor or certificate OR admission to the Integrated Energy Management Program.
Upon successful completion of this course, the student will be able to:
Assess and make a preliminary diagnosis of potential management and operational challenges.
Employ analytical and decision support tools to evaluate complex business scenarios. Communicate their approach to analysis and recommendations involving complex case scenarios.
Demonstrate their ability to develop appropriate policies to guide operations and supply chain management activities and decisions.
SCM 490. Supply Chain Management Internship (1-
12). An individualized, contracted field experience with business, industry, government, or social service agencies focusing on Supply Chain Management related activities. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By department permission. May be
repeated up to 20 credits. Grade will either be S or U . Course will not have an established scheduling pattern. Prerequisite: 2.8 or higher CWU cumulative gpa. Upon successful completion of this course, the student will be able to:
Apply learning in professional workplace environment Demonstrate professional behavior in the workplace Substantive discipline-based outcomes developed by individual students in consult with faculty advisor
SCM 492. Lean Six Sigma
Practicum (5). Applies tools and techniques for lean and six sigma process improvement in an industry project
environment. Students work in teams with faculty and industry mentor to define, measure, analyze, improve and when possible implement control mechanisms. Course will be offered every year.
Prerequisite: SCM 420 with a minimum grade of $B$.
Upon successful completion of this course, the student will be able to:
Apply the DMAIC process to a business process improvement project.
Define a business problem, improvement activity, opportunity for improvement and project goals associated business process improvement project.
Measure the performance of a process.
Analyze a process to determine route causes of poor performance and variation. Propose process changes that may be implemented to eliminate root cause performance deficiencies. Design the control factors that will help to evaluate and control for on-going process improvement.
Apply various lean and six sigma analysis and management techniques that can result in the improved performance of one or more business processes.

SCM 493. Supply Chain Boot
Camp (1-6). Supervised field experience seminar focused on supply chain
related organizations and processes. On-location industry engagement. Education, training, and business skills application in industry setting. May be repeated up to 6 credits. Permission of instructor. Grade will either be S or U. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Prepare a research brief on each organization participating in the boot camp Exhibit professional behavior and appropriate business skills in industry setting. Establish a professional network within the industry professionals
Illustrate an awareness of the organization(s) participating in the boot camp.
SCM 496. Individual Study
(1-6). May be repeated if subject is different.
SCM 497. Honors (1-12).
Prerequisite: admission to department honors program.
SCM 498. Special Topics (1-
6). May be repeated if subject is different.
SCM 499. Seminar (1-5). May
be repeated if subject is
different.
SCM 310A. Enterprise Sales and Distribution Systems
Lab (1). Builds on the concepts and practices associated with sales planning and distribution covered in SCM 310. SCM 310A provides a hands-on case experience with the sales and distribution applications of an industrybased ERP system. Corequisite: SCM 310.
Upon successful completion of this course, the student will be able to:
Diagram the sales planning and implementation process commonly applied in an enterprise system environment Diagram the order management and distribution
process commonly applied in an enterprise system environment
Diagram the invoice to pay processes commonly applied in
an enterprise system
environment
Perform the actions necessary to create and modify customer records, quotations and orders in an enterprise system environment
Perform the actions necessary to create and modify distribution, delivery and invoice transactions in an enterprise system environment

## SCM 425A. Enterprise

 Purchasing and Materials Management Systems Lab(1). Builds on the concepts and practices associated with purchasing and materials management covered in SCM 425. SCM 425A provides a hands-on experience with the purchasing and materials management applications of an industry-base ERP system. Coor prerequisite: SCM 425.
Upon successful completion of this course, the student will be able to:
Diagram the new vendor creation process commonly applied in an enterprise system environment.
Diagram the purchase requisition to purchase order process commonly applied in an enterprise system environment. Diagram the order receipt to vendor payment processes commonly applied in an enterprise system environment. Perform the actions necessary to create and modify vendor information in an enterprise system environment. Perform the actions necessary to create and modify purchase requisitions and purchase orders in an enterprise system environment.
Perform the actions necessary to create and modify order receipts and vendor payment transactions in an enterprise system environment. SCM 435A. Enterprise Production Planning and

Execution Systems Lab (1).
Builds on the concepts and practices associated with production planning and execution covered in SCM 435. SCM 435A provides a hands on experience with the materials management and production applications of an industry-base ERP system. Coor prerequisite: SCM 435.
Upon successful completion of this course, the student will be able to:
Diagram the new materials transaction process commonly applied in an enterprise system environment.
Diagram the bill of material creation process commonly applied in an enterprise system environment.
Diagram the materials requirements planning processes commonly applied in an enterprise system environment.
Diagram the reorder point generation processes commonly applied in an enterprise system environment. Perform the actions necessary to create and modify a bill of materials in an enterprise system environment. Perform the actions necessary to create and modify and implement a material requirements plan in an enterprise system environment. Perform the actions necessary to create and revise reorder point system data based on new information.
SED 298. Special Topics (16).

SED 299. Seminar (1-5). May be repeated if subject is different.

## SED 382. Driver Task

Analysis (3). Introduction to traffic safety education, the highway transportation system, driver task analysis, classroom instruction techniques. Prerequisite: SED 180.

## SED 396. Individual Study

(1-6). May be repeated if subject is different.
SED 397. Honors (1-12),
Prerequisite: admission to department honors program.

## SED 398. Special Topics (1-

 6).SED 399. Seminar (1-5). May
be repeated if subject is different.
SED 481. Teaching Traffic Safety Education: Classroom and Simulation Instruction
(3). Methods, materials and techniques for teaching classroom and simulation. Experience in teaching beginning drivers. Prerequisite: SED 382 and current WSP/FBI fingerprint clearance.
SED 482. Teaching Traffic Safety Education: In Car (5). Methods, materials and techniques for teaching in dualcontrol vehicles. Experience teaching beginning drivers. Prerequisite: SED 382 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of incar instruction, including what it is, advantages and disadvantages, the development of risk management skills, the role of the teacher and students, and liability issues related to BTW instruction.
Identify, discuss, and apply teaching methods for the enhancement of learning within the in-car driving experience which includes students with a variety of special needs. Construct lesson plans for each BTW lesson using the model found in the Master TSE Curriculum Guide or other approved method. Teach a minimum of 8 in-car BTW lessons to novice students who are currently enrolled in a TSE program. Teach space management, reference points, risk management, and visual search techniques utilizing current vehicle technology and restraint systems as related to each BTW lesson taught.
Demonstrate effective assessment of novice drivers for each lesson taught.

SED 484. Safety Program Supervision (3). Development and management of a total school safety program. Prerequisite: SED 382.
SED 491. Workshop (1-6).
SED 496. Individual Study (1-6).
SED 497. Honors (1-12).
Prerequisite: admission to department honors program.
SED 498. Special Topics (16).

SED 499. Seminar (1-5). SHM 101. Evolution of Workplace Safety and Health
(4). This course is designed to introduce students to the origins and development of the occupational safety and health field in the American workplace through the study of historical events (human suffering resulting from occupational accidents, industrial disasters, workplace injuries and diseases) their social impacts, and the results of those experiences as expressed in economics, legal, behavioral, and ethical societal changes.
Upon successful completion of this course, the student will be able to:
Demonstrate their ability to identify the influence of various institutions such as trade associations, government agencies, insurance companies, and professional societies that led to a change in safety culture in the American workplace.
Demonstrate their ability to critically analyze historical events (human suffering resulting from occupational accidents, industrial disasters, workplace injuries and diseases), their social impacts and the results of those experiences as expressed in economic, legal, behavioral, and ethical societal changes. Demonstrate their ability to:
(1) research and identify common safety and health issues in American workplace, (2) recommend solution by identifying appropriate regulatory measures currently
in place, and (3) demonstrate their understanding of the impact of these issues/solutions within a societal and global context.
Demonstrate their understanding of ethical responsibilities of employers to provide a work environment free of known hazards.
SHM 102. Occupational
Health (5). Explore the fundamental concepts of occupational health, including identification of health hazards in the work place, prevention of work place injuries and illnesses, human factors, and environmental health as it relates to the
workplace. Course will be offered every year (Winter and Summer).
Upon successful completion of this course, the student will be able to:
Explain scientific and technological advances in occupational health and how they impact the lives of workers
Describe potential biological, chemical, ergonomic, physical, and psychosocial risk factors and hazards
Assess the importance of prevention and proactive behavior in reducing risk factors and hazards
Research occupational and environmental risk factors, hazards, and exposures for a selected work environment Investigate the use of human factors theories to enhance workplace health Prioritize recommendations based on research and quantitative reasoning SHM 201. Introduction to Safety and Health Management (Put on reserve 9/16/17) (1). Overview of safety and health management profession, credentials, societies, organizations, application of math and science. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Prerequisite: students must be freshmen or sophomore standing.

Upon successful completion of this course, the student will be able to:
Identify and describe the diverse aspects of the safety and health management profession including industries, career options, and daily activities.
Identify and describe professional credentials, certification processes, societies and organizations, and admission requirements. Incorporate core math, science, and engineering knowledge in the conduct of various activities in safety and health practice.
Identify and describe sources for research and knowledge. Identify and describe the courses to achieve their career goals.
SHM 298. Special Topics (16). May be repeated if subject is different.
SHM 299. Seminar (1-5).
May be repeated if subject is different.

## SHM 301. Fundamentals of

 Safety and HealthManagement (3). This course covers the fundamental aspects of safety and health, applicable standards, risk management, performance metrics, hazard recognition/controls, industrial hygiene, environmental management, fire safety, systems safety, ergonomics, hazardous materials, fleet safety, emergency management, and accident investigation. Two lecture and two lab hours. Course will be offered every year (Fall). Prerequisite: admission to the safety and health management major, safety and health management minor, or occupational safety technology minor, or by permission.
Upon successful completion of this course, the student will be able to:
Explain the influence of various institutions such as trade associations, government agencies, insurance companies, and professional societies that led to a change in safety
culture in the American workplace.
Explain the fundamental aspects of safety, risk management, industrial hygiene, environmental management, fire safety, process safety, ergonomics, hazardous materials, fleet safety, emergency management, and accident investigation.
Demonstrate an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice in the safety and health discipline. Complete the OSHA recordkeeping log. Calculate the common safety performance metrics and explain their importance. Demonstrate their basic understanding of professional and ethical responsibilities as safety and health professionals.
SHM 302. Workplace Safety and Substance Abuse Program (3). Provides guidance on industry best practices and regulations to develop an effective workplace substance abuse program as part of a comprehensive environmental, health, and safety program to eliminate or minimize workplace accidents and injuries. Course will be offered every year (Winter). Prerequisite: SHM 301.
Upon successful completion of this course, the student will be able to:
Identify and describe risks and hazardous conditions created by drug and alcohol use in the workplace. Identify and apply pertinent standards, regulations, and codes.
Design, implement, and evaluate a workplace substance abuse program.
Describe the various employer recordkeeping requirements and best practices for drug and alcohol testing.
Recognize observable
behaviors in the workplace that indicate that an employee is
impaired by alcohol and/or drugs.
SHM 321. Agriculture Safety
(3). A comprehensive course that covers the safety and health regulations and practices pertaining to agriculture and the food processing industry. Upon successful completion of this course, the student will be able to:
Describe the characteristics of the agriculture and food processing industry.
Describe fundamental aspects of agriculture and food processing safety. Identify and apply agriculture and food-processing industry related standards, regulations, and codes.
Anticipate, recognize, evaluate, and develop control strategies for hazardous conditions and work practices in the agriculture and food processing industry.
Evaluate worker task performance to identify the appropriate Personal Protective Equipment (PPE) required to control the hazards.
SHM 323. Construction
Safety and Health (3). A
comprehensive course that covers the safety and health regulations and practices pertaining to the construction industry. (2 lecture and 2 lab hours). Course will be offered every year (Fall, Winter, and Spring). Prerequisite: CMGT 265 or SHM 301. Upon successful completion of this course, the student will be able to:
Describe construction contract types, contractual elements, pricing schemes, and typical project delivery methods including advantages and disadvantages from a safety perspective.
Identify and apply construction-related standards, regulations, and codes. Anticipate, recognize, evaluate, and develop control strategies for hazardous conditions and work practices in the construction industry.

Develop a site specific safety plan for a construction project. Demonstrate an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice in the construction safety and health discipline.
SHM 325. Manufacturing Safety and Health (3). A comprehensive course that covers the safety and health regulations and practices pertaining to the manufacturing/general industry. Prerequisites: SHM 301 or instructor permission or admission to technology education major or industrial technology major (BAS or BS) or technology education broad area major.
Upon successful completion of this course, the student will be able to:
Demonstrate their ability to anticipate, recognize, evaluate, and develop control strategies for hazardous conditions and work practices in the general industry. (ABET-1; SHM-M) Demonstrate their ability to identify and apply applicable standards, regulations, and codes in the general industry. (ABET-G; SHM-O) Inspect typical safety equipment used in the general industry
SHM 327. Research and Laboratory Safety (3). A comprehensive course that covers the safety and health regulations and practices pertaining to the laboratory and research industry. Course will be offered on odd numbered years (Summer).
Upon successful completion of this course, the student will be able to:
Describe research and laboratory concerns associated with environmental compliance, health, and safety, including the OSHA
Laboratory Standard. Topics will include: chemical fume hoods and biological safety cabinets, research animals, sterilization, cryogens,
radiation, and emergency planning.
Identify and apply research and laboratory-related standards, regulations, and codes Anticipate, recognize, evaluate, and develop control strategies for hazardous conditions and work practices in the research and laboratory industry
Develop a lab specific
Chemical Hygiene Plan for an assigned laboratory
environment
Demonstrate an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice in the research and laboratory safety and health discipline
SHM 351. Incident Analysis
(3). Review of accident investigation methodologies that include accident response, evidence collection, analysis techniques, developing and communicating recommendations to prevent recurrence. It includes drug/alcohol testing, claims management, return to work/rehabilitation programs, and preparation for lawsuits and deposition. Two lecture hours and two lab hours. Course will be offered every year (Spring). Prerequisites: SHM 301 and SHM 323 or SHM 325. Co-requisite: SHM 352.

Upon successful completion of this course, the student will be able to:
Demonstrate their ability to conduct an incident
investigation and analysis.
Demonstrate their ability to collect evidence and defend their party in a work-related lawsuit.
Demonstrate their ability to apply their applied science knowledge and perform a comprehensive accident trending based on historical accident data.
Develop a return to work program.
SHM 352. Systems and
Design (3). It provides an overview of system safety
concepts, qualitative and quantitative system safety analysis techniques (failure mode and effect analysis, hazard and operability studies, fault tree analysis), and design for safety concepts.
Prerequisites: MATH 130 and
SHM 301. Co-requisite: SHM 351.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the fundamental aspects of systems safety. (SHM-K) Demonstrate their ability to perform system safety analysis Demonstrate their ability to develop a system safety plan that can be used to evaluate a system
Demonstrate their ability to perform a life cycle safety analysis
SHM 353. Risk and
Insurance (4). An introduction to the concept of risk management, including: risk definition, identification, assessment and management techniques. Includes the fundamentals of various insurance related to the safety and health profession, loss control techniques, and legal foundations in safety and health management. Prerequisite: SHM 301 or admission into safety and health management major or minor.
Upon successful completion of this course, the student will be able to:
Demonstrate their ability to apply business and risk management concepts as part of a comprehensive safety and health management program. (ABET-3; SHM-N). Identify the various risks as part of an organization and recommend mitigating actions for each risk. (ABET-a; SHMB).

Identify and define the various types of insurance associated with the safety and health profession.

Identify the various legal aspects of safety and health profession.

## SHM 371. Emergency

## Planning and Preparedness

(4). It introduces students to: workplace hazards associated with natural and man-made disasters; the countermeasures to minimize its effects; required coordination between various government agencies; business continuity planning, and the role of emergency/disaster planning and preparedness in a workplace safety program. Prerequisite: SHM 301. Upon successful completion of this course, the student will be able to:
Demonstrate their ability to anticipate, recognize, evaluate, and develop control strategies to the various hazards associated with natural and man-made disasters. (ABET-3; SHM-J).
Identify and describe the role of federal and state agencies in emergency response situations. Demonstrate their ability to develop a comprehensive emergency management plan.
SHM 375. Transportation and Fleet Safety (4). Program management relating to fleet safety including transportation systems loss control management, fleet management, and driver safety training. Prerequisite: SHM 301.

Upon successful completion of this course, the student will be able to:
Identify and describe the role of state and federal agencies in establishing and maintaining rules and regulations for transportation safety. Describe the impact of different transportation modes used daily by industry and the general public.
Determine causes and countermeasures for transportation related injuries and death.
Identify and describe the components of a complete transportation safety program.

Establish a transportation safety program to achieve targeted performance goals. Demonstrate correct driver performance including ability to manage risk and other skills related to the driving task.

## SHM 377. Hazardous

 Materials Management (4).The management of hazardous materials, including best practices and federal regulations associated with the transportation, storage, use, and disposal of hazardous materials in the workplace. Prerequisites: SHM 351 and either CHEM 101, CHEM 111/111LAB, or CHEM 181/181LAB.
Upon successful completion of this course, the student will be able to: Demonstrate their ability to anticipate, recognize, evaluate, and develop control strategies associated with hazardous materials. Utilize federal regulations related to hazardous materials to assess compliance. Utilize DOT regulations related to hazardous materials to assess compliance. SHM 379. Facility and Building Safety (4). Program management relating to facility and building safety including basic concepts of fire safety, fire prevention, fire protection, accessibility, confined spaces, indoor air quality and ventilation, and walking-working surfaces. Prerequisite: SHM 351. Upon successful completion of this course, the student will be able to:
Define basic fire prevention and protection terminology. Demonstrate their ability to anticipate, recognize, evaluate, and develop control strategies associated with fire hazards. Demonstrate their ability to identify the common fire extinguishment agents used and the different options available in terms of fire suppression, fire detection, and alarm systems.
Demonstrate how to use and inspect a portable fire extinguisher.

Evaluate a building in terms of life safety.
SHM 396. Individual Study
(1-6). May be repeated if subject is different.
SHM 397. Honors (1-12).
Prerequisite: admission to department honors program.
SHM 398. Special Topics (1-
6). May be repeated if subject is different.
SHM 399. Seminar (1-5).
May be repeated if subject is different.
SHM 423. Advanced
Construction Safety
Management (4). This course
will cover advanced
construction safety
management techniques such as contractor pre-qualification, leading and lagging indicators, design for construction safety, LEED and safety, safety in contract management, 3D technology in construction safety, safety and quality, and SCSH rating system.
Prerequisite: SHM 323 or permission of instructor. Upon successful completion of this course, the student will be able to:
Pre-qualify construction contractors based on historical safety performance.
Calculate all the lagging and
leading indicators associated with construction safety management.
Identify the impacts of LEED on worker safety and health. Identify the innovation in technology available to enhance construction safety management.
Identify the impacts of construction quality on worker safety and health.
Rate a construction project based on SCSH rating system.
SHM 450. Commercial Property Risk Management and Insurance (3).
Introduction to commercial property insurance and how risk management techniques can be used to address an organization's property loss exposures, and the risk transfer of these exposures through insurance. Course will be
offered every year (Spring).
Prerequisite: SHM 353 or by permission.
Upon successful completion of this course, the student will be able to:
Identify and describe key commercial property risk exposures and control, and name the type of insurance policies that address each of these loss exposures. Identify the essential elements/provisions of various commercial property insurance policies that govern how coverage applies. Identify and describe the processes involved in procuring commercial property insurance and adjusting claims. Articulate regulations and current issues facing the commercial property insurance industry.
SHM 451. Commercial Liability Risk Management and Insurance (3).
Introduction to commercial liability insurance and how risk management techniques can be used to address an organization's liability loss exposures, and the risk transfer of these exposures through insurance. Course will be offered every year (Spring). Prerequisite: SHM 353 or by permission.
Upon successful completion of this course, the student will be able to:
Identify and describe key commercial liability risk exposures and control, and name the type of insurance policies that address each of these loss exposures. Identify the essential elements of various commercial liability insurance policies that govern how coverage applies. Identify and describe the processes involved in procuring commercial liability insurance and adjusting claims. Articulate regulations and current issues facing the commercial liability insurance industry.
SHM 452. Risk Management for Public Entities (4). An
overview of public entity hazard risk management administration, exposure identification, risk control, risk financing options, and claim and litigation management. Course will be offered every year (Winter).
Upon successful completion of this course, the student will be able to:
Describe and give examples of distinctive property, liability, and personnel exposures associated with public entities. Identify and describe how public entities should perform each of the steps in the risk management decision process. Analyze various risk control options available and how to implement them to protect public entities against losses. Outline the procedures by which claims against public entities are typically processed. Develop risk management plans for public entities.
SHM 453. Construction Risk and Insurance Management
(4). An examination of the major risk (loss) exposures faced by contractors and techniques used to manage risk including risk retention, contractual risk transfer, risk control, and insurance. Course will be offered every year (Spring).
Upon successful completion of this course, the student will be able to:
Describe construction contract types, contractual elements, pricing schemes, and typical project delivery methods including advantages and disadvantages from a safety perspective. Identify and describe the primary risks of loss faced by contractors and name the type of insurance policies that address each of these loss exposures. Apply the risk management process in managing a contractor's risks of loss. Apply appropriate techniques used to manage risk. Identify and describe the essential elements of the most
common insurances used in the construction industry including commercial general liability, commercial auto, workers compensation, builders risk, contractor's equipment, and commercial property.
SHM 454. Risk Management Principles and Practices (4).
An overview of risk
management, categories of risk, the loss exposures an organization may face, and tools that safety/risk management professionals can use to determine the significance of a loss exposure to an organization. Course will be offered every year (Fall). The student will be able to describe the concept of enterprise-wide risk management and the various risks faced by an organization. The student will be able to identify and apply risk management standards and guidelines.
The student will be able to explain how ISO 31000 provides a framework and a process for an organization to manage its risks. The student will be able to apply the enterprise-wide risk management framework and process to an organization's hazard risk.
The student will be able to, given a description of a business operation, recommend techniques for identifying and mapping risk.
The student will be able to demonstrate an ability to quantify risk through the application of statistical analysis techniques.
SHM 455. Risk Assessment and Treatment (4). This course provides students with a broad understanding of the risk assessment and treatment techniques for the major categories of risk faced by all organizations, with an emphasis on hazard risk (insurable risk). Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to:

Demonstrate an ability to use loss control techniques for hazard risk.
Use failure mode and effects analysis (FMEA) to assess and mitigate risk.
Given information on a physical property, assess the risk and recommend treatment options for protecting lives and property.
Identify and describe control measures for the following risk categories: legal and regulatory, management liability, human resource, environmental, crime and cyber, and fleet risks.
SHM 456. Risk Financing for Safety and Health Management (4). This course provides students with a comprehensive overview of the techniques (blend of retention and transfer) used by safety, health, and risk management professionals to finance or pay for the negative consequences of risk events. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Describe risk financing, common risk financing goals, and its importance to organizations.
Explain how to analyze, evaluate, and estimate expected losses arising from hazard risks.
Explain the purpose and operation of insurance, and how insurance benefits individuals, organizations, and society.
Given a case, justify a selfinsurance plan that can meet an organization's risk financing needs.
Describe the purpose and operation of the following insurance plans: self-insurance, retrospective rating, reinsurance, and captive insurance.
Describe the types of contractual risk transfer for hazard risk.
SHM 471. Fundamentals of Industrial Hygiene (4). An introduction to the basics of
industrial hygiene that includes: the anticipation, evaluation, and control of workplace environmental stressors (chemical, physical, and biological) that can impact the health, comfort, or productivity of the worker. Prerequisite: SHM 351 and BIOL 201.
Upon successful completion of this course, the student will be able to:
Demonstrate their ability to anticipate, recognize, and effectively evaluate chemical, biological, and physical workplace stressors that pose adverse health effects Demonstrate their ability to select appropriate type of personal protective equipment required to control exposures to chemical, biological, and physical stressors in the workplace
Demonstrate their ability to identify and apply appropriate engineering and administrative controls to reduce employee exposures to chemical, biological, and physical stressors in the workplace Demonstrate their ability to evaluate a material safety data sheet (MSDS)
SHM 472. Ergonomics (3). It
provides the basics of ergonomics in the work environment: musculoskeletal disorders, assessment of ergonomic risk factors, workplace design, evaluation of lifting and material handling activities, and the role of ergonomics in a
comprehensive workplace
safety program. Two lecture hours and two lab hours. Course will be offered every year (Winter). Prerequisites: SHM 471.
Upon successful completion of this course, the student will be able to:
Describe the relationship between work attributes and ergonomic risk factors Describe how ergonomic risk factors affect underlying physiological and
biomechanical mechanisms of the human worker Undertake an ergonomic analysis of a workplace, tools, equipment, or specific task and formulate recommendations Calculate recommended weight limit for lifting/lowering tasks using the NIOSH lifting equation
Undertake an ergonomic analysis of a workplace, tools, equipment, or specific task and formulate recommendations
SHM 474. Safety and Health
Management Systems (4). It provides a systems-based approach to managing safety programs, with the help of major consensus standards such as ANSI/AIHA Z10, OHSAS 18001, and OSHA VPP. Prerequisite: SHM 353. Upon successful completion of this course, the student will be able to:
Identify the various requirements of system-based consensus standards.
Design and evaluate a comprehensive system-based safety and health program. Apply adult learning theories in the completion of safety and health training.
Apply risk-based approach and concepts to the prevention of hazardous acts and conditions. Develop and conduct a perception survey, and analyze and interpret data.

## SHM 475. Management

 System Auditing (Put on Reserve 9/16/16.) (4).Procedures to externally monitor: auditing, data collection, safety and health management systems, assessment strategies, consulting and contracts. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)
Prerequisites: SHM 474, either SHM 477 or IET 481, and either PSY 456 or MGT 386. Upon successful completion of this course, the student will be able to:
Identify and describe the role of the safety and health auditor in conducting an external
assessment of safety and health management performance. Identify and describe practices and procedures used to externally assess safety and health management performance including safety management systems, audits, data collection and analysis, consulting, and contracts. Design sampling methodologies, analyze and interpret data, and develop recommendations to audit safety and health management performance.
Communicate effectively through written reporting.
Identify and describe challenges relating to participation on interdisciplinary teams. SHM 477. Environmental Management (4). It provides an overview of federal environmental legislation's (CWA, CAA, RCRA, and CERCLA) and their practical application in the work environment. The course will also introduce the ISO's environmental management system 14000 series. Prerequisites: SHM 353 and SHM 377.
Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the fundamental aspects of federal environmental legislation and environmental management systems Prepare and conduct a comprehensive environmental audit in a workplace and communicate their recommendation effectively in a written report
SHM 480. Safety and Health
Laboratory (2). It provides hands-on experience with various safety measurement instruments used in the profession. It includes training strategies using safety equipment/situations encountered in the workplace Four lab hours per week. Course will be offered every year (Winter). Prerequisites:

PHYS 106 and SHM 471 and SHM 490.
Upon successful completion of this course, the student will be able to:
Demonstrate an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice in the safety and health discipline.
Demonstrate an ability to design and conduct experiments, and to analyze and interpret data pertinent to the safety and health discipline.
SHM 481. Evolving Issues in Safety and Health Management (2).
Presentations and case studies by practicing safety professionals on contemporary and future safety and health management topics. Prerequisite: SHM 490.
Upon successful completion of this course, the student will be able to:
Have developed the knowledge of contemporary safety and health issues within a global and societal context.
SHM 482. Evolving Issues in Risk Management (1). This course exposes students to the varied career options, evolving issues in risk management, and strategies to identify and handle ethical dilemmas faced by safety and risk management professionals using an ethical framework. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of contemporary risk management issues and the impacts of their solutions within a global and societal context.
Given three common realworld ethical dilemmas, in a case study form, identify stakeholders, describe the ethical dilemma, and identify alternate courses of actions and their impacts.
SHM 485. Safety and Health Management Capstone (3). Students will apply the
principles of safety and health management to solve real world safety issues through various real world projects. The course will help prepare the students for the transition from student life to employment as a safety and health professional. By permission. Prerequisites: SHM 490 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Have developed the knowledge of contemporary safety and health issues within a global and societal context.
SHM 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. A minimum of 67 clock-hours of field experience is required for one academic credit. May be repeated up to 6 credits. Grade will either be S or U .
Prerequisites: SHM 301, and SHM 351, and SHM 352, and SHM 353, and SHM 371 or by permission.
SHM 491. Workshop (1-6).
SHM 496. Individual Study (1-6).
SHM 497. Honors (1-12).
Prerequisite: admission to department honors program. SHM 498. Special Topics (16).

SHM 499. Seminar (1-5).
SHP 298. Special Topics (1-
6). May be repeated if subject is different.
SHP 299. Seminar (1-5). May be repeated if subject is different.

## SHP 301. Science Honors

Junior Seminar: Elements of Scientific Research (2). The process of science from a multi-disciplinary perspective, including the historical development of scientific methods and reasoning, effective experimental design, and the interpretation of measurements.

Upon successful completion of this course, the student will be able to:
Describe the historical development of the scientific process.
Recognize the essential elements of a scientific investigation.
Apply concepts of precision and uncertainty in developing and interpreting scientific experiments.
Develop techniques for effectively displaying and representing data.
SHP 396. Individual Study (1-6). May be repeated if subject is different.
SHP 397. Honors (1-12). Prerequisite: admission to department honors program.
SHP 398. Special Topics (1-
6). May be repeated if subject is different.
SHP 399. Seminar (1-5). May be repeated if subject is different.
SHP 401. Science Honors Capstone Seminar (2). Skills and techniques for communicating the results of scientific research. Students prepare the final draft of their Science Honors thesis as part of the coursework.
Upon successful completion of this course, the student will be able to:
Employ effective writing style in describing the methodology and results of a scientific investigation.
Employ effective oral communication skills in describing the methodology and results of a scientific investigation.
Effectively critique written and oral presentations of scientific work.
SHP 496. Individual Study (1-6). May be repeated if subject is different.
SHP 497. Science Honors Thesis (1). Completion of Science Honors thesis. Strategies for effective oral presentation of scientific work will also be covered. Students must present results of Science Honors project at SOURCE.

Grade will either be S or U . Prerequisites: SHP 401 and admission to the Science Honors Program.
SHP 498. Special Topics (1-
6). May be repeated if subject is different.
SHP 499. Seminar (1-5). May
be repeated if subject is different.
SOC 101. Social Problems
(5). An introduction to the study of contemporary issues such as poverty, military policies, families, crime, aging, racial, ethnic conflict, and the environment. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on Cultures and Experiences of U.S. (W).
Upon successful completion of this course, the student will be able to:
Explain the basic terms, concepts, and theoretical frameworks in Sociology; Recognize and evaluate the relationship between individual and social issues;
Analyze social problems by applying sociological theories; Describe the causes and consequences of the problems associated with social inequality and discrimination; Explain and apply diverse empirical methods to investigate and analyze public policy and politics in efforts to address social problems. Describe the role of public policy and politics in efforts to address social problems.
SOC 107. Principles of
Sociology (5). An introduction to the basic concepts and theories of sociology with an emphasis on the group aspects of human behavior. Course
will be offered every year (Fall, Winter, Spring, Summer). SB-Foundations of Human Adaptations and Behavior (W).
Upon successful completion of this course, the student will be able to:
Identify basic principles and institutions that underlie the cultures and traditions of
groups, organizations, societies, or nations. Describe theories about individuals, social processes, social networks, or the relationships between individuals and society. Explain and apply diverse empirical methods to investigate and analyze individuals, groups, or societies.
Analyze human behavior, perspectives, or cultures using theory and research Articulate ways that social diversity shapes attitudes and values affecting the respect and equality of others
SOC 109. Social
Construction of Race (5).
Exploration of the social construction of race from antiquity to modern day. How did the idea of race come about? How did it evolve? What have been the social consequences of the idea of race? Formerly ETS 101, students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on Cultures and Experiences of U.S. (W). Upon successful completion of this course, the student will be able to:
Articulate the requirements of informed citizenship based on analyses of the social construction of race. Explain how social, psychological, and/or culturally diverse experiences create value in a community in terms of race and citizenship. Analyze relationships between citizenship and politics and the social construction of race. Describe how the concept of race and its historical, social, economic, and cultural developments have affected communities, citizenship,
politics, and government.
SOC 291. Workshop (1-6).
SOC 296. Individual Study (1-6).
SOC 298. Special Topics (16). May be repeated if subject is different.

SOC 299. Seminar (1-5). SOC 300. Introduction to the Major (1). This course will introduce Sociology/Social Services majors to information and resources and skills that they need to be successful and develop a plan to graduate. Students will gain knowledge about program requirements and cultivate necessary skills. Course will be offered every year (Fall, Winter and Spring). Prerequisite: students must have declared a major in sociology or social services to enroll in this class. Upon successful completion of this course, the student will be able to:
Determine personal education goals relevant to the Sociology/Social Services major and develop an action plan to complete major requirements. Analyze professional resources and explore career goals and future educational options. Develop research skills and assess information resources (e.g. literature searching, use of ASA format) that will facilitate success in future coursework. Synthesize course information in order to complete a professional growth plan.
SOC 301. Introduction and History of Social Service Agencies (5). Introduction to the fields of social welfare, health services and corrections; organization and function of agencies.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of basic concepts and terminology in the field of social service Put welfare policies in the US in historical perspective Identify the relationship between social problems in the US and social services Identify important trends and issues in the practice of social service
Incorporate hands on social service experience in a social service setting

SOC 305. American Society
(5). Introduction to the social structure and processes of American society; emphasis on institutions such as government, family, schools, and religion, and processes such as conflict, change, stratification, mobility, and communication. Course will be offered every year (Fall, Winter, Spring, Summer). SBPerspectives on Cultures and Experiences of U.S. (W). Prerequisite: sophomore standing or above. Upon successful completion of this course, the student will be able to:
Articulate the requirements of informed citizenship based on sociological theories and perspectives and empirical research of social, cultural, economic and political processes, issues, and events. Explain how social and culturally diverse experiences create value in a community based on sociological research of the cultural and structural frameworks that constitute and influence the workings of social institutions.
Analyze relationships between local, national, regional, and global cultures and community, citizenship, politics, and government through sociological reseaerch on regional, national, and internationl institutions. Describe how culture, social class, gender race/ethnicity in social insitutions have affected communities, citizenship, politics, and government.
SOC 307. Individual and Society (5). An analysis of the relationship between social structure and the individual. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to:
Define basic terminology used in the field of social psychology.
Recognize and discuss sociological theories relevant
to the field of social psychology.
Recognize and discuss sociological research relevant to the field of social psychology.
Analyze various research methods, including the appropriateness of methods for specific research questions and hypotheses, questions of validity, the specific conclusions that can be drawn from research, and potential questions/methods for future research.
Discuss, interpret, and demonstrate social-structural influences on individual behaviors, values, and identities, as well as how each of these bear on social interactions and social location (i.e., access to resources, opportunities, and rewards).
SOC 310. Social Service
Methods and Casework (5).
Casework interviewing techniques and skills, traditional and contemporary methods, emphasis upon developing a personal casework style. Prerequisite: SOC 301.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the basic fundamentals of social work practice
Discuss and analyze in written form materials related to topics of social service
Demonstrate the knowledge of the basic structure of social service organizations and the role they play in the community
Develop a broad understanding of professional ethics as it is related to the practice of social casework
SOC 320. Death and Dying
(5). An analysis of social attitudes, practices, and institutions associated with death and dying in American society.
SOC 322. Sociology of Food
(5). Sociological study of food, including
contemporary, historical, and
cross-cultural explorations.
Draws on sociological theory and research to understand the significance of food for human societies. Course will not have an established scheduling pattern. Prerequisite: SOC 107. Upon successful completion of this course, the student will be able to:
Discuss social-structural influences on food production, distribution, consumption, and social norms.
Discuss the social significance of foods and the impact of their production, distribution, and consumption for social life.
Interpret social-structural influences on one's own perspectives about food and relationship to food. Examine social norms and behaviors surrounding food. Examine social inequalities (related to race, gender, social class, etc.) evidenced in sociological research on food.
SOC 325. Aging (5). Problems and advantages of growing old in society; post-parental families, retirement, the economics of pensions, importance of interaction in old age, residential facilities, geriatric medicine, and dying. Upon successful completion of this course, the student will be able to:
Describe and apply basic concepts and theories about the biological, psychological, and social factors that influence the lifestyle and life course of the elderly
Explain how class, gender, race, and culture affect aging and recognize the roles and needs of the elderly Recognize the myths and ignorance surrounding aging and older adults in society Discuss the impact of the aging population on society
SOC 326. Social Demography (5). This course surveys major principles and methods of social demography and will cover demographic analysis of population that focuses on both U.S. and global aspects of social change:
fertility, mortality and life expectancy, and migration. Course will be offered every year (Fall).
Upon successful completion of this course, the student will be able to:
Explain and interpret demographic data presented in mathematical forms (e.g., equations, graphs, diagrams and tables.)
Convert demographic data and information about fertility, mortality and life expectancy, and migration into statistical forms (e.g., equations, graphs, diagrams and tables.)
Make analytical judgements and draw appropriate conclusions about population change based on quantitative analysis of demographic data and vital statistics.
Make and evaluate
assumptions about national and global population change in estimation modeling and data analysis of social demographic data.
Analyze and critique humanistic claims about social change involving quantitative information of U.S. and global population census and vital statistics data.
Perform college-level arithmetical and mathematical calculations about U.S. and global population data.

## SOC 327. Health and Society

(5). An examination of social and cultural factors impacting the distribution of health and illness across groups and individuals in society including the relationship between disparities in health care and principles of social justice and equality. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Identify and articulate basic principles and institutions that underlie cultural, historical and social understandings of health and illness, and interactions with the healthcare system. Describe and identify sociological perspectives and
theories about health and illness.
Apply diverse empirical methods to investigate and analyze health related issues within and outside the U.S., their causes and strategies for solutions
Critically analyze social, economic, and political perspectives on health and illness
Analyze the relationship between individual experience and social factors related to disparities in health and illness using theory and research Articulate how race, class, gender, and sexuality interact with the inequality present in the US to affect both the health care system and the attainment of health
SOC 331. Sociology of Sport
(5). Sports and games as social phenomena.
Upon successful completion of this course, the student will be able to:
Identify the role of sport in American society as a social institution.
Identify the socio- historical development of sport in American society. Critically assess the functioning and structure of sport in the modem age.
SOC 338. Political Sociology
(5). Major theories of power in society. Analysis of the political/economic structure of society as it determines the differential access to social power by different social groups.
Upon successful completion of this course, the student will be able to:
Identify various theoretical perspectives on American politics.
Identify the sources of political influence and power in America.
Critically analyze the
functioning of American politics.
Identify the components of informed citizenship in relation to a sustainable democracy.

SOC 343. Child Abuse (5).
An analysis of the causes, consequences of and prospects for dealing with the phenomena of child abuse and neglect in American society. Upon successful completion of this course, the student will be able to:
Identify important historic developments in the' definition and treatment of child abuse in the United States Recognize symptoms of various kinds of child abuse Demonstrate knowledge of social factors facilitating or hindering the reporting of child abuse
Demonstrate knowledge of the legal and social service framework for reporting and intervention in cases of child abuse
SOC 344. Juvenile
Delinquency (5). A study of social factors causing delinquency in youth; major theories, analysis of treatment and control.
Upon successful completion of this course, the student will be able to:
Identify and discuss historical eras of juvenile delinquency and the Juvenile Justice System in the United States Identify and discuss sources of data and statistics measuring the nature and extent of juvenile delinquency and their related strengths and weaknesses.
Identify and discuss sociological theories of juvenile delinquency and be conversant with their theoretical scope and level of empirical support. Identify and discuss the social problems of juveniles' lives, social groups and social institutions and their relationships to delinquency. Apply sociological theories of juvenile delinquency to social policy.
Identify and discuss empirical knowledge about delinquency correction programs.
SOC 345. Deviance (5). A survey of approaches to the
field of deviance with emphasis on contemporary work and focus on the problematics of the field. SOC 346. Criminology (5). A study of the adult criminal, criminal behavior, and criminality in human societies.

## SOC 348. Women and Crime

(5). This course will critically assess the current theoretical and empirical literature on female criminality and social control.
Upon successful completion of this course, the student will be able to:
Identify theoretical basis for gender differences in criminal behavior
Compare and contrast empirical evidence identifying the differences between male and female criminal behavior Demonstrate understanding of the history of violence against women
Demonstrate the differences between the experience of men and women in the criminal justice system
SOC 349. Law and Society
(5). Law is studied through the major sociological perspectives by examining law and its relations with the economy, policy, family, religion, socioeconomic production, social class, gender, and race and ethnicity. Prerequisite: SOC 107.
Upon successful completion of this course, the student will be able to:
Identify and discuss the core sociological perspectives in relation to law as a social institution, structure, and process.
Identify and discuss law and its relationships to the social stratification dimensions of social class, gender, and race, and ethnicity.
Identify and discuss the regulatory role law has for other social institutions. Identify and discuss how institutions and social movements shape the formation of law.

Identify and discuss the complex relations between law and culture.
Identify and discuss how law is socially constructed through the enactment of social roles located in the social field of the courts and legal system.
SOC 350. Social Theory I (5).
An introduction to social
theory through study of early social thinkers, emphasizing the works of Durkheim, Marx, and Weber. Prerequisites: SOC 107 and 10 units of sociology 300-and-above level courses.
SOC 351. Sociology of Work
(5). An historical view of the impact of technology on society and social change. Importance of work as an institution. How work relates to the other social institutions, to culture, and to the development of personality.
SOC 352. Punishment and
Corrections (5). Origin, maintenance, structure, and function of institutions of punishment and correction with particular emphasis on American society; problems of change in punishment and corrections.
SOC 354. Minority
Experience (5). Explanations will be identified for institutional racism common to the history and character of American minorities. SOC 354 and ETS 354 are cross-listed courses; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Recognize the main points in minority-white relationships Recognize the historical legacy of racism
Compare white Americans, African Americans, Native Americans, Asian Americans and Latino Americans regarding socio-economic characteristics and power Identify the basic questions and issues in the area of race and ethnicity
Identify the specific policy implications of theoretical and practical research in the area

Have the opportunity to develop critical thinking skills
SOC 356. Sociology of Gender (5). A review and analysis of the development, maintenance, and consequences of masculine and feminine social roles.
SOC 357. Sociology of
Families (5). Theory and research about familial interaction and society. Upon successful completion of this course, the student will be able to:
Identify and recognize diverse family forms Identify current and historical trends in family formation from a sociological perspective integrating social, demographic, economic and cultural perspectives Identify contemporary social and political issues influencing contemporary families Demonstrated ability to incorporate critical thinking and writing skills in analysis of the family

## SOC 358. Sociology of

 Sexualities (5). Exploration of how sexualities are socially constructed and controlled. This course we use a sociological lens to examine how sexualities directly and indirectly shape our daily lives, adopting both a life-course and cross-cultural perspectives to understand the fluidity of sexuality.Upon successful completion of this course, the student will be able to:
Describe and apply basic concepts and theories about the biological, psychological and social factors that influence the social construction and control of sexualities.
Compare and contrast by lifecourse and cross cultural perspectives the ways sexualities are directly and indirectly shaped.
Identify, analyze, and discuss facts and myths about sexual identity and sexuality
Demonstrate an understanding of the impact of sexualities and sexual identities on society.

SOC 359. U.S. Feminist
Movements (5). This course
analyzes the structure and dynamics of U.S. social movements based on gender, as well as the participation of women in other social movements, and the changing status of women in American society. Prerequisite: SOC 107. Upon successful completion of this course, the student will be able to:
Demonstrate a conceptual understanding of feminism and feminist movements and their impact on social institutions, social structure, culture and identities.
Discuss feminist ideas and activism as they relate to the economic, political, and cultural dimensions of society. Compare and contrast different perspectives in feminist and anti-feminist debates.

## SOC 362. Social Movements

(5). Causes, organizational problems, consequences of revolutions, and political, religious and social movements.
SOC 363. Methods of Social
Research (5). Principles and applications of social research methods. Prerequisites: SOC
107 and 5 units of sociology
$300+$ level courses or permission from the instructor.

## SOC 364. Data Analysis in

Sociology (5). Prerequisite:
SOC 363.
SOC 365. Minority Groups
(5). Study of the social formation of minority groups
in American society, their historical development, current conditions, and issues. SOC 365 and WGSS 326 are equivalent courses; a student may not receive credit for both.
SOC 366. Sociology of American Indians (5). This course presents a sociological approach to Native American society. Specifically, it explores social institutions in Indian Country including political, economic, family, religious, and educational systems. Understanding the American Indian experience in
relation to broader society is emphasized.
Upon successful completion of this course, the student will be able to:
Identify the social institutions present in "Indian Country". Outline the differences between the social institutions in "Indian Country" and the dominant society.
Summarize the basis for sovereignty in "Indian Country." Demonstrate knowledge of political, economic, family, religious and educational systems in tribal society.
SOC 367. Sociology of
Religion (5). The social organization of religious experience in small and large societies and the relationship of religious beliefs to human life.
SOC 369. Mass Media and
Society (4). Relationship of the mass media to social institutions; including philosophy, responsibilities, regulations, and criticism. Variable topic, may be repeated for up to 8 credits under a different title. COM 369 and SOC 369 are crosslisted courses; students may not receive credit for both. May be repeated for credit. SOC 370. Social Change (5). Social processes, institutional development and revolutions. SOC 371. Globalization (5). Examines globalization and its impact on social institutions, social structures, cultures, and social relationships within and between different societies. Prerequisite: SOC 107.
Upon successful completion of this course, the student will be able to:
Demonstrate a conceptual understanding of globalization and its impact on social institutions, social structures, culture, and social relationships within and between different societies.
Discuss globalization in its different dimensions:
economic, political, cultural, and social.

Compare and contrast different perspectives in the
globalization debates.
SOC 375. Sociology of Conflict (5). Major theories of conflict in society. Applications of theories to contemporary United States. Investigation of major factors related to societal power and conflict.
SOC 376. Sociology of the Military and Veterans in U.S. Society (5). Sociology of the military as a societal institution, active duty military personnel, and veterans. The course surveys the structures and societal impacts of military institutions, the demographic and social patterns of military life, and the transition to civilian life.
Upon successful completion of this course, the student will be able to:
Identify basic outlines of the historical development of the U.S. military; demonstrate an understanding of the organizational structures of the military, and the economic, social and cultural impacts of U.S. military institutions in society.
Demonstrate knowledge of demographic and social structures of active duty military personnel; patterns of recruitment and participation, training and employment conditions, deployment; family and social structures. Demonstrate understanding of patterns and issues in transition of military personnel from active duty to civilian life; demonstrate knowledge about physical and mental health conditions, educational opportunities and labor force participation, housing, family life, community involvement (e.g. advocacy organizations). Demonstrate knowledge of resources for active duty military, military veterans, and service providers.
Demonstrate an understanding of sociological aspects of active military duty: training for service, working
conditions, culture and rules, 'social relationships in the context of active duty,' impact of active duty on relationships in the civilian world.
SOC 380. Social Ecology (5).
The structure and development of human communities as they interact with environmental conditions.
SOC 382. Sociology of the
Future (5). A sociological analysis of predictions of the future. Principal questions will revolve around the effects of technology on social structure and the individual.
Upon successful completion of this course, the student will be able to:
Be introduced to and become
familiar with current advances in the bio-medical and technological fields as well as the social and psychological consequences that these changes might bring. Be asked to familiarize themselves with the ethical issues.
Gain knowledge of the relationship between technological change and social change as well as an understanding that a person can consciously shape the future.
SOC 386. Seminar on Racism (5). An advanced level of study examining the nature and dynamics of social forces in American society that produce the phenomena of racism. The changing forms of racism that occur historically at the intersection of class and gender oppression.
SOC 396. Individual Study
(1-6). May be repeated if subject is different.
SOC 397. Honors (1-12).
Prerequisite: admission to department honors program. SOC 398. Special Topics (16).

SOC 399. Seminar (1-5). SOC 415. Urban Sociology
(5). Growth, structure, and functions of the city; their relationships to surrounding and rural areas, urban ecological patterns, planning, and the problems of urban
living. Prerequisites: SOC 107 and 10 units of sociology 300-and-above level courses.
SOC 425. Sociology of
Education (5). Impact of culture on schools. Examination of contemporary social trends and relationships among church, school, and government; contributions of sociology to the area of education in its broadest sense.
SOC 442. Social Welfare
Policy (5). Review of U.S. social welfare policy, emphasis on 20th century social policies influencing nature of welfare state, and delivery of social services.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of historical and political processes in social welfare policy
Develop critical thinking and writing skills, demonstrate knowledge of contemporary social welfare policy Demonstrate knowledge of a substantive social welfare program- i.e. Child welfare, Food assistance
SOC 445. Social Inequality
(5). The distribution of wealth, power, and prestige in society. Prerequisite: SOC 107.
SOC 446. Sociology of Immigration (5). This course will serve sociology and ethnic studies students by covering the topic of immigration, it's impact on the people immigrating as well as the citizens of the country they are immigrating to. ETS 446 and SOC 446 are cross-listed; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Identify the various factors (economic, social, political) affecting immigration to America in the modern age (post-1965).
Identify the unique factors that compelled varying ethnic/racial and religious groups to immigrate to America.

Identify how the sociological perspective addresses the issue of immigration in modern America.
SOC 447. White-collar and Organization Crime (5). This course explores crimes by and against social organizations. Crimes by the organization include illegal behavior by corporations, governments, and crime syndicates. Crimes against the organization include illegal acts by trusted professionals. Prerequisite: SOC 107.
Upon successful completion of this course, the student will be able to:
Identify and discuss repertoires of white-collar crime and demonstrate an understanding of their embeddedness in socioeconomic markets of exchange.
Identify and discuss the organization's embedded relationships with peers, their rivals, their suppliers, their customers or clients, their access to capital, securities markets, and production markets.
Demonstrate an understanding of the relationship between principals and agents and the social functions of trust in socioeconomic exchange. Identify and discuss the social structural contingencies related to organizational cohesion or disintegration in political conspiracies.
SOC 449. Contemporary Native American Cultures and Issues (4). Analysis of contemporary Native American cultures and issues, including tribal sovereignty, resource management, education, religion, economic, and health status, and cultural continuity, and adaptation. SOC 449 and ANTH 449 are cross-listed courses; students may not receive credit for both. Prerequisites: either ANTH 341, ANTH 347, SOC 366, AIS 103, or permission of instructor.

Upon successful completion of this course, the student will be able to:
Identify how imposed contemporary
reservation/reserve systems have impacted Native cultures in North America.
Identify major US political and legal policies that define Native American "reserved rights".
Demonstrate a recognition of how non-native cultural values have influenced the various types of knowledge of contemporary American Indians
Critically assess key issues influencing at least two of the following: Indian education, Native American health; contemporary resource management and economic development; religious freedom and contemporary practices; Pan-Indianism Research and critically assess the key issues influencing major contemporary issues facing a single Native American tribal group or confederated groups.
SOC 459. Organizations (5). Theory and research on the structure and development of organizations.
SOC 460. Community Structure and Organization (5). Community formation from inner-city to rural hamlet. Changes in community institutions and organizational life related to industrialization, politics, social stratification, and ethnicity. Students will conduct field research on specific community functions and social structures. Prerequisites: SOC 107 and 10 units of sociology 300 -andabove level courses.
SOC 489. Senior Seminar (1).
A senior capstone course. Portfolio review, career planning, and program evaluation activities. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: senior standing and admission to the
sociology major or social services major.
Upon successful completion of this course, the student will be able to:
Demonstrate clear communication strategies and techniques in oral and/or written form.
Apply higher-order critical thinking and/or problemsolving skills.
Reflect upon, integrate, and apply the knowledge and skills they gleaned from their undergraduate experience, including General Education. Synthesize and present a response, propose a solution/answer, or showcase their own creative work
SOC 490. Cooperative
Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U. Prerequisite: prior approval required.
SOC 491. Workshop (1-6).
SOC 492. Sociology Teaching
Experience (1-5). Experience in the classroom and/or laboratory teaching. By permission. May be repeated up to 10 credits. Prerequisites: senior standing and admission to the sociology major or permission from the instructor.

## SOC 494. Research

Practicum (1-5). Supervised experience in qualitative research. May be repeated up to 10 credits.
Upon successful completion of this course, the student will be able to:
Identify the contribution that sociology makes to liberal education and a critical awareness of contemporary issues in sociology Apply sociological skill and knowledge through direct involvement as a research assistant

Gain information about career opportunities, graduate study and the comprehensive examination in sociology Give the opportunity for faculty and students to explore intellectual issues of common concern through shared experience
Learn about and demonstrate the ethical application of sociological knowledge Identify the interrelatedness of sociological theory, research, and applied practice Provide faculty and peer support for student presentations at professional and student conferences
SOC 495. Sociological
Research (1-15). Individual research project. May be repeated up to 15 credits. Prerequisites: SOC 350, SOC 363, and SOC 364. Upon successful completion of this course, the student will be able to:
Describe and assess various teaching styles.
Identify and describe effective teaching practices.
Assess the use of instructional objectives in course planning and classroom research. Identify the basic assumptions that affect teaching in a United States classroom.
Assess the potential difficulties in various teaching styles and develop strategies to compensate for problems. Analyze the ethical dilemmas of instructional communication and identify implications for practice.
SOC 496. Individual Study
(1-6).
SOC 497. Honors Thesis (1-
12). By permission.

SOC 498. Special Topics (16).

SOC 499. Seminar (1-5).
SPAN 151. First-year
Spanish (5). Develop elementary skills in listening, speaking, reading, and writing. For students with the equivalent of fewer than two years high school Spanish. Courses must be taken in sequence.

Upon successful completion of this course, the student will be able to:
Describe everyday topics in the present, past and future
indicative, orally and in writing Use elementary vocabulary and grammar appropriately, orally and in writing
Recognize appropriate use of vocabulary and grammar in oral and written input Identify cultural practices of Spain and Latin America
SPAN 152. First-year
Spanish (5). Develop
elementary skills in listening, speaking, reading and writing. For students with the equivalent of fewer than two years high school Spanish. Courses must be taken in sequence.
Prerequisite: SPAN 151, or by placement exam.
Upon successful completion of this course, the student will be able to:
Describe everyday topics in the present, past and future indicative, orally and in writing Use elementary vocabulary and grammar appropriately, orally and in writing
Distinguish appropriate use of present indicative and subjunctive moods Recognize appropriate use of vocabulary and grammar in oral and written input Identify cultural practices of Spain and Latin America SPAN 153. First-year
Spanish (5). Develop elementary skills in listening, speaking, reading, and writing. For students with the equivalent of fewer than two years high school Spanish. Courses must be taken in sequence. Prerequisite: SPAN 152, or by placement exam. Upon successful completion of this course, the student will be able to:
Describe everyday topics in the present, past and future
indicative, orally and in writing Use elementary vocabulary and grammar appropriately, orally and in writing

Distinguish appropriate use of present indicative and subjunctive moods Recognize appropriate use of vocabulary and grammar in oral and written input Identify cultural practices of Spain and Latin America SPAN 160. Spanish Current Events (5). An overview of current events in contemporary Spain through readings and viewings of contemporary news media contextualized through study of Spain's recent history, its current political system, and contemporary cultural politics. Course will be offered every year (Summer). Upon successful completion of this course, the student will be able to:
Relate a basic outline of Spain's recent history including the authoritarian antecedents of the democratic system and Spain's political transition to a constitutional Monarchy.
Describe the structure of the Spanish political system and identify salient features of government institutions such as the Congress of Deputies, the Senate, and the Constitutional Court.
Describe salient features of contemporary Spanish cultural politics including regionalism, migration, politics of the family, women's and LGBTQ movements, politics of memory, and debates surrounding the European Union.
Apply knowledge of Spain's recent history, current political system, and contemporary cultural politics in order to contextualize readings in contemporary Spanish news media.
Compare and contrast Spanish news media, in the context of recent history and current events, to US new media.
SPAN 181. Intensive Review of First-year Spanish (Put on Reserve 9/16/16.) (5).
Intensive review of first-year Spanish for students with the equivalent of two years of high
school Spanish who wish to continue with second-year Spanish. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Prerequisite: either at least two years of high school Spanish, SPAN 151, or SPAN 152.
Upon successful completion of this course, the student will be able to:
Demonstrate novice-high/intermediate-low level competence as defined by the ACTFUL proficiency guidelines in listening, speaking, reading, and writing. Handle successfully limited interactive and social situations, can ask and answer questions, initiate and respond to simple statements and maintain face-to-face communications although highly restricted and with much linguistic inaccuracy. Express basic personal background and needs, such as introductions, ordering a meal, asking directions, and making purchases.
Comfortable manipulating past, present and future tenses, and most grammar presented in the course.
Understand and produce main ideas and some facts in linguistically noncomplex texts.
SPAN 251. Second-year
Spanish (5). Develop intermediate skills in listening, speaking, reading, and writing. Courses must be taken in sequence. Prerequisites: SPAN 153 , or by placement exam. Upon successful completion of this course, the student will be able to:
Examine and discuss a variety of common topics likely to be encountered in the target language culture Use intermediate vocabulary and grammar appropriately, orally and in writing Analyze and interpret simple oral and written texts in Spanish
Recognize appropriate use of vocabulary and grammar in oral and written input

Identify cultural practices of Spain and Latin America Demonstrate appropriate use of past, present and future indicative mood
SPAN 252. Second-year Spanish (5). Develop intermediate skills in listening, speaking, reading, and writing. Courses must be taken in sequence. Prerequisite:
SPAN 251, or by placement exam.
Upon successful completion of this course, the student will be able to:
Examine and discuss a variety of common topics likely to be encountered in the target language culture Use intermediate vocabulary and grammar appropriately, orally and in writing Analyze and interpret simple oral and written texts in Spanish
Recognize appropriate use of vocabulary and grammar in oral and written input Identify cultural practices of Spain and Latin America Distinguish appropriate use of present indicative and subjunctive moods
SPAN 253. Second-year
Spanish (5). Develop intermediate skills in listening, speaking, reading, and writing. Courses must be taken in sequence. Prerequisite: SPAN 252 , or by placement exam. Upon successful completion of this course, the student will be able to:
Examine and discuss a variety of common topics likely to be encountered in the target language culture Use intermediate vocabulary and grammar appropriately, orally and in writing Analyze and interpret simple oral and written texts in Spanish
Recognize appropriate use of vocabulary and grammar in oral and written input Identify cultural practices of Spain and Latin America Distinguish appropriate use of present indicative and subjunctive moods

SPAN 261. Spanish for Heritage Speakers I (5). An introduction to academic Spanish for heritage speakers. This course is the first in a three quarter sequence that is designed to prepare heritage speakers of Spanish for more advanced study. Areas of focus will include grammar terminology, spelling, accentuation, ready and writing. Advisor approval or Spanish placement test results. Prerequisites: SPAN 153, or by placement exam.
Upon successful completion of this course, the student will be able to:
Identify the major parts of speech using appropriate Spanish grammar terminology in various sentence structures. Read, summarize, answer questions about, and respond to written texts from a variety of sources.
Demonstrate knowledge of new vocabulary dealing with everyday topics.
Write short essays using standard academic Spanish. Demonstrate knowledge of the geography and principal cultural aspects of Mexico.

## SPAN 262. Spanish for

 Heritage Speakers II (5). An introduction to academic Spanish for Heritage Speakers. This course is the second in a three quarter sequence that is designed to prepare Heritage Speakers of Spanish for more advanced study. Areas of focus will include grammar terminology, spelling, accentuation, reading and writing. Advisor approval or Spanish Placement Test results needed. Prerequisites: SPAN 261, or by placement exam. Upon successful completion of this course, the student will be able to:Identify the major parts of speech using appropriate Spanish grammar terminology in various sentence structures. Read, summarize, answer questions about, and respond to written texts from a variety of sources.

Demonstrate knowledge of new vocabulary dealing with everyday topics.
Write short essays using standard academic Spanish. Demonstrate knowledge of the geography and principal cultural aspects of Central and South America.
SPAN 263. Spanish for Heritage Speakers III (5). An introduction to academic Spanish for heritage speakers. This course is the third in a three quarter sequence that is designed to prepare heritage speakers of Spanish for more advanced study. Areas of focus
will include grammar terminology, spelling, accentuation, reading and writing. Advisor approval or Spanish placement test results. Prerequisites: SPAN 262, or by placement exam
Upon successful completion of this course, the student will be able to:
Identify the major parts of speech using appropriate Spanish grammar terminology in various sentence structures. Read, summarize, answer questions about, and respond to written texts from a variety of sources.
Demonstrate knowledge of new vocabulary dealing with everyday topics.
Write short essays using standard academic Spanish. Demonstrate knowledge of the geography and principal cultural aspects of Spain. Distinguish a variety of registers in both written and spoken Spanish.
SPAN 298. Special Topics (16).

SPAN 299. Seminar (1-5).
May be repeated if subject is different.

## SPAN 301. Introduction to

Spanish and Latin American Literature (5). This
transitional course will prepare students for advanced literature courses by introducing the tools for analysis and critique of literary works in the various genres. Lectures, readings, and discussions will be conducted
in Spanish. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: SPAN 341 or SPAN 345. Declared Spanish majors and minors only. Upon successful completion of this course, the student will be able to:
Analyze literary movements, genres and authors
Apply principles of literary criticism and theory to the study of literary texts Develop personal interpretations of literary texts Synthesize research findings in a literary area
Develop original work of creative writing

## SPAN 310. Hispanic

 Civilizations and Cultures(5). This course focuses on the study of major historical and cultural events that have shaped Spanish-speaking societies. Lectures, readings, and discussions conducted in Spanish. Course will be offered every year (Fall, Winter, and Spring). Prerequisites: SPAN 341 or SPAN 345, or by permission.
Upon successful completion of this course, the student will be able to:
Analyze historical processes
and cultural artifacts from Spain
Analyze historical processes
and cultural artifacts from
Latin America
Develop a personal point of view on issues affecting Spain and Latin America
Develop analytical skills to interpret cultural and historical data
Summarize the history and culture of a Spanish-speaking country

## SPAN 341. Spanish

Composition and Grammar I
(5). Development of writing skills through the practice of grammar, vocabulary, and rhetorical devices. SPAN 341 and SPAN 345 are equivalent courses; students may not receive credit for both. Course will be offered every year (Fall). Prerequisite: SPAN 253,
or by placement exam. Declared Spanish majors and minors only.
Upon successful completion of this course, the student will be able to:
Compose multi-draft
compositions.
Critique self- and peergenerated writing samples. Analyze and use appropriately advanced grammar and vocabulary.
Recognize and respond to coded corrective feedback. Use different rhetorical devices.
Distinguish linguistic, literary, and/or cultural features of Spanish speaking countries being discussed.

## SPAN 342. Spanish

Composition and Grammar
II (5). Further development of writing skills through the practice of grammar, vocabulary, and rhetorical devices. SPAN 342 and SPAN 346 are equivalent courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: SPAN 341.

Upon successful completion of this course, the student will be able to:
Compose multi-draft compositions at a more complex level than those done in 341.
Critique self- and peergenerated writing samples. Analyze and use appropriately advanced grammar and vocabulary.
Recognize and respond to coded corrective feedback. Use different rhetorical devices.
Distinguish linguistic, literary, and/or cultural features of Spanish speaking countries being discussed.
SPAN 343. Spanish
Conversation (5).
Development of speaking and listening skills through the practice of grammar, vocabulary, and communicative strategies. Course will be offered every
year (Spring). Prerequisite: SPAN 253 or SPAN 263.
Upon successful completion of this course, the student will be able to:
Create and organize individual oral presentations Comprehend and formulate a response to impromptu topics Employ appropriate communicative strategies in peer conversations and in oral presentations to the class Recognize and produce prescriptive grammar and vocabulary in peer conversations and in oral presentations to the class Elaborate on a vocabulary list on specific topics
SPAN 345. Composition and
Grammar for Heritage Speakers I (5). Grammar, composition and conversation for academic purposes for heritage speakers of Spanish.
SPAN 341 and SPAN 345 are equivalent courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: SPAN 263, or by placement exam. Declared Spanish majors and minors only.
Upon successful completion of this course, the student will be able to:
Apply rules of standard Spanish orthography and accentuation.
Write compositions in Spanish in formal, academic style with appropriate rhetorical organization, grammar, vocabulary, and format. Identify parts of speech and metalinguistic terminology in Spanish.
Recognize and respond to coded corrective feedback. Express opinions and defend positions using contextappropriate register, both orally and in writing. Identify non-standard Spanish vocabulary and grammar usage and provide standard equivalents. Identify and/or explain the significant historical and
cultural events/artifacts of the Spanish speaking countries under study.
SPAN 346. Composition and Grammar for Heritage
Speakers II (5). Further
development of grammar, composition, and conversation for academic purposes for heritage speakers of Spanish. SPAN 342 and SPAN 346 are equivalent courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: SPAN 345. Upon successful completion of this course, the student will be able to:
Expand application of rules of standard Spanish orthography and accentuation.
Write compositions in Spanish in formal, academic style with appropriate rhetorical organization, grammar, vocabulary, and format. Essays will expand in length and complexity from 345. Identify parts of speech and metalinguistic terminology in Spanish.
Recognize and respond to coded corrective feedback. Express opinions and defend positions using contextappropriate register, both orally and in writing.
Identify non-standard Spanish vocabulary and grammar usage and to provide standard equivalents. Identify and/or explain the significant historical and cultural events/artifacts of the Spanish speaking countries under study.
SPAN 351. The Camino de
Santiago (5). This course offers an overview of the Camino de Santiago, a 9th century pilgrimage in northern Spain. Lectures, reading, and coursework are in English and Spanish. By instructor permission. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of lectures and selected readings
in Spanish culture and history, from pre-Roman times to the present
Demonstrate high-intermediate/low-advanced conversational proficiency in Spanish used for travel on the Camino de Santiago Demonstrate knowledge of logistics on the Camino de Santiago
SPAN 352. Spanish Boot Camp: A Language
Immersion Course on the Camino de Santiago (6). This course combines the thrill of walking the Camino de Santiago with a three-week Spanish language immersion course. Participants are required to use Spanish for communication, as well in a variety of oral and written course assignments.
Permission by instructor.
Course will be offered every
year (Summer). Prerequisite: SPAN 351.
Upon successful completion of this course, the student will be able to:
Demonstrate high-intermediate to low-advanced proficiency in Spanish conversation
Demonstrate high-intermediate to low-advanced proficiency in Spanish writing
Synthesize concepts from SPAN 351 (The Camino de Santiago) and new concepts introduced during the Camino pilgrimage
Express through photography the student's personal journey on the Camino
SPAN 380. Contemporary
Hispanic Literature and
Cultures (5). This course examines contemporary Hispanic poetry, short story, drama, and film. Lectures are conducted in Spanish; most readings will be in Spanish.
This course is an elective for Spanish majors, minors, and Latino and Latin American Studies minors. May be repeated up to 15 credits. Course will not have an established scheduling pattern. Prerequisites: SPAN 341 or

SPAN 345; and SPAN 301, or by permission of the instructor. Upon successful completion of this course, the student will be able to:
Read and understand literary texts in a variety of genres Interpret literary texts in light of critical theory
Develop personal interpretations of literary texts Synthesize research findings in a literary area
Examine the body of work of an author
SPAN 381. Hispanic and U.S. Latino Literatures and Cultures (5). This course examines Spanish American and U.S. Latino poetry, short story, drama, film, a novel, and essays. Lectures and discussions conducted in Spanish; most readings are in Spanish. Course will not have an established scheduling pattern. Prerequisites: SPAN
341 or SPAN 345, and SPAN 301, or by permission. Upon successful completion of this course, the student will be able to:
Analyze literary movements, genres, and authors
Apply analytical methods for writing essays on literature and/or authors
Synthesize research findings in a literary area
Examine Latino Literature and Cultures
SPAN 385. Spanish Phonetics
(5). Analysis of the Spanish sound system. Students will learn to describe, recognize, and produce the sounds of standard Latin American Spanish. Other dialects will also be examined. Declared Spanish majors and minors only. Course will not have an established scheduling pattern. Prerequisite: SPAN 253 or SPAN 263 or by placement exam.
Upon successful completion of this course, the student will be able to:
Describe the sounds of Spanish with appropriate phonological terminology.

Transcribe Spanish phonetically.
Produce standard Latin American Spanish pronunciation (Non-native/Non-Heritage speakers). Evaluate non-native Spanish pronunciation of L-2 learners (Native/Heritage speakers). Provide phonetic symbols that correspond to specific sound sequences and spelling conventions and vice versa. Identify types of words based on rules of accentuation, provide missing written accent marks, and identify stressed syllables.
Distinguish the major dialects of Spanish and describe how they differ from standard Latin American Spanish.
SPAN 396. Individual Study (1-6). May be repeated if subject is different.
SPAN 397. Honors (1-12).
Prerequisite: admission to department honors program.
SPAN 398. Special Topics (16).

SPAN 399. Seminar (1-5).
May be repeated if subject is
different.
SPAN 432. Advanced Spanish Composition and Grammar (5). Advanced grammar, composition, and stylistics through textual analysis and essay writing. Course will not have an established scheduling pattern. Prerequisites: SPAN 342 or SPAN 346.
Upon successful completion of this course, the student will be able to:
Compose advanced, multi-draft compositions.
Critique self- and peergenerated writing samples. Analyze and use more advanced grammar and vocabulary. Recognize and respond to coded corrective feedback. Apply specific writing strategies, techniques, and rhetorical devices. Distinguish linguistic, literary, and/or cultural features of Spanish speaking countries being discussed.

Articulate metalinguistic concepts and terminology. Conduct a contrastive analysis between English and Spanish.

## SPAN 442. Spanish

Translation and
Interpretation (5). This course illustrates the specific semantic and syntactic aspects of Spanish in translation by examining a variety of texts and materials. Lectures, readings, and discussions in both English and Spanish. Course will not have an established scheduling pattern. Prerequisites: SPAN 341 or SPAN 345.
Upon successful completion of this course, the student will be able to:
Analyze and contrast the theories of translation and interpretation
Apply specialized vocabulary in translation and interpretation of texts
Articulate semantic and syntactic issues in translating and interpreting English and Spanish
Perform interpretation in professional settings
SPAN 443. Advanced
Spanish Translation (5). This course acquaints the student with the various theories of translation, and the responsibilities involved in the act of translating. It also offers ample practice with English to Spanish translation, and Spanish to English translation in a variety of fields. Course will not have an established scheduling pattern.
Prerequisite: SPAN 442.
Upon successful completion of this course, the student will be able to:
Analyze advanced theory of translation and interpretation Apply appropriate specialized vocabulary in translation and interpretation of texts
Articulate semantic and syntactic issues in translating and interpreting English and Spanish
Create a business plan for a translation/interpretation
agency in both English and Spanish
Create a business plan for a retail company to be advertised in both English and Spanish
SPAN 445. Spanish Medieval
Literature (5). This course analyzes the most
representative works, literary
genres, and movements of the Spanish Middle Ages.
Lectures, readings, and discussions conducted in Spanish. Course will not have an established scheduling pattern. Prerequisite: SPAN 301.

Upon successful completion of this course, the student will be able to:
Examine medieval Spanish literary movements, genres and authors
Apply analytical methods for writing essays on Spanish medieval literature and/or authors
Synthesize research findings in
Spanish medieval literature
Examine the thematic continuity between Spanish Medieval Literature and modern literature
Analyze the themes of love and other dominant themes in Spanish Medieval literature in their historical, political and social contexts
SPAN 446. Hispanic Cinema
(5). This course focuses on the analysis of films that represent different aesthetics and genres of Spanish, Latin American, and U.S. Latino film making. The course is offered in English to students of any discipline, and is a literature elective for Spanish majors and minors. Film critiques will be written in Spanish for Spanish majors and minors. Prerequisite: SPAN 301.
Upon successful completion of this course, the student will be able to:
Explain basic filmmaking theory
Identify the themes, symbols and metaphors posed in Spanish, Latin American and US Latino films

Analyze plot, characters, sequence of film narratives of films viewed in the course Interpret films viewed in class, including technical features, screen writing, themes, and characterization
Synthesize research findings on how films from Spain and countries in Latin America, or from the US Latino culture, can communicate effectively across cultural, linguistic, and political systems
SPAN 447. Framing Latin
American Cinema (5). This
course analyses Latin
American films and cultures. Instruction is offered in English and the course open to all students. It is an approved elective for Spanish majors and minors, who will perform work in Spanish, and for LLAS minors. Course will not have an established scheduling pattern. Prerequisite: SPAN 301.

Upon successful completion of this course, the student will be able to:
Explain basic filmmaking theory
Identify the themes, symbols and metaphors posed in Latin American films
Analyze plot, characters, sequence of film narratives of films viewed in the course Interpret films viewed in class, including technical features, screen writing, themes, and characterization
Synthesize research findings on how films from Latin American countries can communicate effectively across
cultural, linguistic, and political systems
SPAN 448. Framing South American Cinema (Put on reserve 9/16/17) (5). Course taught online to analyze films that represent the convergent roads of different aesthetics and genres of South American film making. The course is designed to provide students with knowledge of the rich and complex South American civilization and cultures. The course is offered in English to
students of any discipline, and it is a literature elective for Spanish majors and minors, and Latino and Latin American minors. Course will not have an established scheduling pattern. (Put on reserve $9 / 16 / 17$. Will go inactive 8/24/2020.) Prerequisite: SPAN 301.
Synthesize research findings on how films from Latin American countries can communicate effectively across cultural, linguistic, and political systems
Explain basic filmmaking theory
Identify the themes, symbols and metaphors posed in South American filmmaking Analyze plot, characters, sequence of film narratives of films viewed in the course Interpret films viewed in class, including technical features, screen writing, themes, and characterization
Synthesize research findings on how films from South America can communicate effectively across cultural, linguistic, and political systems SPAN 449. Spanish Golden Age Literature (5). This course studies novels, theatre, and poetry written in 16 th- and 17th-century Spain, including works by Cervantes, Lope de Vega, Calderon, or Quevedo. Course will not have an established scheduling pattern. Prerequisite: SPAN 301.
Upon successful completion of this course, the student will be able to:
Outline key moments in 16thand 17 th-Spanish history
Interpret literary texts in light of historical data and literary theory
Develop personal
interpretations of literary texts
Synthesize research findings in Spanish Golden Age literature Analyze a person or event of historical or cultural import from the Spanish Golden Age
SPAN 454. Medical and Legal Spanish for Translators and Interpreters (5). This course will acquaint
students with the most common medical and legal terms in Spanish, and will teach them how to translate and interpret effectively from English to Spanish and vice versa. May be repeated up to 10 credits. Course will be offered every year (Spring). Prerequistes: SPAN 442 and SPAN 443.
Upon successful completion of this course, the student will be able to:
Recognize English vocabulary for common medical conditions and common issues in law.
Define and correlate medical and legal terminology in both English and Spanish.
Apply appropriate English and Spanish vocabulary for diagnosing physical conditions
and justify language application.
Apply appropriate English and Spanish vocabulary for use in legal cases and justify language application.
Evaluate the ethical issues pertaining to medical and legal interpretation.

## SPAN 456. The Spanish and

Latin American Short Story
(5). Study of the short-story genre represented in works by major modern and contemporary Spanish and Latin American writers. Lectures, readings, and discussions conducted in Spanish. Course will not have an established scheduling pattern. Prerequisite: SPAN 301.

Upon successful completion of this course, the student will be able to:
Differentiate between and
apply literary terms and concepts
Analyze the literary movements and aesthetics of Hispanic prose fiction Appraise critically important short stories authors from Spain and Latin America Apply analytical methods for writing essays on the short story

Synthesize research findings on a specific topic and or author

## SPAN 457. Latin American

Theater (Put on reserve
9/16/2014.) (4). Study of
dramatic and performance
theories and of theatrical pieces
from Latin American
playwrights. Lectures, readings, and discussions conducted in Spanish. Put on reserve 9/16/2014. Last taught in 2009. Will go inactive
8/24/17. Prerequisite: SPAN 301.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of literary movements, genres, and authors in Latin American theater.
Develop analytical methods for writing essays on literature and/or authors in Latin American theater.
Conduct research on a specific
topic in Latin American theater.
SPAN 459. Latin American
Poetry (Put on reserve
$9 / 16 / 17$ ) (5). Study of literary conventions of poetry and the major contemporary Latin American poets. Lectures, readings, and discussions conducted in Spanish. Course
will not have an established scheduling pattern. (Put on reserve 9/16/17. Will go inactive $8 / 24 / 2020$.)
Prerequisite: SPAN 301.
Upon successful completion of this course, the student will be able to:
Differentiate between and apply literary terms and concepts
Analyze the literary movements and aesthetics of Latin American Poetry
Appraise critically important poetry and poets from Latin America
Apply analytical methods for writing essays on poetry Synthesize research findings on a specific topic and or poet SPAN 466. Spanish Poetry (5). Study of poetic theories and the main developments in
the poetry of Spain. Course will not have an established scheduling pattern.
Prerequisite: SPAN 301 or by permission of instructor.
Upon successful completion of this course, the student will be able to:
Differentiate between and apply literary terms and concepts
Analyze the literary movements and aesthetics of Spanish Poetry
Appraise critically important poetry and poets from Spain Apply analytical methods for writing essays on poetry Synthesize research findings on a specific topic and or poet
SPAN 467. Spanish and Latin American Literature and Film (5). A study of contemporary Spain and Latin America through literature and film. This course is conducted entirely in Spanish. Course will be offered every year (Spring). Prerequisite: SPAN 301.
Upon successful completion of this course, the student will be able to:
Demonstrate ability to comprehend and interpret works in various literary genre in the Spanish language Demonstrate ability to comprehend and interpret films in the Spanish language Demonstrate ability to synthesize concepts from various works in literature and film in the Spanish language
SPAN 491. Workshop (1-6). SPAN 492. Practicum in Spanish Translation and Interpretation (5). This is a practicum course in translation and interpretation for different settings -- including hospitals, law and police offices, and school districts -- along with regular reflective work on these experiences. May be repeated up to 10 credits. Course will be offered every year (Spring). Prerequisites: SPAN 442 and SPAN 443. Corequisite: SPAN 454.
Upon successful completion of this course, the student will be able to:

Report and analyze translation/and or interpretation experience during practicum. Generate an experience-based diary in both English and Spanish.
Create a vocabulary handbook organized by theme. Write a paper in both English and Spanish on the experience of the practicum.
SPAN 496. Individual Study (1-6).
SPAN 497. Honors (1-12).
Prerequisite: admission to department honors program. SPAN 498. Special Topics (16).

SPAN 498. Special Topics (1-
6 ). May be repeated if subject is different.
SPAN 499. Seminar (1-5).
May be repeated if subject is different.
SPM 101. Contemporary Sport Management (3). This course provides students with an overview of sport management, the relevance of legal, sociocultural, historical, political, and psychological concepts to the management of sport, and ways in which the globalization of sport continues to affect sport management professions. Course will be offered every year (Fall, Winter and Spring). Upon successful completion of this course, the student will be able to:
Explain the differences between the various functional areas of sport management. Describe the organizational and managerial foundations of sport management. Identify and explain the historical, sociological, cultural, and psychological foundations of sport management. Identify and evaluate current trends and issues in sport management.
Explain the relevance of ethical and legal concepts to the management of sport. Demonstrate an understanding of theories of management, leadership, and organizational behavior and how these
theories are applied in sport enterprises.
SPM 298. Special Topics (1-
6). May be repeated if subject is different.
SPM 299. Seminar (1-5). May
be repeated if subject is
different.
SPM 315. Legal Liability and Risk Management in Sport
(3). This course will examine risk management and legal issues that affect sport and recreation organizations.
Course will be offered every year (Winter). Prerequisite: SPM 101.
Upon successful completion of this course, the student will be able to:
Discuss sports torts in relation
to waivers, statutes of limitations, intentional torts, and products liability.
Apply various aspects of law to the concept of risk management within a sport or recreation setting. Describe and apply Title IX legislation as it relates to decision making in sport organizations. Explain the effects the Rehabilitation Act of 1973 and
the ADA has had on sport.
Demonstrate the ability to utilize the library and electronic resources to research sport law cases and legal principles.
Demonstrate the ability to develop a risk-management plan for a sport or recreation organization.
SPM 355. Public Relations and Promotions in Sport (3).
This course presents an overview of the various techniques and strategies used in meeting the wants and needs of consumers in the sport industry. Course will be offered every year (Fall). Prerequisite: SPM 101. Upon successful completion of this course, the student will be able to:
Demonstrate usage of terminology and theory related to public relations and promotions in the sport industry.

Explain sport promotion theory and how it can be used in the sport industry to meet the wants and needs of the sport consumer.
Recognize and design sport promotion research tools. Develop effective sport promotion plans based on datadriven decision making and time-tested public relations and promotions principles.
Analyze case studies in sport to recognize sound public relations decisions, and to articulate sport promotion solutions for various constituents.
Synthesize course material into a public relations and promotion plan for a sport organization.
SPM 365. Sports Facilities
and Events Management (3).
This course will allow students the opportunity to learn multiple aspects associated with the operation of sports facilities, and the management of events held at these facilities. Course will be offered every year (Winter). Prerequisite: SPM 101. Upon successful completion of this course, the student will be able to:
Describe and explain the organizational designs and operational structures within different types of businesses in the sport industry.
Describe and explain the planning and development processes of sport facility design.
Demonstrate the knowledge
necessary to successfully
develop, plan, and implement a sporting event.
Determine policies and practices for maintenance, use, and scheduling within sport facilities.
Demonstrate an understanding of the issues associated with the management of personnel in a sport venue.
Demonstrate an understanding of the concept of risk management, and the significance of legal issues in
the area of sport facility management.
SPM 396. Individual Study
(1-6). May be repeated if subject is different.
SPM 397. Honors (1-12). Prerequisite: admission to department honors program.
SPM 398. Special Topics (1-
6). May be repeated if subject is different.
SPM 399. Seminar (1-5). May
be repeated if subject is
different.

## SPM 465. Global

Perspectives in Sport (3).
This course will examine sport as a global phenomenon. Emphasis will be given to international sport competition, the globalization of sport, market dynamics, and social impact. Course will be offered every year (Fall). Prerequisite: SPM 101.
Upon successful completion of this course, the student will be able to:
Explain the history and cultural significance of international sport.
Explain how global politics impact international sport. Describe sporting cultures in societies outside the United States.
Outline the various models of sport organization and governance internationally. Analyze the role of the media in international sport.
Demonstrate an understanding of the role of sport in economic development.
SPM 490. Sport Management Internship (1-12). This course will provide students with an opportunity to work in a professional setting in a sport management field of their choice. Grade will be S or U . Course will be offered every year (Fall, Winter, Spring, and Summer). Prerequisite: sport management major with senior status, and permission of program director.
SPM 492. Practicum in Sport Management (3). Supervised practicum experience for sport management majors. Course will be offered every year
(Fall, Winter, and Spring).
Prerequisite: sport
Management major with senior status, and permission of program director.
Upon successful completion of this course, the student will be able to:
Demonstrate a growing awareness of professional responsibilities associated with various areas of sport management.
Observe and/or apply theory and principles to work situations.
Demonstrate professional behavior appropriate to the situation.
Demonstrate interpersonal and professional communication skills.
Demonstrate initiative, creativity, and ability to assume a degree of professional responsibility.
Reflect on various ethical decision making skills in the Sport Marketing and
Management field.
SPM 496. Individual Study
(1-6). May be repeated if subject is different.
SPM 497. Honors (1-12).
Prerequisite: admission to department honors program.
SPM 498. Special Topics (1-
6). May be repeated if subject is different.
SPM 499. Seminar (1-5). May
be repeated if subject is different.
STEP 101. Scientific
Perspectives and
Experimentation I (2). First
course in three-quarter
freshman science series.
Students will take an interdisciplinary approach toward scientific research centered on a single theme. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative
Reasoning. Course will be offered every year (Fall). NSApplications Natural Science. Prerequisite: enrollment in the STEP program or by permission.

Upon successful completion of this course, the student will be able to:
Use scientific concepts and processes to investigate a scientific problem important to society.
Collect, analyze, and interpret
quantitative and qualitative data to address scientific questions.
Critically read and summarize scientific literature.
Apply scientific concepts and processes to write a hypothesis driven scientific proposal. Find and use scientific literature to justify a hypothesis driven scientific proposal. Communicate in writing and orally to a scientific audience.

## STEP 102. Scientific

Perspectives and
Experimentation II (2).
Second course in three-quarter freshman science series. Students gain practical introduction to the scientific process through designing and conducting experimental, computer, laboratory and/or field investigations. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative Reasoning. By department permission. Course will be offered every year (Winter). NS-Applications Natural Science. Prerequisites: STEP 101.

Upon successful completion of this course, the student will be able to:
Use scientific concepts and processes to investigate a scientific problem important to them.
Collect, analyze, and interpret
quantitative and qualitative
data to address scientific questions.
Contribute to a scientific team to investigate a problem.
Communicate in writing and orally to a scientific audience.

## STEP 103. Scientific

Perspectives and
Experimentation III (1).
Third course in three-quarter freshman science series.
Topical survey of active
research efforts by faculty and students in science, technology and mathematics fields at CWU. Students must take STEP 101, 102, and 103 to receive credit for First Year Experience: Quantitative Reasoning. By department permission. Course will be offered every year (Spring). NS-Applications Natural Science (W). Prerequisite: STEP 102.
Upon successful completion of this course, the student will be able to:
Summarize the objectives and results of research in different fields of science, technology, engineering and mathematics. Evaluate different scientific career options relative to personal interest, knowledge, and skills.
Apply scientific concepts and processes to write a scientific proposal.
Find and use scientific literature to justify a scientific proposal.
Communicate in writing and
orally to a scientific audience.
STEP 301. Bridge Seminar I: Survey of Research
Opportunities (1). First course in two-quarter sequence for incoming transfer students. Students are introduced to undergraduate research opportunities at CWU and learn to write an effective research proposal. By permission. Prerequisite: student must be enrolled in STEP Program.
Upon successful completion of this course, the student will be able to:
Develop familiarity with
undergraduate research
opportunities in chosen field at CWU
Synthesize and communicate
scientific knowledge in a structured format
Effectively utilize library and online resources to conduct a literature review and prepare a bibliography
STEP 302. Bridge Seminar II
(2). Second course in a twoquarter sequence for incoming
transfer students. Students develop research and critical thinking skills through careful reading of scientific publications and hands-on experiments. By permission. Prerequisites: STEP 301, and admission to the STEP program, or by permission of instructor.
Upon successful completion of this course, the student will be able to:
Formulate a testable hypothesis based on a theoretical model.
Apply concepts of precision and uncertainty in the development and interpretation of scientific experiments. Recognize and describe the essential elements of scientific investigations, as well as their historical development.

## STP 201. Inquiry

Approaches to Teaching (2).
An introduction to theory and practice for effective math and science teaching in grades K12. This field-based career exploration course enables candidates to observe and identify essential components of content, equity, and professional practice. Course will be offered every year (Fall and Winter). Formerly STP 301, students may not receive credit for both. Prerequisite: current WSP/FBI fingerprint clearance. Upon successful completion of this course, the student will be able to: Use exemplary sources of inquiry-based instructional models to adapt and teach engaging STEM lessons to elementary students. Write performance objectives and assessments aligned with state and national standards. Design questions to determine students' acquisition of knowledge.
Research, observe, and critique strategies and assets for achieving instructional equity.
Based on effective research on daily procedures and behavioral expectations or guidelines, describe professional
teaching/management practices
(safe classroom, mutual respect, professional conduct and appearance, effective use of technology, etc).
Based on professional research, identify and describe qualities of effective teachers and personal management style, (e.g., authoritarian, interacting, democratic, etc.)
Describe the range of learner characteristics that are significant for instructional decisions (e.g. edTPA Task 1 Part A).
Reflect on professional research on policies for K-12 laws and court decisions regarding state and federal funding, agencies, constitution, and governmental structures.

## STP 202. Inquiry Based

Lesson Design (2). This fieldbased course builds on knowledge and skills developed in Inquiry Approaches to Teaching, emphasizing middle school learners. Candidates adapt and teach lessons that implement essential components of content, equity, and professional practice. Course will be offered every year (Winter and Spring). Formerly
STP 302, students may not receive credit for both.
Prerequisite: a grade of C or higher in STP 201 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Use knowledge of STEM fields and inquiry-based instructional models to adapt and teach engaging STEM lessons to middle level students. Write performance objectives aligned with national standards and design an assessments strategy that provides instructional feedback to the learners.
Design questions to guide student learning and acquisition of knowledge. Observe and reflect on teaching practices for identifying students' learning needs (academic, social,
behavioral, linguistic, etc.) and planning specific supports and strategies to respond to those needs.
Analyze plans for
implementing a safe and effective learning environment
for all students in a diverse and digital classroom.
Identify and reflect on the impact of effective classroom management strategies and a positive classroom environment on instructional methods.
Reflect on professional research on K-12 laws and court decisions regarding professionalism and ethics.
STP 298. Special Topics (1-
6). May be repeated if subject is different.
STP 299. Seminar (1-5). May be repeated if subject is different.
STP 300. Inquiry Approaches to Teaching and Lesson Design (4). In this field-based introductory course candidates observe and identify essential components effective math and science teaching in grades K-12. Then candidates design and teach lessons that implement essential components of content, equity, and professional practice. Course will be offered every year(Fall). Formerly STP 302A, students may not receive credit for both. Prerequisites: sophomore standing and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Use exemplary sources of inquiry-based instructional models to adapt and teach engaging STEM lessons to elementary students. Write performance objectives and assessments aligned with state and national standards. Design questions to determine students' acquisition of knowledge.
Research, analyze, and critique strategies and assets for achieving instructional equity.

Based on effective research on
daily procedures and
behavioral expectations or guidelines, describe professional
teaching/management practices (safe classroom, mutual respect, professional conduct and appearance, effective use of technology, etc).
Based on professional research, identify and describe qualities of effective teachers and personal management style, (e.g., authoritarian, interacting, democratic, etc.)
Describe the range of learner characteristics that are significant for instructional decisions (e.g. edTPA Task 1 Part A).
Evaluate and apply professional research on policies for K-12 laws and court decisions regarding state and federal funding, agencies, constitution, and governmental structures.
Use exemplary sources of inquiry-based instructional models to adapt and teach engaging STEM lessons to elementary students. Write performance objectives and assessments aligned with state and national standards.
STP 303. Knowing and
Learning (4). Examination of learning theories and research for effective STEM teaching and assessment, including implications for content literacy, language diversity, cultural responsiveness, technology, and professionalism. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: full admittance to the CWU STEM Teaching Program and Teacher Certification Program. Upon successful completion of this course, the student will be able to:
Construct developmentally appropriate models of knowing and learning to guide classroom practice.
Plan, conduct, and evaluate a clinical interview to make
sense of student reasoning about a topic in mathematics or science.
Analyze various standards for knowing science and mathematics and articulate the implications of these standards for assessment, especially standardized assessment. Describe what it means to know and learn relative to cognitive structures and provide research-based evidence on how it changes and develops. Describe and analyze various paradigms, techniques, and technologies for evaluating mathematics and science understanding.
Describe and analyze the ways teachers promote, influence, and reinforce culture in the classroom.
Describe and analyze evidence-based opinions on current issues and tensions in education such as second language acquisition and students with exceptionalities, especially as they relate to mathematics and science instruction.
Examine and analyze the implications of deficit models of learning on issues of equitable instruction and learning environments using the framework of IDEA (Individuals with Disabilities Education Act) as a guide. Evaluate and apply professional research on K-12 educational policy and law for the Every Student Succeeds Act (ESSA).
Explain and analyze how research on individual and group learning theories can be used to analyze classroom cultural scenarios requiring management/intervention strategies and their influence on individual and group motivation.

## STP 304. Classroom

Interactions 1 (4). Candidates plan, instruct, and assess STEM lessons based on research-supported practices. This field-based course applies principles of student centered
equitable teaching to classroom context and practice. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: STP 303 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Develop knowledge, skills and cultural competence using a variety of instructional strategies, focusing on what each method requires of teachers.
Plan and teach, with a small group of peers, multi-day culturally responsive accessible high school mathematics or science lessons on an assigned topic.
Solve problems from multiple perspectives in mathematics or science topics, justify their solutions, relate results to learning science and demonstrate awareness of alternative conceptions and their possible origin. Analyze culturally responsive classroom instruction and data on performance with regard to equitable and diverse instructional approaches that engage all students in learning process.
Implement and analyze a variety of instructional strategies to provide access to all students including English Language Learners and students with exceptionalities. Implement relevant technologies in teaching and analyze how technology can affect classroom interactions. Evaluate and apply professional research on K-12 policies, laws, and court decisions regarding students' and teachers' constitutional rights and responsibilities. Develop, implement, and reflect on culturally responsive classroom management strategies used to promote collaboration, positive social interaction, and effective conflict resolution.

Document and classify observed interventions for inappropriate behavior and compare relevance to use of instructional time and transitions.
Analyze theoretical researchbased literature in mathematics or science education and cite these results in analyses of personal teaching and reports to peers.

## STP 305. Classroom

Interactions 2 (4). Candidates plan, instruct, and assess fieldbased culturally responsive
STEM lessons that bridge
differences in language, heritage, race, socioeconomic status, and academic performance. Candidates intentionally apply culturally responsive instruction and classroom management pervasive throughout teaching. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: STP 304 and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Create, teach and evaluate multi-day, research-based math and science tasks to build and assess 6-12 students' content knowledge based on evidence. Summarize and evaluate methods for working collaboratively with families and school personnel to positively impact the educational, social, and behavioral development of all students in a diverse society. Design and implement instructional strategies for all students including English Language Learners, and students with exceptionalities. Evaluate and apply professional research on K-12 policies, laws and court decisions regarding equity, discrimination, disabilities, equal access, bi-lingual, multiculturalism, diversity, and torts.
Identify and evaluate multiple problem solving strategies and
analyze student thinking as
they engage in relevant mathematics and science lessons.
Implement relevant technologies in teaching to assess and analyze learning improvement over time and optimize classroom interactions.
Design and implement a comprehensive culturally responsive classroom management plan that applies effective management and instructional strategies that promote engaged and collaborative learning, cooperation, positive social interaction, conflict resolution, and individual and group motivation.
STP 306. Project-Based
Instruction (3). Candidates
plan, instruct, and assess fieldbased STEM lessons using a project-based approach that engages learners in exploring authentic meaningful questions of concern to K12 students. Candidates apply principles of student-centered equitable teaching to inquiry-based projects. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: STP 305 and current WSP/FBI
fingerprint clearance. Upon successful completion of this course, the student will be able to:
Use PBI design principles to develop, instruct and assess an interdisciplinary, three-to fourweek project-based unit for middle or secondary math and/or science courses Critique the merits of PBI versus other instructional approaches
Develop alternative assessments appropriate for project-based instruction Apply research-based literacy strategies such as Reader's
Workshop to help 6-12 students select and comprehend written text to support their project Plan and teach a PBI instructional unit that promotes
equitable and diverse participation
Critique STEM lessons in terms of applicability to students with exceptionalities and English Language Learners
Select appropropriate technology resources for student use based on the relationship of salient features of the technology to learning objectives
Integrate and assess use of relevant technologies into project-based curricular units. Apply knowledge of the community, school, and classroom, including learner characteristics and social, cultural, political, environmental, tribal, and economic contexts to instructional and culturally responsive classroom management practices.
STP 308. Perspectives on Science, Mathematics and STEM Education (3). An exploration of the history and philosophies of science and mathematics in the context of public education with an emphasis on how these ideas are related and can be applied to the STEM classroom. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: STP 303.
Upon successful completion of this course, the student will be able to:
Research and describe the historical development aspects of science and mathematics relevant to future teachers. Apply several analytical frameworks for analyzing the history and philosophy of science and mathematics. Develop and implement skills in searching for, retrieving, and evaluating the provenance and reliability of source materials, on- and offline, including specific resources available to teachers.
Evaluate and illustrate significant themes through eras of American education and the current context, e.g. universal
literacy, essential subjects or common curriculum, local control, secular education, compulsory attendance, public funding and legal accountability. Critique the effects that culture and interpersonal relations have on the development and evolution of science and mathematics.
Integrate approaches and material learned in the course with independent research and science or math content to design middle and high school science and math lessons. Describe and synthesize the relationships between important themes of educational philosophy and the history of science and mathematics.
STP 309. Research Methods
(3). Candidates experience and apply educational, scientific, and mathematical research methods by designing, carrying-out, and communicating investigations applicable in teaching middle or secondary STEM courses. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: STP 303.
Upon successful completion of this course, the student will be able to:
Develop research questions applicable to teaching and learning in STEM classroom. Evaluate various educational, scientific, and mathematical research methods and appropriately apply these to their own research. Apply reading literacy strategies to analyze primary literature.
Use case studies and research data to explore the interplay of learning exceptionalities, language, race, poverty, ethics, laws, and science. Examine underlying assumptions and bias about teaching and learning, including the significance of non-STEM subject areas in relation to STEM learning and the significance of integrated
cultural and language backgrounds in a pluralistic classroom.
Practice safe, legal and ethical use of digital information and technology, including respect for copyright, intellectual property and the appropriate documentation of sources. Describe and analyze research findings from a classroom intervention, discussed in context of professional literature and policy, to a broader educational community in writing and orally using editorial style as directed.
STP 396. Individual Study
(1-6). May be repeated if subject is different.
STP 397. Honors (1-12).
Prerequisite: admission to department honors program.
STP 398. Special Topics (1-
6). May be repeated if subject is different.
STP 399. Seminar (1-5). May
be repeated if subject is different.
STP 496. Individual Study
(1-6). May be repeated if subject is different.
STP 497. Honors (1-12).
Prerequisite: admission to department honors program.
STP 498. Special Topics (1-
6). May be repeated if subject is different.
STP 499. Seminar (1-5). May
be repeated if subject is different.
STP 307A. Functions and Modeling for STEM
Teaching (3). Engages
students in explorations and lab activities designed to strengthen and expand their understanding of functions at the secondary level. Topics of investigation may include, function properties, patterns, linear, exponential, trigonometric and logistic models. Prerequisites: STP 303 and MATH 153 or MATH 154 or MATH 170 or MATH 172. Upon successful completion of this course, the student will be able to:

CP*: Engage in relevant labs by collecting and analyzing data.
CP/PP: Demonstrate proficiency in the use of technology by collecting and analyzing data
CP : Evaluate the properties of various mathematical models such as linear, quadratic, exponential, logistic, and sinusoidal.
CP: Evaluate sets of data to determine the most appropriate model then fit the model to the data set and use it to make predictions.
CP: Demonstrate accurately (oral and written) mathematical concepts and procedures. CP: Model mathematically everyday problems using mathematical functions or data analysis to make sense of the everyday phenomena. E: Analyze instructional strategies with regard to equitable instructional practices including strategies required to support students with special needs.
STP 307B. Functions and Modeling for Secondary Mathematics (3). Candidates will use inquiry explorations and peer collaborations to derive and explain results, models, and proofs related to important secondary math concepts. Candidates will examine the secondary math curricula relative to CCSS, math and society. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisites: MATH 265 and STP 303.
Upon successful completion of this course, the student will be able to:
Construct oral and written explanations and analysis of mathematical knowledge specific to the secondary math curriculum.
Model mathematically everyday problems using mathematical functions or data analysis to make sense of the everyday phenomena.

Demonstrate (oral and written) mathematical concepts and procedures effectively and with mathematical precision. Use technological tools strategically to teach and solve mathematical problems. Demonstrate teaching strategies for students with special learning needs (ELL, students with exceptionalities, etc.).
Use the CCSS Math to make curricular decisions and discuss the connections between the secondary and university math curricula (ie. use curriculum mapping). Find and present connections between the culture (language, art, history, science, etc.) and important secondary mathematical concepts.
STP 307C. Computer Science for STEM Teaching (3). Candidates will engage in explorations and lab activities to strengthen and expand their understanding of software engineering development, computer science practices, and their equitable application to the K-12 classroom environment. Course will be offered on odd numbered years (Winter). Prerequisites: STP
303 and eligible for MATH 154.

Upon successful completion of this course, the student will be able to:
Promote and model the safe and effective use of computer hardware, software, peripherals and networks
Plan for equitable and accessible classroom, lab and online environments that support effective and engaging learning
Demonstrate professional knowledge and skills in their field and readiness to apply them.
Identify and participate in professional computer science
and computer science education societies, organizations and groups that provide professional growth opportunities and resources

Demonstrate knowledge of evolving social and research issues relating to computer science and computer science education
Apply local, state, and national content and professional standards and requirements to K-12 computer science learning progressions
SUST 301. Introduction to Sustainability (4). Students will learn about a variety of concepts related to sustainable development and sustainable environments. Emphasis will be placed on literature focusing on implementation of sustainability projects at local scales. Permission of instructor. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to:
Outline difficulties and challenges in developing sustainable practices using the variety of definitions for sustainability.
Interpret the impacts of waste streams on campus and/or the greater community. Justify inclusion of sustainability initiatives to campus and community based projects.
Evaluate impact of sustainability-centric projects can have on a variety of scales including campus and the greater community. Construct environmental impact goals to which their proposed projects align.

## SUST 309. Sustainability

Civic Engagement
Experience (1-6). Student will engage in community and/or campus based academic service learning related to sustainability. Grade will either be $S$ or $U$. May be repeated up to 12 credits. Course will be offered every year (Fall, Winter, Spring, Summer). Upon successful completion of this course, the student will be able to:
Identify and describe a sustainability issue that exists
in the campus and/or community.
Design and propose an academic service learning project that addresses a sustainability issue in the campus and/or community. Apply principles of sustainability to a campus or community based academic service learning project. Relate sustainability program coursework to their academic service learning project. Evaluate impact of sustainability academic service learning project on campus and/or community partner/issue using appropriate measures.

## SUST 487. Sustainability

Project Capstone (1). Project review and evaluation, career planning and portfolio preparation activities. Must be enrolled in Sustainability Certificate. Grade will either be S or U . Course will be offered every year (Spring). Prerequisite: SUST 309. Upon successful completion of this course, the student will be able to:
Synthesize the creative work students formulated in association with a community partner
Analyze and appraise peer presentations to formulate better approaches to deliver creative work
Apply higher order critical thinking and problem-solving skills
Synthesize the knowledge and skills they gleaned from their experiential learning experiences
Demonstrate clear communication strategies and techniques in oral, written, and expressive form.
TH 101. Appreciation of Theatre and Film (4). Viewing, discussing, and comparing film and live theatre performance. Course will be offered every year (Fall, Winter, Spring). AH-Aesthetic Experience.

Upon successful completion of this course, the student will be able to:
Demonstrate a basic understanding of fundamental concepts within theatre arts and film.
Demonstrate knowledge of scholarly and creative methods used within theatre arts and film.
Acquire appropriate vocabulary and engage in discourse about aesthetic expression and/or experience. Demonstrate an understanding of aesthetic activities within their historic, artistic, and cultural traditions.
Apply aesthetic judgment and critical thinking by experiencing and evaluating works of theatre and film.
Demonstrate knowledge of aesthetic expression from diverse perspectives. Apply principles of being respectful audience members.
TH 107. Introduction to
Theatre (4). Overview of the basic elements of the theatre arts and dramatic structure, and the environment for production of plays. Attendance at assigned outside events is required. Course will be offered every year (Fall, Winter, Spring, Summer). AHAesthetic Experience (W). Upon successful completion of this course, the student will be able to:
Identify the fundamental concepts within theatre arts. Demonstrate the scholarly and creative methods used in theatre arts
Acquire appropriate vocabulary and engage in discourse about aesthetic expression and/or experience. Discuss and justify aesthetic activities within their historic, artistic, and cultural traditions. Apply aesthetic judgment and critical thinking by experiencing and evaluating works of art.
Articulate the methods of aesthetic expression from diverse perspectives.

TH 115. Class Piano I (1).
Foundations of piano for
Musical Theatre majors. The
first course in a three course sequence.
Upon successful completion of this course, the student will be able to:
Name and recall the notes on the piano in various ranges Demonstrate a piano proficiency by playing the Major scales up and down one octave from 0 sharps and flats to 4 sharps and flats Demonstrate piano proficiency by playing various pieces from the text
Demonstrate a piano proficiency by playing the chord progression of: I, V7, I in Major and minor keys up to 4 sharps and 4 flats
TH 116. Class Piano II (1). Foundations of piano for Musical Theatre majors. The second course in a three course sequence. Prerequisite: TH 115 , or permission of instructor.
Upon successful completion of this course, the student will be able to: Demonstrate a piano proficiency by playing the harmonic minor scales up and down one octave from 0 sharps and flats to 4 sharps and flats Identify and demonstrate a piano proficiency by playing a five finger pattern in all 12 Major and minor keys Demonstrate piano proficiency by playing various pieces from the text
Demonstrate a piano
proficiency by playing the chord progression of: I, IV, I, V7, I in Major and minor keys up to 4 sharps and 4 flats Demonstrate a piano proficiency by playing various pieces from the text that utilize chord symbols
TH 117. Class Piano III (1)
Foundations of piano for Musical Theatre majors. The third course in a three course sequence. Prerequisite: TH
116, Class Piano II, or permission of instructor.

Upon successful completion of this course, the student will be able to:
Demonstrate a piano proficiency by playing Major, minor, Dominant and diminished chords in Root, 1st , 2nd and 3rd inversions Demonstrate piano proficiency and expansion of repertoire by playing various pieces from the text that utilize chord symbols to harmonize a melody line
TH 140. Introduction to
Theatre Design (3). An introduction to the basic elements of design used to create unified scenery, costume, lighting, makeup, and sound designs with an emphasis in research and conceptualization.

## TH 143. Private Voice

Lessons (1-4). Individual vocal instruction in the musical theatre style. By permission. May be repeated for credit. Grade will either be S or U . Upon successful completion of this course, the student will be able to:
Identify key signatures, time signatures, rhythmic patterns, musical symbols, notes, vocal ranges, common musical terms, etc.
Analyze and interpret music and lyrics from several different musical styles. Identify and select music according to their appropriate vocal range and type. Participate in private musical theatre vocal training sessions. Identify and implement the fundamentals of musical theatre vocal style and technique.

## TH 144. Foundations of

 Acting (3). Introduction to the theory and practice of acting craft, development of the actor's tools, basic acting techniques, including pantomime, vocal conditioning, improvisation, and scene study. Upon successful completion of this course, the student will be able to:Demonstrate an understanding of acting principles and the actor's tools.
Demonstrate a working vocabulary of basic terms and concepts used in the acting process.
Demonstrate the ability to create and build selfconfidence and trust within an acting framework.
Synthesize personal awareness, knowledge of Stanislavski based acting techniques, and analysis of a role through the creation of a fully realized character (including the use of subtext, playing of actions, listening and responding, appropriate physical and vocal choices, and so forth). Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 145. Foundations of Acting II (3). Continuation of the theory and practice of acting craft, development of the actor's tools, basic acting techniques. Prerequisite: TH 144.

Upon successful completion of this course, the student will be able to:
Demonstrate an intermediate level of understanding of acting principles and the actor's tools.
Demonstrate an intermediate level working vocabulary of basic terms and concepts used in the Stanislavski System of acting.
Demonstrate intermediate level of ability to create and build self-confidence and trust within an acting framework. Synthesize personal awareness, knowledge of Stanislavski based acting techniques, and analysis of a role through the creation of a fully realized character (including the use of subtext, playing of actions, listening and responding, appropriate physical and vocal choices, and so forth).
TH 148. Actor Conditioning Monologue (1). Theory, technique, and practice of the acting craft with emphasis on
choosing, analyzing, researching, and preparing monologues for audition and performance. May be repeated for credit. Grade will either be S or U. Prerequisite: TH 244.
Upon successful completion of this course, the student will be able to:
Practice using the actor's basic tools of voice, body, and imagination.
Develop and use basic acting craft vocabulary and basic acting techniques.
Demonstrate and practice using the Stanislavski 10 -system steps in scene and monologue analysis.
Successfully perform stage monologues.
Identify their monologue "type".
Recognize and use on line and printed resources for finding "type" monologues. Recognize effective audition monologues.
Practice cutting and shaping audition monologues to suit time constraints.
Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 161. Intro to Technology 1: Costumes and Makeup (3). Basic introduction to costume construction and makeup application for the theatre. Emphasis on terminology, safe operating procedures and equipment use, basic techniques, and material identification. Required Lab. Prerequisite: admission to the BFA musical theatre or BFA performance specializations. Upon successful completion of this course, the student will be able to:
Demonstrate basic skills, theory and practice of costume construction, through creative application of skills learned in the course.
Identify the costume shop operating procedures, organizational structure, and personnel.
Demonstrate skill in team work and collaboration.

Demonstrate a working knowledge of the materials, techniques, and skills involved in makeup for the theatre and TV.
Work effectively and safely using creative problem solving and application skills. Demonstrate microphone wearing and basic care.
TH 162. Intro to Technology 2: Scenery and Lighting (3).
Basic introduction to scenic construction and lighting systems common to the theatre. Emphasis on terminology, safe operating procedures and equipment use, basic techniques, and material identification. Required Lab. Prerequisite: admission to the BFA musical theatre or BFA performance specializations. Upon successful completion of this course, the student will be able to:
Use tools, machines and hardware in a safe and proper fashion to build a piece of theatre scenery.
Demonstrate proper use and care for painting tools. Demonstrate how to operate the counterweight fly system while following proper safety protocol.
Identify the common materials used in theatre scenery construction. Identify and employ the various tools, fixtures, and accessories frequently used in lighting design.
Identify and define the various parts and sub-systems within a theatrical lighting system.
TH 166. Theory of Play Production (3). Theories of production are explored through basic script analysis and the examination of protocol and procedures in the resident production company and a variety of world theatre models.
Upon successful completion of this course, the student will be able to:
Develop knowledge and competent use of the theories, styles, and protocol of the theatre profession.

Critically comment on the strengths and weaknesses of theatre models, as well as how they might best adapt into a theatre career.
Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 201. Dance Production Application (1-3). Skills
learned in the classroom are applied to dance production work for public presentation. May be repeated up to 12 credits. Prerequisite: admission to the theatre major. Upon successful completion of this course, the student will be able to:
Analyze a choreographed dance piece in order to create a design concept.
Apply the steps of the lighting design process as it relates to dance production.
Use the principles of color theory and cueing on stage. Set meetings with collaborators and manage time to meet deadlines on a large project.
TH 202. Performance Studio
(1-3). Skills learned in the classroom are applied to performance in studio work, which may be presented publicly. May be repeated up to 24 credits.
Upon successful completion of this course, the student will be able to:
Demonstrate the ability to work as part of a team through participation in a theatrical production, and find solutions to common problems encountered while working on a theatrical production. Demonstrate an understanding of performance as a part of the production process, an understanding of the dramatic text, and methods of translating text into a stage production.
TH 207. Introduction to Children's Drama (Put on reserve by department 9/16/15) (3). History, literature, and aesthetics of children's drama techniques in the United States and throughout the world. Put on reserve by
department $9 / 16 / 15$, will go inactive $8 / 24 / 18$.
Upon successful completion of this course, the student will be able to:
Display basic knowledge of history of youth theatre in the US, including important artists, performance trends and production innovations. Analyze the historical development of child drama performance and apply the analysis within a theatrical context.
Analyze how theatre shapes and reflects ideas, issues and themes in a variety of cultures. Understand theatre as a learning process of child development. Articulate the logical rationale for the role of theatre in school curriculum, including the philosophical and social foundations for theatre education.
Assess qualities needed by actors, directors and designers in the practice of youth theatre.

## TH 215. Music

Fundamentals I (3). Basic concepts of the fundamentals of music theory dealing with notation, melody, rhythm and harmony as demonstrated through written and aural analysis. This course is the first in a three-course harmony sequence. Courses must be taken in sequence. Prerequisite: completion of MUS 152A with a B- or above or concurrent enrollment.
Upon successful completion of this course, the student will be able to:
Identify, treble and bass clef, the grand staff, note and rest values, simple time signatures, whole and half steps, major and minor pentascales, triads, harmonic and melodic intervals, correct notation of music, analysis and musical terms.
Identify intervals, major and minor ascending and descending scales, and various rhythm patterns.
TH 216. Music
Fundamentals II (3). Basic
concepts of the fundamentals of music theory dealing with notation, melody, rhythm and harmony as demonstrated through written and aural analysis. This course is the second in a three-course harmony sequence. Courses must be taken in sequence. Prerequisites: completion of TH 215 with a B- or above and MUS 153A with a B- or above, or concurrent enrollment in MUS153A.
Upon successful completion of this course, the student will be able to:
Identify technical degree names, chromatic scales, augmented and diminished intervals, interval inversions, triads, cadences, transposition, whole tone, pentatonic, blues and octatonic scales, music terminology.
Aurally identify intervals, major and minor ascending and descending scales, and rhythmic dictation.
TH 217. Music
Fundamentals III (3). Basic concepts of the fundamentals of music theory dealing with notation, melody, rhythm and harmony as demonstrated through written and aural analysis. This course is the third in a three-course harmony sequence. Courses must be taken in sequence. Prerequisites: completion of TH 216 with a B- or above, and completion of MUS 154A with a B- or above or concurrent enrollment in MUS154A. Upon successful completion of this course, the student will be able to:
Identify Alto and Tenor clefs, technical degree names, chromatic scales, augmented and diminished intervals, simple and compound interval inversions, dominant and diminished seventh chords, transposition from minor to minor, whole tone, pentatonic, blues and octatonic scales, modes, simple compound and hybrid time, analysis of musical scores, and Italian
terms. Ear training, interval singing, and rhythmic and melodic dictation.
TH 243. Singing for Actors
(1). An introduction to the mechanics of singing as applied to presentations of theatrical show music. May be repeated for up to 9 credits. Upon successful completion of this course, the student will be able to:
Identify key and time signatures analyze and interpret lyrics and music Identify and choose music according to appropriate vocal range
Demonstrate singing technique
designed for musical theatre
performance in the
presentational style
Prepare to audition at the collegiate level
TH 244. Basic Acting I (3).
Theory and practice of essentials of acting craftdevelopment of the actor's tools, the voice, body, and imagination. Introduction to Stanislavski method, with viewpoints and composition. Upon successful completion of this course, the student will be able to:
Have an understanding of and
practice using the actor's basic tools of voice, body and imagination
Develop and use basic acting craft vocabulary and basic acting techniques Identify demonstrate and practice understanding of basic American and European acting methods and schools including Stanislavski, Adler, Strasberg and Meisner
Demonstrate and practice using the Stanislavski 10 system steps in scene and monologue analysis
Successfully perform stage
monologues and dual scenes Identify, discuss, demonstrate and practice stage movement techniques, including viewpoints of time (tempo, duration, kinesthetic response, repetition) and space (shape, gesture, architecture and
topography) with composition work
Practice working as an ensemble, developing kinesthetic connection through movement
Create new works through movement and improvisation Apply the collaborative process through theatre work Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 245. Basic Acting II (3).
Theory and practic of essential acting craft-development of the actor's tools, the voice, body, and imagination. Physical theatre techniques, improvisation, scene study. Prerequisite: TH 244.
Upon successful completion of this course, the student will be able to:
Demonstrate a basic acquaintance with the Michael Chekhov acting technique as it applies to the physical instrument: awareness of the human body as an expressive instrument, and its relationship to space; principles of physical creation such as form, rhythm, tempo, repetition, contrast, objectivity, qualities, radiation and imagination.
Demonstrate a basic acquaintance with the Michael Chekhov acting technique as it applies to character: Learning and applying the principles of characterization including Center, Personal Atmosphere. Archetype, Imaginary Body, and Psychological Gesture. Demonstrate a basic acquaintance with the Michael Chekhov acting technique as it applies to independent yet interrelated tools of the rehearsal process: techniques that allow the actor to realize Who is playing the Actions, and How they should be played.
Use physical acting techniques with text
Apply the above techniques and synthesize them using Stanislavski's IO system steps.in the analysis,
preparation, rehearsal and performance of a scene Apply the above techniques and use them in the creation of a Fictional Character and the performance of an original monologue for the Character. Demonstrate and practice basic Meisner improvisation techniques which lead to: connecting with scene partners, listening, following impulses, pursuing objectives, creating arcs, raising stakes and making active choices based on personal and partner objectives coupled with given circumstances.
Devise and rehearse an active organically connected progression of movement choices based on written stage direction and music demonstrating an understanding of shape, tempo, architecture and topography integrated with character and objective.
Apply the collaborative process through theatre work. Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 246. Basic Acting III (3).
Theory and practice of essential acting craftdevelopment of the actor's tools, the voice, body, and imagination. Concentration on physical theatre techniques, scene study, and text analysis. Prerequisite: TH 245.
Upon successful completion of this course, the student will be able to:
Demonstrate a basic acquaintance with the Rasaboxes acting technique as it applies to the physical instrument: identification of the nine rasas plus breathing and movement technique as
they relate to the rasas
Demonstrate a basic acquaintance with the Rasaboxes acting technique as it applies to character: applying the rasas to character objective and subtext, using the rasas as an exploration method

Demonstrate a basic acquaintance with the Rasaboxes acting technique as it applies independent yet interrelated tools of the rehearsal process: analysis mid use of the rasas with text Apply the above techniques in improvisational work Use physical acting techniques with text
Use text to identify and articulate beats, the character's interior monologue, objectives and subtext as they relate to Stanislavski's IO-system steps
Synthesize bold physical choices, full physical commitment, adopting another's point of view, engaging the audience while listening and responding to the audience in a fully realized solo performance Apply the collaborative process through theatre work Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 248. Vocal Conditioning for the Actor (1). Study and application of the techniques used in the development of the actor's foundational vocal conditioning. Co-requisite: TH 245.

Upon successful completion of this course, the student will be able to:
Apply various vocal production techniques which will include emphasis on support, placement, articulation, use of resonators, and tone focus. Methodologies may include various recognized systems of voice for the actor.
Apply various physical techniques supporting vocal production such as relaxation, stillness and focus of movement, flexibility, strength, balance, coordination, posture, alignment, and expanding methods of expression through a body-mind-voice collaboration. Develop effective and relevant quarterly goals for vocal
production specific to the student's individual needs.
TH 249. Vocal Conditioning for the Actor II (1). Study and application of the techniques used in the development of the actor's foundational vocal shaping. Co-requisite: TH 246. Upon successful completion of this course, the student will be able to:
Apply various vocal shaping techniques which will include emphasis on support, placement, articulation, use of resonators, and tone focus. Methodologies may include Lessac, Berry, Linklater, Mayer, and other recognized systems of voice for the actor. Apply various physical techniques supporting vocal shaping like relaxation, stillness and focus of movement, flexibility, strength, balance, coordination, posture, alignment, and expanding methods of expression through a body-mind-voice collaboration.
Develop effective and relevant quarterly goals for vocal shaping specific to the student's individual needs.
TH 252. Stage Dance (1). Dance techniques as they pertain to theatre, such as Contemporary Musical Theatre Jazz, Musical Theatre Tap, Golden Age, Fosse, and others May be repeated up to 6 credits if topic differs.
Upon successful completion of this course, the student will be able to:
Demonstrate dance terminology based on the fundamental terminology of ballet.
Demonstrate the terminology and the movement associated in putting together a dance combination in an audition situation.
Competently perform and execute a stage dance piece.
TH 256. Sound and Mixing Aesthetics and Essentials (3).
Students will gain an understanding of how to mix on a digital console. Audio/sound aesthetics and
fundamentals will also be the focus of this course. FILM 256 and TH 256 are cross-listed; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Demonstrate competency on a
digital and analog mixing board
Display an ability to mix a multi-source input into a coherent and fluid mix. Display fundamental skills on how to maintain and dress microphones on an actor Display basic audio connection and hardware skills. Demonstrate the ability to successfully mix live microphones.
TH 261. Costume Technology (3). Basic theory
and study of costume construction and fabrication for the theatre. Emphasis on terminology, safe operating procedures of sewing machinery, basic stitches, and fabric identification. Lab required. Prerequisite: admission to the theatre BA or BFA; or apparel design minor. Upon successful completion of this course, the student will be able to:
Demonstrate basic skills, theory and practice of costume construction, through creative application of skills learned in the course.
Comprehend the costume shop-its operating procedures, organizational structure, and personnel.
Demonstrate skills in team work and collaboration.
TH 266. Theatre Drafting (3).
Supervised study and practice of drafting theatrical sets, properties, and light plots. Prerequisite: admission to the theatre major.
Upon successful completion of this course, the student will be able to:
Ability to produce theatrical drafting, utilizing hand drafting and computer drafting techniques.

Identify and utilize basic graphic standards and USITT graphic standards for scenery and lighting.
Draft a scenic floor plan, CL section, elevations, Isometric, 3D Model and Rendering.
TH 267. Scene Technology
(3). Scene construction, rigging, painting, and shifting techniques. Lab required. Prerequisite: admission to the theatre BA or BFA.
Upon successful completion of this course, the student will be able to:
Discuss the Safety procedures appropriate to Theaters in general and our Theatre in particular.
Identify, discuss and follow the safety rules for the tools and machines used in the scene shop.
Identify and operate the standard tools and machines used in the Theatre scene shop. Identify the basic hardware used in the theatre and state its proper use.
Identify and describe the basic theatrical construction techniques used in the construction of flats, platforms and free form scenery. Build a scenic unit (stage flat, studio flat, or a platform) as requested by the instructor. Identify the types of paints and textures used in the Theatre, and discuss their application techniques in reference to stage scenery.
Perform five painting and texturing techniques assigned by the instructor.
Identify and discuss the difference between pin and rail, and a counterweight fly systems.
Perform and describe the safe operation of the counter weight fly systems, including the safe loading and unloading of the systems.
TH 268. Lighting Technology
(3). Applied study of lighting instruments, lighting accessories, hanging, cabling, focusing, lighting control systems, safety, and maintenance. Lab required.

Prerequisite: admission to the theatre arts BA or BFA, or film and video studies major. Upon successful completion of this course, the student will be able to:
Identify and employ the various tools, fixtures, and accessories frequently used in lighting design.
Work effectively as a valuable and productive member of a lighting crew.
Read and create paperwork that describes a lighting design and use the information to describe and/or execute a design.
TH 270. Stage Makeup (3).
The history, functions, materials, and techniques of makeup as a theatrical art. Production application required. Prerequisite: TH 166.
TH 278. Creative Drama in the Classroom (3). Theories and practices of theatre and drama as an educational and social tool. Creating theatre for and with youth. Includes opportunities to create and utilize techniques in both performance and learning environments. Course will be offered every year (Summer). Prerequisite: admission to the Theatre Education BFA, or permission.
Upon successful completion of this course, the student will be able to:
Create and evaluate children's theatre.
Integrate theatre, other art forms, and subject areas.
Apply theatre in academic settings.
Improvise and create original plays from poetry, stories, and similar sources.
Reflect on the strengths and challenges of using drama activities in academic settings.
TH 290. Cooperative Education Portfolio (1-6). A collection of individualized contracted field experiences with the industry. This contractual arrangement involves a student learning plan, with a cooperating employer, under faculty coordination, that must be
completed prior to the first experience to be included in the portfolio. By permission. May be repeated up to 6 credits. Grade will either be S or U.
Upon successful completion of this course, the student will be able to:
Apply theory to practice. Implement skills learned in the classroom in an actual working situation.
Demonstrate positive work habits.
Demonstrate accountability
and professionalism.
TH 294. International Theatre Experience Preparation (1). Preparation
and planning toward a significant international experience where students explore culture, art, norms and society. Attention to itinerary, visa and passport requirements. Travel fees will be assessed as part of this course in anticipation of the overall cost of the international travel. OISP fee applies. May be repeated for credit up to 5 credits as topic changes. Grade will be S or U .
Upon successful completion of this course, the student will be able to:
Recognize processes of travel itinerary creation and the documents required for travel in the destination country Demonstrate understanding of the steps required to procure travel documents
Demonstrate understanding of itinerary creation process Recognize safe practices as related to international travel Describe significant cultural practices and influences in the travel destination country
TH 295. Theatre Education Portfolio (1). Live Text portfolio will be employed to build professional portfolios, documenting theatre training, and compliance with state certification and NCATE standards. May be repeated for credit. Grade will either be S or U.

Upon successful completion of this course, the student will be able to:
Compile and mount artifacts on LiveText demonstrating their competency in State certification standards. Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 298. Special Topics (1-6).
TH 299. Seminar (1-6). May
be repeated if subject is
different.
TH 300. Rehearsal and
Performance (1-2). Open only
to non-majors participating in theatre arts productions. Does not satisfy any requirement for the major. Course meets with appropriate application course and instructor. May be repeated for credit. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job.
Fulfill assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with the job description.
Competently use the tools, materials, equipment, and techniques associated with the job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production, and find solutions to common problems encountered while working on a theatrical production. Demonstrate an understanding of design unity, an understanding of the dramatic
text, and methods of translating text into a stage production.

## TH 301. Production

Application (3). Skills learned in the classroom are applied to production work for public presentation. Different sections will be offered for participants in each area of the production team. May be repeated up to 18 credits. Prerequisite: admitted to the theatre arts major or dance performance minor. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description. Fulfillment of assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Follow written and verbal instructions accurately.
Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a $\cdot$ theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.
TH 302. Performance
Application (3). Skills learned in the classroom are applied to performance work on productions for public
presentation. May be repeated up to 18 credits. Prerequisite: admission to the theatre major. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description. Fulfillment of assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Follow written and verbal instructions accurately. Accurately transfer information from - one team member to another.
Demonstrate an ability to meet deadlines
Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a - theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.

## TH 303. Management

Application (3). Skills learned in the classroom are applied to stage management work on productions for public presentation. May be repeated up to 18 credits. Prerequisite: admission to the theatre major. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description.

Fulfillment of assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Follow written and verbal instructions accurately. Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.
TH 312. Creative Dramatics in School and Leisure (Put on reserve by department
$9 / 16 / 15$ ) (3). Theory and practice of dramatic
improvisation as a stimulus for learning and creative recreation. Focus on exploratory drama for language acquisition and social interaction. Put on reserve by department $9 / 16 / 15$, will go inactive 9/16/18.
Upon successful completion of this course, the student will be able to:
Learn creative dramatic techniques including movement, improvisation, voice and choral poetry, storytelling and creating original plays and performances from poetry and stories

Use different theatre techniques pertaining to target audiences and age groups Identify and apply processes and tools within story making, improvisation and movement forms
Integrate other art forms with theatre arts
Integrate theatre with other subject areas
Understand theatre arts as it applies to special needs student populations
Understand the connection of theatre to other subject areas Critically comment on the strengths and weakness of their own work as well as the work of their peers, developing assessments for creative dramatics
TH 313. Writing for Theatre for Young Audiences (3).
Study, practice, and creation of original works of Theatre for Young Audiences (TYA) focusing on playwriting. Topics include TYA subcategories: Theatre for the Very Young, Children's Theatre, Young Adult
Theatre, and Crossover. Course will be offered on even numbered years (Spring). May be repeated up to 6 credits. Prerequisites: TH 166, or admission to the creative writing minor.
Upon successful completion of this course, the student will be able to:
Apply the collaborative process through theatre work Identify and apply the process of generating dramatic literature and techniques for producing and creating plays for different age groups Identify and apply elements, processes and tools within playwriting
Create new works through the
playwriting process employing the principles of creation discuss
Create new works for a variety
different age groups and diverse populations Critically comment on techniques of adapting children's literature for the
stage in existing plays and scripts
Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 329. Directing I (3).
Participation in and direction of fundamentals of applied directing. Prerequisites: TH 144 or TH 244 or instructor permission.
Upon successful completion of this course, the student will be able to:
Employ metaphor in storytelling
Analyze and identify structure and story components in a play Identify climactic moment in a scene
Practice basic elements of visual and oral communication for the stage
Develop and use a ground plan implementing Hodge's principles
Demonstrate appropriate principles of picturization and composition for the stage Practice the director's role in communicating with other theatre artists in preparing a dramatic production Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 330. Introduction to
Playwriting (4). Fundamentals and practice in dramatic writing techniques and styles. May be repeated up to 8 credits. Prerequisites: TH 107 and TH 166, or admission to the English writing specialization.
TH 332. New Play Production (Put on Reserve $9 / 16 / 16$.) (2). An exploration of the problems and techniques specific to the production of original, student-written plays. Participation in public performances of new plays, including weekend and evening activities is required. May be repeated for credit. (Put on Reserve 9/16/16. Last
taught in 2013. Will go inactive $8 / 24 / 19$.)

Upon successful completion of this course, the student will be able to:
Acquire and demonstrate an understanding of writing a play Identify, interpret, and assess the director-writer relationship in production
Participate in the rehearsal and rewriting process
Develop analysis skills for original playwriting Join a production team and contribute to public performance of a new play Identify and evaluate successful work and areas for improvement

## TH 333. Stage Combat

Fundamentals (3). The study
and practice of basic skills, techniques, and safety factors used in staging and performing violence for the stage and media. Focus is on falls, rolls, and unarmed combat. May include use of one historical weapon. Prerequisites: TH 144 or TH 244.
Upon successful completion of this course, the student will be able to:
Identify and implement a basic vocabulary used for stage combat.
Demonstrate basic safety techniques and their application to stage combat. Perform automatically basic stage combat techniques taught for each weapon.
Develop confidence in the movement potential of the actors' body.
Develop physicalized acting skills.

## TH 335. Movement for the

Actor (3). The study and practice of various movement disciplines, such as Laban, Suziki, Feldenkrais, Chekhov, Lessac, or Alexander, to enhance flexibility and expressiveness of the actor's body in a variety of performance applications. May be repeated if content or title changes for up to 9 credits. Prerequisites: TH 144 or TH 244.

Upon successful completion of this course, the student will be able to:
Identify and implement a vocabulary used for the Suzuki Method.
Demonstrate correct techniques used for each exercise learned. Memorize \& perform automatically each exercise learned.
Develop confidence in the movement potential of the actors' body.
Develop physicalized acting skills.
Develop awareness of personal physical strengths \& weaknesses.
TH 342. Dialects for Stage and Screen (3). Dialect acquisition for use in stage and on-camera work. Dialects studied will include a range of material from British Standard, Cockney, New York, Irish, Scottish, and Southern, and will feature the implementation of phonetics and a proficient use of the vocal instrument.
May be repeated up to 6 credits if topic changes. Prerequisite: TH 246.
Upon successful completion of this course, the student will be able to:
Apply the phonetic alphabet to the study of dialects, through readings, demonstrations, testing, and scene work, students will be able to translate written text into phonetic equivalents. Develop skills in both oral and written dialect work of those studied, including: British, Standard, Cockney, Scottish, New York, Irish; through exercises, demonstrations, quizzes, practice and performances. Create a dialect resource library by constructing a journal that features resources for each dialect studied. Sources include movies, television, CD's, DVD's, dialect tapes/CD's, magazine and newspaper articles, books, play scripts, internet.
TH 343. Singing for Actors II
(1). An introduction to the
mechanics of singing as applied to presentations of theatrical show music. May be repeated up to 9 credits. Prerequisite: TH 243.
Upon successful completion of this course, the student will be able to:
Identify key and time signatures analyze and interpret lyrics and music Identify and choose music according to appropriate vocal range
Demonstrate singing technique designed for musical theatre performance in the presentational style
Prepare to audition at the collegiate level

## TH 344. Intermediate Acting

I (3). Character interpretation and scene study through script analysis and scene work. TH 344 and TH 345 to be taken in sequence. Prerequisite: TH 246.

Upon successful completion of this course, the student will be able to:
Analyze at least one play for structure, content, and character.
Play actions and objectives in monologues and scenes. Practice active listening during scene and/or monologue work. Practice the physicalized use of subtext during scene and monologue work. Practice physical and vocal characterization in the creation of character(s).
Demonstrate professional rehearsal and critique methods, both in giving and receiving critique.
Demonstrate personalization and honesty in scene and monologue work. This will include the use of sense memory and emotion memory. Record notes (in a journal) on performance work (both when participating and observing), critiques (when giving and receiving), rehearsals, and exercises.
TH 345. Intermediate Acting
II (3). Character interpretation and scene study through script analysis and scene work.

Courses are to be taken in sequence. Prerequisite: TH 344.

Upon successful completion of this course, the student will be able to:
Analyze text in order to discover the comic intention and style of the author Incorporate coaching/direction and employ exercises work in scene work
Memorize materials with complete accuracy and rehearse sufficiently both during class and outside of class to present polished, professional scene work Come prepared to class and work well with scene partner Discover and demonstrate the basic components of style and perform them in three different scenes with consistency and honesty
TH 350. Theatre and Arts
Management I (4). Policy and practice of theatre and arts management including budgets, contracts, purchasing, staffing, and organizational development.
Upon successful completion of this course, the student will be able to:
Create an arts company with effective vision statements, mission statements, goals, structure.
Spend 15 hours service
learning with an arts organization on a project-approved by the instructor in advance.
Make presentations demonstrating fiscal requirements for effective art management.
Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 351. Theatre and Arts
Management II (4). Policy
and practice of theatre and arts management including marketing, box office, purchasing, staffing, and audience development. Upon successful completion of this course, the student will be able to:

Demonstrate a working knowledge of the types and use of various marketing tools as they relate to arts marketing and be able to comment on the strengths and weaknesses of various marketing approaches Develop a working budget for a marketing campaign
Document various career paths available within the context of art marketing
Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 352. Stage Dance II (2).
Advanced dance technique in styles as it pertains to theatre; in topics such as contemporary musical theatre jazz, musical theatre tap, callbacks, Golden Age, Fosse, and directed practice of others. May be repeated up to 12 credits if topic differs. Prerequisites: TH 252 and permission of the instructor.
Upon successful completion of this course, the student will be able to:
Articulate and demonstrate dance terminology based on the fundamentals of jazz and ballet.
Demonstrate improvement dance technique throughout the course of the quarter and learn to perform with confidence. Articulate the terminology and technique of dance steps learned in class.
Describe and demonstrate "how" to learn choreography quickly and accurately in order to perform with confidence, accuracy and proper audition/callback etiquette. Reflect on and demonstrate how to clean and improve a dance. There is much more to dancing than learning the sequence of choreography.
TH 353. Stage Properties (3).
Research, methodology, design, and construction of stage props and furniture. Prerequisite: TH 267.
Upon successful completion of this course, the student will be able to:

Provide a forum in which to discuss the needs for properties in a theatrical production. Provide an environment where students can explore the role of props designer.
Provide a venue where students can acquire practical theatrerelated skills.
Establish a conceptual foundation for understanding the props design process. Develop proficiency in analyzing the play for thematic content and physical requirements. Develop immediate visual responses to a text. Explore the ramifications of properties design choices on the work of the actor and the director - to understand properties as they affect character interaction. Establish the importance of research in the design process. Familiarize the student with an array of visual communication tools utilized by the props designer.
Broaden the student's knowledge of accepted industry standards applied to the properties design. Identify a personal approach to effective design development and communication for the student.
Further develop written and oral communication skills through practice with written design concepts, classroom discussion, and verbal presentation of design projects.
TH 354. Scene Painting (3). Study in the methodology and skills of scene painting, materials, and techniques.
TH 356. Stage Sound (3).
Engineering and operation of the technologies for theatrical sound. Prerequisite: TH 166. Upon successful completion of this course, the student will be able to:
Identify the pieces of equipment in a typical sound reinforcement system and discuss what they do using terms common to sound reinforcement and theatre sound design

Demonstrate and diagram the signal flow in a typical sound reinforcement system Trouble shooting a troubled sound reinforcement system
Analyze a theatrical script in order to create an audio design concept
TH 357. Entertainment
Rigging (3). Course is an introduction to the materials, equipment, methods and safety for entertainment rigging. Students will be exposed to a variety of rigging systems and their safe operation and maintenance. Prerequisite: TH 268 or permission of instructor. Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of geometry and rigging math. Demonstrate an understanding of the application of entertainment industry rigging practices and standards. Identify components used for entertainment rigging, their normal applications and limitations.
Demonstrate an understanding of safety practices and procedures.

## TH 360. Stage Management

(3). Techniques, communication methodology, resources, practices, and technical training for the stage manager. Prerequisite: TH 166. Upon successful completion of this course, the student will be able to:
Develop knowledge of the theory and skill in the practice of Stage Management. Develop in the role of the Stage Manager. Critically comment on the strengths and weakness of their work as well as the work of their peers.
TH 361. Stage Costuming (3). Further study of construction and fabrication for the stage. Emphasis on patterning, dyeing, and distressing costumes for the stage. Prerequisite: TH 261.
Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of construction standards as they relate to durability, stageworthiness, and aesthetic quality of theatrical costumes.
TH 362. Costume Crafts (3). Advanced study in fabric manipulation and the construction of costume crafts, and properties. Special focus on advanced dying techniques, fabric painting, distressing, millinery, jewelry, manipulation, and body padding. Prerequisite: TH 261. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the theory and skill in the practice of fabric manipulation, using preexisting pieces to create different looks
Demonstrate an ability to change the color or texture of fabric using dye, bleach, and distressing techniques Produce a book of technique samples including new techniques developed individually Demonstrate knowledge of millinery techniques, and jewelry manipulation
Produce a series of soft caps, buckram hats, and found object jewelry
Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 363. Theatre History I
(4). From origins to the Elizabethan Era. Prerequisite: TH 107.
TH 364. Theatre History II
(4). From the Elizabethan period to Ibsen. Prerequisite: TH 107.
TH 365. Theatre History III
(4). From Ibsen to the present. Prerequisite: TH 107.
TH 366. Theatre Rendering
(3). Exploration and application of various rendering styles and media for theatrical applications. Upon successful completion of this course, the student will be able to:

Demonstrate a variety of rendering techniques for theatre design
Demonstrate rendering in a variety of media
Demonstrate the difference in rendering for various areas of theatre design
Critically asses their work and
work of their peers
TH 367. Stage Scenery (3).
Introduction to technical direction and auditorium management. Advanced stage scenery construction techniques are studied and applied. Prerequisite: TH 267. Upon successful completion of this course, the student will be able to:
Articulate the standards of
OSHA regulation, OSHA
Hazard Communication
Standard, Federal Hazardous. Substance Act, Fire codes, general theatre safety, \& scene shop safety as they pertain to the theatre and scene shops Demonstrate their knowledge of these safety regulations by following them in class Demonstrate how to use a wire feed welder
Demonstrate basic welding skills
Identify the basic drafting symbols and their conventions Draw a basic technical or shop drawing of a project to be built Discuss the relationship between time/money/personnel management
Develop a materials list, develop a cost estimate from that list, develop an estimate of the manpower needed to build the project on the drawing, and develop a construction calendar for the project Properly develop a rigging system to fly a load/item on the single purchase counterweight fly system
Properly and safely load and unload an item on the counterweight fly system Discuss the uses, advantages, disadvantages \& strengths of materials commonly used in the construction of theatre scenery

TH 368. Stage Lighting (3).
Study of electricity, color, distribution, drafting, lighting paperwork, and light programming. Prerequisites: TH 266 and TH 268. Upon successful completion of this course, the student will be able to:
Identify and employ the functions of light and industry standard lighting symbols. Synthesize information about angle, intensity and color into a design idea.
Accurately trouble-shoot common problems during the lighting production process.
Use elementary research techniques and creative problem solving to create solutions to lighting problems. Use cuing to create a dynamic visual environment.
TH 374. Introduction to Acting for the Camera (3). Introduction to the study and technique of acting for the camera. Topics may include the following; feature film, motion capture for animation and media, scenes and monologues on camera. Prerequisite: TH 344.
Upon successful completion of this course, the student will be able to:
Illustrate and implement accepted industry techniques for acting in front of the camera
Create believable characters
for television and film Demonstrate an understanding of the basic techniques of television production, including camera operation, basic camera direction, lighting, videotaping and sound recording as proven through practical application
TH 375. Asian Drama (4).
Survey of the traditional
theatre, puppetry, and dance-
drama forms of Asia.
Historical development.
Cultural and aesthetic aspects of the text in performance. Influence on contemporary world theatre. AH-Aesthetic Experience (W). Prerequisite: sophomore standing or above.

TH 377. Staging Gender (4).
Concepts of gender and their historical development are examined through analysis of dramatic literature, films, and contemporary performance culture. Prerequisite: sophomore standing or above.
TH 378. Theatre Facilities Management (3). The study and practice of specialized procedures for maintaining and managing theatre and auditorium stages including rigging, lighting, sound and related equipment. Permission by department. Course will be offered every year (Summer).
Prerequisite: admission to the theatre education program, or permission.
Upon successful completion of this course, the student will be able to:
Identifies and applies theatre facilities and theatre management skills. Identifies and applies appropriate safety procedures in a theatrical setting. Identifies and applies relevant legal requirements in a theatrical setting.
TH 380. Studies in Drama
(5). Intensive study of representative examples of drama. ENG 380 and TH 380 are cross-listed courses; students may not receive credit for both. May be repeated up to 15 credits. Prerequisites: ENG 302 and ENG 303, or admission to the theatre arts major.
Upon successful completion of this course, the student will be able to:
Identify the formal elements and generic conventions of drama, including plot, character, and scene, and explain how formal choices contribute to meaning. Compare and contrast dramatic works based on theme, genre, historical context, and/or cultural context.
Identify and explain the theatrical elements and conventions of drama and will be able to relate the material production of plays to
historical and/or cultural conditions.
Understand and express the thematic concern $s$ of plays as aesthetic works. Write formal and informal responses to dramatic texts that demonstrate engagement, reflective thought about the writer's own assumptions, effective inquiry, and responsible interpretation.
TH 382. Diverse Experiences in American Drama (4). Study of contemporary American multi-cultural plays by people of color and other ethnic groups. AH-Aesthetic Experience (W). Prerequisite: ENG 101.
Upon successful completion of this course, the student will be able to:
Articulate the requirements of informed citizenship based on analysis of social, economic and/or political processes issues and events.
Employ the use of vocabulary and concepts in the analysis of contemporary multicultural dramatic literature and theatre history, in the examination of the root causes of the Zoot Suit Riots.
Analyze and articulate how a Mexican American playwright used the historical event to create a play that illuminates the social, economic and political pressures that led to riot.
Identify the influence of the various institutions, cultures and traditions of the United States.
Identify and analyze the influences that government and religion have had on the theatre history and drama of Native Americans.
Apply critical thinking and ethical reasoning to individual and collective decision making. Identify how the playwrights address the social, economic and political influences in their plays.
Critically analyze ways in which the past affects the present and future.

Identify the principles articulated by Dr. Come! West in his lecture "Race Still Matters" and apply his ideas and principles to the analysis several plays and theatre history of African Americans. Apply critical thinking and ethical reasoning to individual and collective decision making.
Analyze the motivations of one characters in three African American dramas.
Apply critical thinking and ethical reasoning to individual and collective decision making. Identify three critical decisions that were made by characters and reflect on the ethical and collective impact of their decisions on the dramatic world portrayed.
TH 384. Puppetry (Put on Reserve 9/16/16.) (3). Survey of puppetry principles and their application to the classroom, recreational facility, and theatre. Production techniques. Analysis of literature adaptable to theatre form. (Put on
Reserve 9/16/16. Last taught in 2012. Will go inactive

8/24/19.) Prerequisite: TH 166.
TH 393. Theatre Laboratory
(1). Practical experience in all aspects of theatre production to better prepare for career opportunities. May be repeated up to 3 credits.
Upon successful completion of this course, the student will be able to:
Demonstrate a process or method of construction unique to one of the following areas: costuming, lighting, props, puppetry, scenery, or promotional aspects of the theatre.
Demonstrate commitment to attaining the goals of technical theatre in support of the overall theatre production.
Demonstrate the work process of the various shops and work environments that support theatrical production, and their role in the production. Demonstrate the basic principles of workplace regulation, safety, personal interaction and responsibility.

TH 396. Individual Study (1-
6). May be repeated if subject is different.
TH 397. Honors (1-12).
Prerequisite: admission to department honors program.
TH 398. Special Topics (1-6).
TH 400. Rehearsal and
Performance (1-2). Open only to non-majors participating in theatre arts productions. Does not satisfy any requirement for the major. Course meets with appropriate application course and instructor. May be repeated for credit.
Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job.
Fulfill assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with the job description.
Competently use the tools, materials, equipment, and techniques associated with the job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as pan of a team through participation in a theatrical production, and find solutions to common problems encountered while working on a theatrical production.
Demonstrate an understanding of design unity, an understanding of the dramatic text, and methods of translating text into a stage production.

## TH 401. Production

Application (3). Skills learned in the classroom are applied to production work for public presentation. May be repeated
up to 18 credits. Prerequisite: admission to the theatre major. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description. Fulfill assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude. Follow written and verbal instructions accurately. Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description. Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.

## TH 402. Performance

Application (3). Skills learned in the classroom are applied to acting work on productions for public presentation. May be repeated up to 18 credits. Prerequisite: admission to the theatre major.
Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description. Fulfill assigned job, as specified in job description and
through specific supervisor directive, with a positive and professional attitude.
Follow written and verbal instructions accurately.
Accurately transfer information
from one team member to another.
Demonstrate an ability to meet deadlines.
Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description. Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.
TH 403. Management
Application (3). Skills learned in the classroom are applied to stage management work on productions for public presentation. May be repeated up to 18 credits. Prerequisite: admission to the theatre major. Upon successful completion of this course, the student will be able to:
Articulate, orally and in writing, the duties associated with assigned job description.
Fulfiil assigned job, as specified in job description and through specific supervisor directive, with a positive and professional attitude.
Follow written and verbal instructions accurately.
Accurately transfer information from one team member to another.
Demonstrate an ability to meet deadlines.

Demonstrate the proper application of health and safety rules associated with your job description.
Competently use the tools, materials, equipment, and techniques associated with your job description.
Demonstrate knowledge of theatre protocol through participation in a theatrical production.
Demonstrate the ability to work as part of a team through participation in a theatrical production.
Find solutions to common problems encountered while working on a theatrical production.
Demonstrate an understanding of design unity.
Demonstrate an understanding of the dramatic text and methods of translating said text into a stage production.
TH 415. Musical Theatre History and Literature I (3). The history of musical theatre from the inception of this uniquely American art form through the innovations of Oklahoma! The contributions of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Prerequisite: TH 365. Upon successful completion of this course, the student will be able to:
Define the specific types, genres, influences, and socioeconomic connections with regard to the development of early musical theatre.
Demonstrate a clear connection between musical theatre and American history.
Identify and analyze trends in early musical theatre.

## TH 416. Musical Theatre

History and Literature II (3). The history of musical theatre from Oklahoma! to the inception of the rock musicals in the 1960s. The contributions
of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Prerequisite: TH 415. Upon successful completion of this course, the student will be able to:
Define the specific types, genres, influences, and socioeconomic connections with regard to the development of musical theatre from Oklahoma to the rock musical Demonstrate a clear connection between musical theatre and American history Identify and analyze trends in 20th century musical theatre

## TH 417. Musical Theatre

History and Literature III
(3). The history of musical theatre from the rock musicals of the 1960s to the present. The contributions of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Upon successful completion of this course, the student will be able to:
Define the specific types, genres, influences, and socioeconomic connections with regard to the development of musical theatre from the rock musical to present.
Demonstrate a clear connection between musical theatre and American history.
Identify and analyze trends in 20th to 21st century musical theatre.
Develop a musical based on a play, movie, or book.
TH 420. Drama in Schools 1
(Put on reserve by
department 9/16/15) (3).
Practicum experience in planning, creating, teaching and assessing drama lessons for diverse populations. Put on
reserve by department 9/16/15, will go inactive 9/16/18. Prerequisites: TH 144 and TH 166 , and current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Become familiar with the Washington State EALRs for theatre arts.
Apply the EALR's in preparation and teaching of lesson plans to specific target grades.
Apply the EALR's in preparation and teaching of lesson plans to specific target populations.
Apply the EALRs in preparation and production of plays with young people. Devise and put into use ways of assessing EALRs in lesson and in drama production. Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 421. Drama in Schools 2
(Put on reserve by department 9/16/15) (3).
Practicum in play production, curriculum development, traditions, and trends in the application of drama education in the K-12 classroom. Put on reserve by department $9 / 16 / 15$, will go inactive 9/16/18. Prerequisite: TH 420.
Upon successful completion of this course, the student will be able to:
Identify the Washington State
EALR's for theatre arts
Apply the EALR's in
preparation of curriculum and program plans for specific grades
Apply the EALR's in preparation of curriculum and program plans for specific target populations Apply the EALRs in creating production plans and season plans for specific schools Devise and put into use ways of assessing EALRs in lesson and in drama production Carry out arts education research and use their findings
in a persuasive paper about the value of theatre education Critically comment on the strengths and weakness of their own work as well as the work of their peers
TH 423. Theatre Pedagogy
(3). A study and practice of the curriculum, teaching methods, and materials pertinent to teaching drama/theatre in the schools. Students will apply theory, research, and practice to the planning and implementation of instruction. Course will be offered every year (Summer). Prerequisite: admission to the Theatre
Education BFA, or permission of instructor.
Upon successful completion of this course, the student will be able to:
Analyze and experience the instructor's role in educational theatre and theatre's role in the schools
Articulate a personal
philosophy of educational theatre
Simulate, in a classroom
format, the teaching process of theatre for students
Analyze and use resources and materials available for school theatre programs and teachers Identify how theatre relates to other disciplines, art forms, and the needs of special needs students
Articulate theatre's relevance to children and young adults from diverse backgrounds Develop and implement ageappropriate learning experiences to meet specific learning goals
Design and apply lesson plans, unit plans, curricula, and assessment strategies for teaching theatre according to state standards

## TH 429. Directing II (3).

Script study emphasizing the specific artistic and logistical preparation involved in directing a play. Culminates in directing selected scenes. Prerequisite: TH 329.
TH 430. Script Writers Workshop (Put on reserve 9/16/2014) (4). Fundamentals
and practice in writing fulllength dramatic scripts from concept to working draft, in a variety of areas such as: musical theatre libretto, radio plays, reader's theatre, and stage plays from films. Put on reserve 9/16/2014. Last taught in 2009. Will go inactive $8 / 24 / 2017$. Prerequisites: TH 107 and TH 166, or admission to either the English writing or film and video studies major. Upon successful completion of this course, the student will be able to:
Identify and analyze a script's structure, content and character from established screenplays and plays as well as scripts written by their classmates. Accomplish outlining and drafting an original play or screenplay.
Identify dramaturgical techniques for effective plot construction and scriptwriting; raising stakes, communicating exposition, telling a story through action, creating effective characters, writing dialogue.
Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 433. Advanced Stage Combat (3). The study and practice of advanced skills, techniques, and safety factors used in staging and performing armed combat for the stage and media. Focus is on historical weaponry such as a single sword, rapier, and dagger, broadsword, and small sword. May be repeated for credit. Prerequisite: TH 333. Upon successful completion of this course, the student will be able to:
Identify and implement a vocabulary for advanced weapon techniques. Demonstrate weapon safety techniques and their application to stage combat. Perform accurately and automatically advanced techniques for each weapon and apply them in performance.

Develop physicalized acting skills.

## TH 435. Advanced

Movement for the Actor (3).
Advanced study in movement disciplines such as; Alexander,
Fekdenkrais, Suzuki, or Rasaboxes. Repeatable if course content changes. May be repeated up to 6 credits. Prerequisite: TH 335.
Upon successful completion of this course, the student will be able to:
Identify and implement a
vocabulary used for a
Movement Method.
Demonstrate correct techniques used for each exercise learned.
Memorize \& perform automatically each exercise learned.
Develop confidence in the movement potential of the actors' body.
Develop physicalized acting skills.
Develop awareness of personal physical strengths \& weaknesses.
TH 440. Advance Design Problems (3).
Conceptualization, design, and application of advanced design techniques and theories through paper project or executed on mainstage productions in one of four areas: scenery, lighting, sound, or costumes. May be repeated for credit.
Upon successful completion of this course, the student will be able to:
Discuss the conceptualization, design, and application of advanced design elements for a mainstage theatrical production.
Demonstrate an effective use
of a wide variety of visual and aural tools to communicate their designs.
Acquire design-related research skills.
TH 443. Singing for Actors
III (Put on reserve by
department 9/16/15) (1).
Advanced study of the mechanics of singing as applied to presentation of theatrical show music. May be
repeated up to 9 credits. Put on reserve by department $9 / 16 / 15$, will go inactive 9/16/18. Prerequisite: 3 credits of TH 343.

Upon successful completion of this course, the student will be able to:
Identify key and time signatures analyze and interpret lyrics and music Identify and choose music according to appropriate vocal range
Demonstrate singing technique designed for musical theatre performance in the presentational style Prepare to audition at the collegiate level Develop and demonstrate advanced vocal and performance techniques designed for all musical theatre venues, at a professionally competent level
TH 444. Acting Styles (4).
Performance skills applied to heightened texts and stylized comedy including Shakespeare, Wilde, Coward, and other major playwrights. May be repeated up to 8 credits if content differs. Prerequisite: TH 344.
Upon successful completion of this course, the student will be able to:
Explain through written description his/her analysis of blank verse and how it works Demonstrate the techniques for speaking blank verse aloud Describe script analysis, scansion, vocal support, breathing correctly, and antithesis, and demonstrate how each works in performance
Differentiate between reading Shakespeare for pleasure and getting on your feet and actually performing it Practice the technique applications to the language through many exercises Identify skills in performance Perform monologues and scenes from classical text
TH 445. Audition Techniques for the Stage (3). Exploration and practice of advanced
techniques and materials required for professional stage auditions. Prerequisite: TH 345.

Upon successful completion of this course, the student will be able to:
Develop skill and judgment about selecting stage audition materials
Develop an appropriate stage audition outfit
Develop two contrasting stage monologues suitable for stage auditions
Demonstrate professional level cold reading skills for stage auditions by reading fluently while integrating acting principles including connecting with partners real and imaginary, demonstrating physical flexibility and vocal articulation and demonstrating choice and full believable expression of appropriate character needs, tactics and point of view
TH 446. Audition Techniques
for the Camera (Put on Reserve 9/16/16.) (3). Exploration and practice of advanced techniques for professional camera auditions.
Emphasis on auditions for commercials and preparing cold readings for on-camera auditions. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive $8 / 24 / 19$.) Prerequisite: TH 445. Upon successful completion of this course, the student will be able to:
Demonstrate professional standards in a basic camera audition: slate, interview techniques and cold readings Demonstrate professional level cold reading skills for camera auditions reading fluently, using proper and natural articulation, while integrating acting principles including connecting with partners real and imaginary, demonstrating physical flexibility and vocal articulation and demonstrating specific choice-making and full believable expression of appropriate character needs, tactics and point of view

Practice and demonstrate professional handling of products for commercial auditions
Practice and refine persona for the camera, and for commercials such as "pitchman," "spokesperson," "expert," and will prepare for a variety of audition situations and materials

## TH 452. History of Fashion

(4). Historical changes in fashion and costume design from Egyptian period through eastern civilization to present. Social, political, and religious influences on fashions. FCSA 452 and TH 452 are crosslisted courses; students may not receive credit for both.
TH 456. Advanced Concepts in Sound for Film and Stage
(4). Creation of sound content for film and stage via software tools. FILM 456 and TH 456 are cross-listed courses; students may not receive credit for both. Course will be offered every year (Spring).
Prerequisite: TH 256 or permission of instructor. Upon successful completion of this course, the student will be able to:
Apply acquired skills to create a basic underscore for film and stage in a variety of formats. Apply acquired skills to record original effects as well as locate and evaluate royalty-free basic Foley sound effects. Apply acquired skills to eliminate extraneous sounds from an audio recording. Apply acquired audio editing skills in the creation of sound collage work.
Apply acquired skills using digital audio workstation software to manipulate and create audio content.
TH 460. Production Management (4). This course explores production management theory and practice, covering production estimating and budgeting, scheduling, and working with entertainment union contracts. Students will develop organization and
communication skills specific to the duties of the production manager. Prerequisites: TH 166 and TH 360.
Upon successful completion of this course, the student will be able to:
Analyze and plan a schedule for a production and a season. Develop cost estimates and budgets for a production and season.
Interpret performing arts union contracts and apply constraints to schedule and cost estimates.
TH 461. Costume Design (4).
Basic principles of design related to theatrical costumes. The role of the costume designer in planning and developing a sketch from the initial reading of the script through production, research, production meetings, and rendering technique.
Prerequisites: either TH 361, both FCSA 388 and TH 366, or admission to the apparel design minor.
Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the theory and skill in the practice of costume design, using the elements of design in creating costumes for both contemporary and period plays. Demonstrate skills in the psychological use of the design principles in creating impressions for the audience. Demonstrate advancement in the role of the costume designer from development of the design through production. Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 464. Wig Creation,
Styling, and Maintenance (3).
The study and practice of creating, styling, and maintaining wigs for stage. Upon successful completion of this course, the student will be able to:
Identify and demonstrate the use of wig making and styling products

Demonstrate concern for safety procedures of self and others Investigate and price existing products to use in future productions produced by the students' school for their theses projects

## TH 465. Costume and

Fashion Drawing (3).
Sketching design ideas for theatrical costumes and street clothing in three-dimensional form with textural effects and color to present a realistic appearance on paper.
TH 467. Scene Design (4).
Study, research, practice, and applied use of scenic design techniques and theory. Prerequisites: TH 266 and TH 340 and TH 366.
Upon successful completion of this course, the student will be able to:
Effectively communicate their design concepts in verbal, written and visual formats. Develop practical scenic design skills which could be realized for public performance. Critically comment on the strengths and weakness of their work as well as the work of their peers.
TH 468. Lighting Design (4).
Basic principles of design related to lighting design for the theatre. This class examines the role of the lighting designer from initial reading of the script through production, research, production meetings, and creation of the light plot. Prerequisite: TH 366 and TH 368.

Upon successful completion of this course, the student will be able to:
Analyze a theatrical script in order to create a design concept
Construct an abstract and specific visual vocabulary Perform and utilize the steps in the lighting design process Develop the "Design eye" and visually express design ideas Learn elementary video editing skills to create moving images
and visual enhancement for projection
TH 474. Acting for Film and
Television (4). Exploration and practice of advanced techniques in the acting of scenes for film and television.
Topics may include; soap opera, feature film, and television sitcom techniques. May be repeated for credit if content changes. Prerequisite: TH 374.
Upon successful completion of this course, the student will be able to:
Illustrate and implement accepted industry techniques for acting in film and television scenes.
Create believable characters
for TV and film.
Demonstrate an understanding of the basic techniques of television production, including camera operation, basic camera direction, lighting, videotaping and sound recording.
TH 481. Kennedy-Center
Festival (1-2). Participation in the annual Kennedy Center American College Theatre Festival and/or the Northwest Drama Conference. May be repeated for credit. Grade will either be S or U . Prerequisite: admission to the theatre arts major or minor.
TH 487. Theatre Pedagogy
(4). Student will be given individualized instruction in teaching practices and will participate in journal writing, critiquing, counseling, coaching, advising, leading discussion, and grading. TH 487 and TH 587 are equivalent courses; students may not receive credit for both. May be repeated up to 8 credits. Upon successful completion of this course, the student will be able to:
Develop a process for structuring and preparing to teach a given course, including syllabus \& calendar development.
Acquire and practice classroom management skills.

Explore, acquire and apply a variety of reaching methodologies. Implement specific suggestions made by mentor in teaching throughout the quarter. Practice problem-solving skills through application of content explored in seminars. Practice self-assessment and reflective analysis regarding teaching skills.

## TH 488. Introduction to

Dramaturgy (3). An introduction to research applied to production including author, world of the play, and the socio-political influences surrounding the text and its time.
Upon successful completion of this course, the student will be able to:
Identify research material for application to theatre production including author and the socio-political influences surrounding the text and its time.
Identify and evaluate current and past practices in the dramaturgical field. Create and present a dramaturgical portfolio and for a selected play suitable to the production.
TH 489. Career \& Portfolio
Preparation (3). Techniques and practice in preparation of professional portfolio, resumes, and letters of application for employment in the entertainment industry. Prerequisites: admission to the theatre arts major and junior standing or above.
Upon successful completion of this course, the student will be able to:
Demonstrate skills and techniques in resume writing and portfolio building. Demonstrate skills in analyzing job opportunities and creating application packages appropriate for those positions. Critically comment on the strengths and weakness of their own work as well as the work of their peers.
TH 490. Cooperative Education (1-12). An
individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U .
TH 491. Workshop (1-6).
TH 491. Musical Theatre Directing (3). Study of the director's preparation and rehearsal practices for coordinating and mounting a full musical production. Open to sophomore level and higher students. Prerequisites:
Sophomore or higher standing,
AND instructors permission.
Upon successful completion of this course, the student will be able to:
Demonstrate competence in the areas of organization, focus, picturization, and stage direction of musically based theatre.
Demonstrate competence in protective vocal performance techniques using Musical Theatre singing technique. Demonstrate competence in the area of critical analysis and its application to contemporary musical theatre stylization and staging.
Demonstrate a working knowledge of terminology in the areas music, staging, and acting.
Demonstrate their knowledge of staging techniques applied to a variety of venues. Demonstrate a working knowledge of various workshop techniques.

## TH 492. Practicum in

 Devising and Touring Theatre (3-12). Advanced study in ensemble devised theatre, techniques and practice in the production thereof, and practicum in touring such pieces to fringe festivals, and other alternate and/or educational venues. Permission of instructor. May be repeated up to 12 credits. Prerequisite:current WSP/FBI fingerprint clearance.
Upon successful completion of this course, the student will be able to:
Integrate curriculum based skills set in a theatrical production.
Acquire and demonstrate practical skills for devising theatrical works with and ensemble, and/or creating a solo performance piece using a number of different techniques and approaches including viewpoints, rasaboxes, and other movement based disciplines.
Demonstrate critical, analytical, and artistic kills as applied to a theatrical production from conception to culmination.
Integrate creative writing,
historical documents, literature, and/or other works into works for the stage.
Critically comment on the strengths and weakness of their own work as well as the work of their peers.
Adhere to accepted professional theatrical protocol regarding preparation and execution of responsibilities. Learn and demonstrate professional conduct and responsibilities in more than one area of production.
TH 493. Theatre Laboratory
(1). Practical experience in all aspects of theatre production to better prepare for career opportunities. May be repeated up to 3 credits.
TH 494. International
Theatre Experience (1-5).
Travel and participation (as performer or audience) at an international theatrical experience in a variety of topics such as Winnipeg Fringe, Shakespeare in the UK, Japan's Theatre Traditions, Theatre for Social Justice, Prague Quadrennial of Design, or The Theatre of Carnival. Students will apply field research to written analysis and/or presentation during the term of study. OISP fee applies. May be repeated for up
to 25 credits as topic changes. Grade will be S or U .
Upon successful completion of this course, the student will be able to:
Identify processes of travel itinerary implementation Critically analyze linkage between academic courses completed prior to the field experience and how the experiential learning will affect the students aesthetic perceptive
Defend personal reaction to aesthetic choices made by the organization producing theatre viewed during the field experience
Summarize significant cultural practices and influences experienced in the travel destination country
TH 495. Senior Research
Project (3). Senior students shall present a research paper in a major area of interest. May be repeated for credit.
Prerequisite: admission to the theatre arts major.
Upon successful completion of this course, the student will be able to:
Select a focused researchable
paper topic, making sure there is room for original thought in your selection
Develop a working, researchable, defensible thesis statement
Find your way around the resource materials in an academic library
Navigate the Internet with confidence
Find 5 sources on your selected topic
Conduct research using a variety of media
Create a MLA in-text citation
Cite sources in a bibliography [Works Cited]
Develop an organized paper
using carefully selected details Demonstrate good writing skills such as clear articulation of ideas/content, organization, voice, word choice, sentence fluency, and grammatical/writing conventions
Meet assigned deadlines

Critically comment on the strengths and weaknesses of their own work, as well as that of their peers
TH 496. Individual Study (16).

TH 497. Honors (1-12).
Prerequisite: admission to department honors program.
TH 498. Special Topics (1-6).
TH 499. Seminar (1-5).
TH 499. Seminar (1-5). May
be repeated if subject is
different.
UNIV 101. Transition to
CWU (1). UNIV 101 is
designed to foster a successful transition to CWU. This course
will promote a sense of belonging and discovery, stimulate engagement in curricular and co-curricular activities, and connect students to campus resources. Course will be offered every year (Fall, Winter, Spring). Upon successful completion of this course, the student will be able to:
Identify common first year transitional issues and develop strategies to contribute to college success. Establish connections with faculty, staff, and peers in the CWU community.
Begin the process of career and major exploration. Identify campus resources available for different types of support.
Demonstrate knowledge and use of academic tools at CWU. Describe and demonstrate strategies that promote wellness as it relates to their academic and personal success.
UNIV 102. Strategies for College Success (2). Course will teach essential study skills for succeeding in and graduating from college.
Students will learn how to develop habits that lead to academic success.
Upon successful completion of this course, the student will be able to:
Demonstrate effective time management skills.
Demonstrate effective note taking skills.

Identify different learning styles and determine which one is most appropriate for themselves.
Demonstrate effective goal setting skills.
Demonstrate preliminary research skills. Demonstrate effective study strategies.
UNIV 103. Career
Exploration (2). Designed to assist students in researching and assessing their career goals through classroom coursework and career-related interest and personality inventories.
Upon successful completion of this course, the student will be able to:
Demonstrate effective job application skills. Identify and evaluate career interest areas.
Identify and evaluate different
occupational resources.
Demonstrate effective career information gathering skills and how to assess their strengths and weaknesses to make quality career decisions.
UNIV 109. Introduction to
Civic Engagement (2). The
student will use civic engagement to identify and explore career interests and meet community needs. May be repeated for credit. Upon successful completion of this course, the student will be able to:
Identify volunteer service opportunities in a community. Participate in a volunteer service.
Identify the relationships between volunteer service and academic knowledge.
Identify and use leadership skills in conducting volunteer service.
Identify the relationships
between volunteer service and career preparation.
Analyze his/her progress in performing volunteer service.
UNIV 201. Tutoring
Strategies (1). Principles of individualized instruction for student paraprofessional tutors. Structuring tutorials,
fundamental learning
strategies, assessment strategies, communication skills, and integration of content mastery/learning skills. Grade will be S or U .
Prerequisite: at least 40 college level credits.
Upon successful completion of this course, the student will be able to:
Model independent and active learning for tutees.
Recognize the roles, goals, and expectations of tutoring. Comprehend the structure of the tutoring cycle.
Utilize tutoring strategies and techniques to assist tutees. Facilitate student learning for diverse student populations through review of learning styles and study skills. Improve communication, interpersonal skills, and listening skills.
UNIV 202. Online Tutoring
Strategies (1). Principles of individualized online instruction for student paraprofessional tutors. Structuring online tutorials, fundamental learning strategies, assessment strategies, communication skills, and integration of content mastery/learning skills. Grade will be S or U .
Prerequisite: grade of B or higher in subject the student would like to tutor. At least 80 college-level credits, or by instructor permission. Upon successful completion of this course, the student will be able to:
Achieve technical proficiency in the online environment Recognize the roles, goals, and expectations of online tutoring Comprehend the structure of the online tutoring cycle Utilize online tutoring strategies and techniques to assist tutees
Facilitate student learning for diverse student populations through review of learning styles and study skills
UNIV 205. Introduction to Interdisciplinary Research
(2). An introduction to the research methods involved in
tackling interdisciplinary topics that combine skills and knowledge from the natural and social sciences. Includes data collection and analysis for a group project. Grade will be S or U. Permission by instructor. Course will be offered every year (Spring). Upon successful completion of this course, the student will be able to:
Describe research methods used to address interdisciplinary questions. Recognize and explain ethical behaviors in scientific research. Utilize the primary literature. Describe their own research project and the methods they will use.
UNIV 250. Reading and Writing Enrichment (Put on reserve 9/16/17) (3). This class offers sophomores and juniors augmented instruction in reading and writing, building on concepts and skills learned in English 101 and 102. (Put on reserve $9 / 16 / 17$. Will go inactive $8 / 24 / 2020$.) Prerequisite: ENG 101 and ENG 102 and sophomore or junior standing, and a GPA of 2.5 or less.

Upon successful completion of this course, the student will be able to:
Increase their reading
efficiency and comprehension of college-level texts
Improve their writing skills using a variety of genres of writing
Apply reading and writing strategies across the curriculum for the purposes of research and documentation Use informal writing to explore and reflect on ideas using freewrite, reflections and situational writing Increase their critical thinking and interpretation skills UNIV 295. Introduction to Undergraduate Research (2).
This class will prepare students to conduct faculty mentored research and creative expression projects. By permission.

Upon successful completion of this course, the student will be able to:
Define undergraduate research and creative expression scholarship across multiple disciplines.
Define personal goals for research at Central Washington
University and beyond.
Identify a research interest
area.
Describe current faculty research at Central Washington University.
Define ethical considerations of undergraduate research. Define the component elements of scholarly and peer reviewed papers.
Explain the steps to creating a research proposal for a fellowship, presentation or journal submission.
Describe the components of formal research presentations.
UNIV 297. Enrichment
Course (1). Enrichment course on various topics for freshmen and sophomores to broaden their interest areas. May be repeated for credit.
UNIV 298. Special Topics (16). May be repeated if subject is different.
UNIV 299. Seminar (1-5). May be repeated if subject is different.
UNIV 301. Career Management (2). Identify work suited to interests, personality, goals, and values. Maximize ability to obtain work in chosen field, manage career moves to maintain interest and growth through economic changes and life stages while minimizing economic dislocation. Upon successful completion of this course, the student will be able to:
Explore strengths, personality traits, interests, and values to aid in identifying positive career choices, understand individual strengths, weaknesses and tendencies and how they may affect student performance and satisfaction. Learn how to research jobs to investigate typical functions,
requirements, and expectations so that he/she can better select, prepare and market strengths. Learn how to build and maintain a professional network that brings research to life and makes contacts that will support and enhance career transitions. Learn job finding skills including targeting markets and networking, prepare marketing materials and explore interviewing strategies to maximize career opportunities.
UNIV 304. International Sustainable Development (5). Introduction to the principles by integrating academic instruction with experiential learning through volunteer excursions. Explore the principles; critically examine the contextual impacts; and utilize opportunities for personal and academic growth through cultural immersion and service. May be repeated up to 20 credits. Permission of department. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: acceptance into destination-based partner program, GIVE (Growth International Volunteer Excursions).
Upon successful completion of this course, the student will be able to:
Understand the basic terms, concepts and analytical frameworks of sustainability and sustainable development; Critically examine the policies and practices of sustainable development using analytical frameworks that explore its cultural, political, environmental, and economic dimensions;
Analyze and evaluate the challenges and opportunities associated with sustainable development and sustainable development projects in the student's host community; Discuss how their personal experiences associated with international travel and their volunteer work will affect their
personal lives and future
careers.
UNIV 308. Civic Engagement Theory and Application (4).
Student combines civic engagement theory and diversity sensitivity with realworld situations and major content to design and conduct a community project.
Upon successful completion of this course, the student will be able to:
Use various modes of inquiry to identify community issues, needs, strengths, problems and resources.
Compare and contrast how citizen groups have effected change in their communities. Identify organizational challenges and determine how to apply one's professional skills for the betterment of society.
Demonstrate problem-solving skills by designing a research process and analyzing data in order to reach conclusions and recommendations.
Demonstrate work-place ethics in conducting their project. Compare and contrast the differences in ethnic and cultural perspectives, class, race, gender, sexual orientation and ability and critique their project treatment of diversity issues.
UNIV 309. Civic Engagement
(2). Student will use program of study content knowledge to improve a community situation. May be repeated up to 12 credits. Grade will either be S or U .
Upon successful completion of this course, the student will be able to:
Recognize service learning as a means of applying academic knowledge to a community need.
Research community needs related to their academic content area.
Develop an individual academic service learning goal based upon research of community needs.

Develop a plan of action for accomplishing an individual academic service learning goal. Identify, integrate and apply specific skills, knowledge and technology in conducting his/her independent learning project.
Identify and use professional leadership characteristics In conducting his/her Independent learning project.
Recognize relationships between academic service learning and contributions to a profession.
Identify relationships between academic service learning and career preparation.
Analyze his/her progress in implementing an academic service learning project.
UNIV 395. University
Research (1-5). Research and practicum experiences in the Office of Undergraduate Research. By permission only. May be repeated up to 10 credits. Grade will be S or U .
Upon successful completion of this course, the student will be able to:
Choose an appropriate research question to pursue within university research activities. Outline and carry out a research plan that includes data collection, procedures for analysis, and anticipated final products.
Synthesize and share research results in an appropriate venue.
UNIV 396. Individual Study
(1-6). May be repeated if subject is different.
UNIV 397. Honors (1-12).
Prerequisite: admission to department honors program.
UNIV 398. Special Topics (1-
6). May be repeated if subject is different.
UNIV 399. Seminar (1-5).
May be repeated if subject is different.
UNIV 497. Enrichment
Course (1). An enrichment course on varying topics for upper-division students to explore more deeply issues of academic interest. May be repeated for credit. Grade will either be S or U .

UNIV 498. Special Topics (1-
6). May be repeated if subject is different.
UNIV 499. Seminar . May be repeated if subject is different.
UNIV 597. Enrichment
Course (1). An enrichment course on varying topics for graduate students to explore more deeply issues in their areas of academic focus. May be repeated for credit. Grade will either be S or U .
WGSS 201. Introduction to Women's, Gender, and Sexuality Studies (5). An interdisciplinary exploration how gender and sexuality impact people's lives both historically and in contemporary society. Gender related issues are examined through social, political, economic, and cultural issues and processes influencing societies, communities, and individuals. SB-Perspectives on Cultures and Experiences of U.S. (W). Meets the General Education writing requirement. Formerly WGS 201; students may not receive credit for both. Course will be offered every year (Fall, Winter, Spring, Summer).
Upon successful completion of this course, the student will be able to:
Discuss requirements of informed citizenship based on analyzes of gender and sexuality and the ways in which inequality and equality are institutionalized in structures such as education, health, religion, the media, government, , parenthood, work, and economics Explain based on analyzes of theory and research related to the intersection of race, class, gender and sexuality, how culturally diverse experiences enhance a community Apply this knowledge to create greater self-awareness, personal autonomy, and selfdetermination in order to challenge institutions and practices that result in social injustice.

Analyze the interplay of gender, race/ethnicity, class, and sexual orientation oppression across local, national, regional and global cultures
Describe how understandings and practices related gender and sexuality have affected communities, citizenship and politics
Demonstrate analytical and critical thinking skills in reading, listening, observing, writing, and speaking about how gender and sexuality shapes people's lives Demonstrate familiarity with the range of research tools available in women's, gender, and sexuality studies, including library resources, the web, fieldwork, and experiential learning, and competence in their use.
WGSS 250. Introduction to Queer Studies (5). An interdisciplinary introduction to queer studies, investigating the historical and contemporary reality of those who identify as gay, lesbian, bisexual, transgender, and/or queer. SB-Perspectives on Cultures and Experiences of U.S. (W). Formerly WGS 250; students may not recieve credit for both. Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to:
Explain and apply social constructionist and other queer/queer of color, poststructural, and anthropological theories and ideas about gender, sex, and sexuality. Using social science, natural science and humanist lenses, analyze gender and sexuality and how they may or may not intersect, both historically and contemporaneously/contempor arily.
Articulate the processes involved in the public and (supposed) private performance of diverse identities, desires and pleasures, the "erotic", and sex acts, and how these
performances shape attitudes and values affecting the respect and equality of others.
WGSS 298. Special Topics (1-6). May be repeated if subject is different.
WGSS 299. Seminar (1-5).
May be repeated if subject is different.
WGSS 326. Intersections of Gender, Race, Class, and Sexualities (5). This course centers on the intersectionality framework. Its primary focus is on the ways gender is embedded in and intersects with race/ethnicity, class, sexuality, age, ability/disability, and other patterns of identities, groups, and institutions. Course will be offered on even numbered years (Spring). SOC 365 and WGSS 326 are equivalent courses; a student may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate understanding of the complex ways categories of difference and inequality interact simultaneously to maintain systems of inequality and oppression; Identify and analyze the ways in which hierarchal identity categories are culturally produced, socially constructed, and strictly maintained. Examine the historical trajectory of intersectionality as a theoretical concept and research paradigm; Develop critical thinking and writing skills in analyzing categories of difference and applying the intersectional approach to their own lives.

## WGSS 340. Gender and

 Sexuality in a Global Context(5). An interdisciplinary exploration of critical perspectives on how peoples and societies around the world understand and experience gender and sexuality. The perspectives in this course range from medical to political, historical, anthropological, sociological, and artistic.
Course will be offered on odd
numbered years (Spring). Upon successful completion of this course, the student will be able to:
Analyze the workings of power and gender in different contexts and within international feminist discourse Demonstrate an understanding of the diverse feminist theories and practices around the globe Analyze how gender and sexuality intersect with race, class, and religion in different parts of the world Analyze how critical perspectives on gender are grounded in specific histories and experiences and give rise to activism
Demonstrate speaking, listening and writing skills that will allow students to communicate their ideas, critically evaluate those ideas, and learn from the ideas of others.
WGSS 351. Feminist Theory
(5). This course is designed to introduce students to feminist theory. Our study begins with the historical foundations of feminist theory, but also examines how transnational, indigenous, and queer feminisms have challenged and complicated those discourses. Course will be offered on even numbered years (Winter). WGSS 351 and PHIL 325 are equivalent courses; students may not receive credit for both.
Upon successful completion of this course, the student will be able to:
Analyze and apply the major concepts and critiques in feminist theory; Analyze how poststructuralist, multicultural, transnational, postmodern, Marxist, and queer feminisms pluralize and enrich the notion of feminist theory;
Critically evaluate theoretical assumptions, identifying both their strengths and limitations; Analyze current social and political issues by applying these theoretical approaches; and

Critically evaluate their own ideas and assumptions in writing and discussion.
WGSS 384. Language and
Gender (4). This course is designed to guide students to explore the active and rapidly expanding field of gender studies and language research dealing with how biological and cultural awareness of sexes are reflected in speech. WGSS 384 and ANTH 384 are crosslisted courses; students may not receive credit for both. Formerly WGS 384; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of how language participates in gender practice and how language encodes attitudes about gender
Examine issues of method and analytic practice in language and gender research Define concepts and tools for understanding of the patterns of human communication based on gender differences toward explaining dominance of a certain gender via language
Describe gender inequities and sexually- oriented expressions in language and with the adjustments being made to rectify them
Identify how different genders pursue conversational strategies to establish status and authority and how different ethnic backgrounds can complicate communication between men and women Locate sexual inequalities in language and the role of language in nurturing and identifying gender differences in society

## WGSS 396. Individual Study

(1-6). May be repeated if subject is different.
WGSS 397. Honors (1-12).
Prerequisite: admission to department honors program. WGSS 398. Special Topics (1-6). Formerly WGS 398; students may not receive credit for both.

WGSS 398. Special Topics
(1-6). May be repeated if subject is different.
WGSS 399. Seminar (1-5).
May be repeated if subject is different.
WGSS 488. Capstone Project
(2). This course serves as the culminating experience for the women's and gender studies minor. Students will work with a faculty member on a service learning project, a research paper, or a creative project. Formerly WGS 488; students may not receive credit for both. Upon successful completion of this course, the student will be able to:
Synthesize the various approaches and ideas they have encountered in their previous coursework.
Display an understanding of those various approaches and ideas.
Apply what they have learned to their academic, professional and personal plans for the future.
WGSS 489. Women's, Gender, and Sexuality Studies Senior Capstone (3).
The Capstone course provides WGSS majors the opportunity to synthesize and deepen understandings of genderrelated issues through reading, writing and discussion. Students participate in a seminar, complete a research project, internship and/or service learning experience. Course will be offered every year (Spring). Prerequisites: WGSS 351 and WGSS 326 or WGSS 340.
Upon successful completion of this course, the student will be able to:
Explain the historical, social and political contexts of women's movements and feminist thought
Identify and evaluate the social construction of gender and the ways gender intersects with other forms of identity Identify and evaluate culturally and historically specific ideas of gender, sex and sexuality

Explain feminist theories and apply them across varied disciplines
Synthesize the knowledge and skill gained in WGSS major
courses by completion of a 10 -20-page paper based on a research based or applied project (internship/service learning), or creative work Communicate effectively, both orally and in writing, the results of their research based project, applied project or creative work
WGSS 490. Cooperative
Education (1-12). An individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U . Formerly WGS 490; students may not receive credit for both.
WGSS 491. Workshop (1-6).
Formerly WGS 491; students
may not receive credit for both.
WGSS 496. Individual Study (1-6).
WGSS 497. Honors (1-12).
Prerequisite: admission to department honors program. WGSS 498. Special Topics (1-6).
WGSS 499. Seminar (1-5).
WL 200. World Cultures and
Globalization (4). This course
will explore the interaction and interdependence of cultures and identities in a globalized world through examination of various forms of cultural production in a number of global contexts.
Upon successful completion of this course, the student will be able to:
Identify a number of important issues that affect cultures in today's globalized world (such as globalization, migration, transnational popular culture, exile and diaspora, multiculturalism, virtual communities, etc.).

Identify and explain the significance of salient cultural details that appear in the various cultural products examined in class. Interpret and analyze cultural texts (literature, film, digital and mass culture products, etc.) with attention to the formal characteristics of different media studied in the class. Demonstrate critical thinking skills in regards to comparing and contrasting different cultural texts (i.e. comparative content analysis).
Apply what they learn about cultural difference and diversity to describe how their own lives are shaped by globalization.
WL 298. Special Topics (1-6).
WL 299. Seminar (1-5). May
be repeated if subject is different.
WL 396. Individual Study (1-
6). May be repeated if subject is different.
WL 397. Honors (1-12).
Prerequisite: admission to department honors program.
WL 398. Special Topics (1-6). WL 399. Seminar (1-5). May be repeated if subject is different.

## WL 401. Introduction to

Romance Linguistics (3).
Analysis of the phonology, morphology, and syntax of the romance languages. Credits to be counted toward either French or Spanish major or minor. Prerequisite: two years of a romance language.
WL 481. Methods and Materials for Language
Teaching (4). Emphasizes the practical concerns of secondand foreign-language instruction. Explores as a group the theory underlying approaches incorporated into personalized teaching styles. Prerequisites: at least two 300level courses or equivalent in a foreign language.
Upon successful completion of this course, the student will be able to:
Demonstrate different approaches, techniques and innovative methods in foreign
language instruction related to models of linguistics and psychology.
Read, analyze and discuss readings and classroom activities related to the field. Analyze and apply the theoretical issues and terminology in the field. Employ the major professional journal and Internet resources in the field.
Develop lessons and original and interactive teaching material.
Evaluate videotaped peer teaching.
WL 482. Second- and Foreign-language Acquisition
(On reserve as of 9/16/15) (4).
This course explores second and foreign language acquisition/learning from an applied linguistics perspective. Formerly FNLA 482, students may not receive credit for both. The focus of this course will be on the learner. Put on reserve as of $9 / 16 / 15$. Will go inactive 8/24/18. Prerequisite: WL 481. Upon successful completion of this course, the student will be able to:
Read, analyze and discuss critically major readings in the field of second language acquisition (SLA)
Analyze and apply the theoretical issues and terminology in the field Consult major library and Internet sources related to the field of SLA
Conduct empirical research by collecting and analyzing original language data, or by doing a traditional research paper/poster on a major topic in the field and presenting results to the class
WL 483. Sociolinguistics (4). Concepts and methods of sociolinguistic analysis in first and second languages. Will examine differences among cultures in the relationship between language usage and inequality. ANTH 483 and WL 483 are cross-listed courses; students may not receive credit for both. Prerequisites: either

ANTH 180, ENG 180, ANTH 381, or WL 481.
Upon successful completion of this course, the student will be able to:
Read, analyze and discuss critically major readings in the field of sociolinguistics Analyze and apply the theoretical issues and terminology in the field Consult major library and Internet sources related to the field of sociolinguistics Conduct empirical research by collecting and analyzing original language data, or by doing a traditional research paper/poster on a major topic in the field and presenting results to the class
WL 490. Cooperative
Education (1-12). An
individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Department consent. May be repeated for credit. Grade will either be S or U.

WL 491. Workshop (1-6).
WL 496. Individual Study (16).

WL 497. Honors (1-12).
Prerequisite: admission to department honors program.
WL 498. Special Topics (1-6).
WL 499. Seminar (1-5). May be repeated if subject is different.
WLC 250. Language and
Power (5). This course surveys
political uses of language and consequences for society. It covers concepts in cultural politics, identity politics, and sociolinguistics. Students propose plans to use language to make societies more just and sustainable. WLC 250 and POSC 250 are cross-listed courses; a student may not receive credit for both. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to:
Recognize, define, and explain
key concepts in cultural politics, identity politics, and sociolinguistics Recognize and reflect on how key concepts in cultural politics, identity politics, and sociolinguistics inform their own experiences with language, power, and wellbeing in their personal, social, professional and economic lives Identify and describe relationships between the exercise of power and use of language in politics, public policy, education, the work place, media, and the arts Recognize, appraise, and compare beneficial and detrimental consequences to individuals, communities, and societies of different uses of language for specific purposes and in different places and historical periods Propose and outline plans to use language to improve political participation, systems of justice, community development, employment policies, public funding for the arts and media, K-12 education, second-language education, or language revitalization programs to make multicultural and multilingual communities and societies more healthy, just, and sustainable.

## WLC 311. Popular Cultures

 of the World (5). This online course examines popular culture as a reflection of ideologies and value systems in different societies and cultural contexts. Course will not have an established scheduling pattern.Upon successful completion of this course, the student will be able to:
Identify, describe and analyze major issues pertaining to the globalization of popular culture in different regions of the world today. Issues examined include: glocalization,
grobalization, diaspora, hybridity, authenticity, the Global South, virtual communities, among others. Demonstrate an understanding of multicultural models of gender, class, sexuality and ethnicity, as reflected in global popular cultural products. Demonstrate understanding of how these models impact social justice, diversity and inequality in different regions of the world within the social, economic and political conditions of globalization. Demonstrate an understanding of processes involved in the consumption of global popular cultural products from the perspective of global economic inequality (i.e. the Global South). Reflect on their own participation in the global economy and demonstrate understanding of concepts linked to responsible global stewardship.
Explore and analyze local-toglobal dynamics in production and consumption of popular culture products. Effectively address local and global impact of consumerism within globalization; its positive and negative effects, and identify strategies for how to address them on local and international level.
Demonstrate knowledge of and apply methods used in the field of Cultural Studies both analytically and creatively. Identify the value of Cultural Studies in addressing various aspects of the globalization (such as glocalization, hybridity, diaspora, cultural translation etc) of popular culture
Identify and recognize various cultural phenomena that contribute to social injustice in different cultural contexts. Demonstrate knowledge of multiple perspectives on social justice in different cultural contexts and how these perspectives are impacted by local-to-global dynamics.
WLC 341. Spells of Enchantment: Re-

## interpreting the Fairy Tale

(5). The course is an introduction to the study of German and French fairy tales in translation, concentrating on the analysis and comparison of the traditional written form with today's cinematographic and technological visual form. Course will be offered on odd numbered years (Spring). Upon successful completion of this course, the student will be able to:
Identify, evaluate, and explain the fundamental concepts and characteristics of the fairy tale genre: both traditional and literary.
Describe, analyze, and compare the ways in which linguistic, religious, philosophical, and historical circumstances are reflected in traditional French and German fairy tales.
Identify and evaluate the personal, historical, and cultural issues found in the genre as a whole in order to compare them with current issues and processes.
Describe and evaluate the ways in which the human experience can be seen through the analysis of both traditional and contemporary fairy tales. Identify one's own assumptions and presuppositions about the social and cultural impact of fairy tales, and demonstrate a basic understanding of fundamental concepts and characteristics within the fairy tale genre.
Demonstrate knowledge of scholarly and creative methods used within the fairy tale genre, by identifying and examining the myriad ways fairy tales figure into historical as well as contemporary contexts.

## WLC 427. Cross-Cultural Competence in a Globalized

World (5). An overview of key disciplinary approaches to cross-cultural competence in a globalized world and their application in a variety of contexts. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to:
Recognize and distinguish theoretical approaches to crosscultural competence from the perspectives of different disciplines.
Demonstrate how conceptual tools from different disciplines apply to specific challenges that arise in multicultural and globalized encounters. Compare and contrast theoretical approaches learned in the class in order to analyze different representations of global cross-cultural experiences. Synthesize methods learned in the class in order to generate context-appropriate solutions to specific cross-cultural challenges.
Evaluate cross-cultural situations in personal experience.

## YESS 101. YESS Social

 Science Perspectives and Research I (2). This first course in the sequence is designed to offer students an overview of how the social sciences explore the world and will outline opportunities the social sciences have to offer students. Permission by department. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to: Name and identify social science concepts and processes to investigate a social, cultural and/or political problem important to society. Identify quantitative and qualitative data to address social science questions. Critically read and summarize social science literature. Express social science concepts and processes to write a scientific proposal.Find and apply social science literature to justify a research proposal.
Communicate in writing and orally to a social science audience.

YESS 102. YESS Social Science Perspectives and
Research II (2). In this second course, students will apply skills learned to investigate the social world, where they will develop a research question and collect data for a supervised student project. Permission by department. Course will be offered every year (Winter). Prerequisite: YESS 101.
Upon successful completion of this course, the student will be able to:
Use social science concepts and processes to differentiate a scientific problem important to them.
Collect quantitative and qualitative data to address social science questions. Collaborate with a team to investigate a problem. Communicate in writing and orally to a scientific audience. YESS 103. YESS Social Science Perspectives and Research III (1). Within this final course, students will apply skills learned in previous courses to investigate their social world. Students will apply these skills to carrying out a research project or service learning project. Permission by department. Course will be offered every year (Spring). Prerequisites: YESS 101 and YESS 102. Upon successful completion of this course, the student will be able to:
Distinguish the objectives and results of research in different fields of social science. Comprehend different social science career options relative to personal interest, knowledge, and skills. Apply scientific concepts and processes to write a social science proposal. Find and use social science literature to justify a proposal. Communicate in writing and orally to a social science audience.


[^0]:    Music

[^1]:    *Students must see an advisor for permission to enroll in this course.

[^2]:    This specialization prepares graduates for professional pilot positions within the airline industry. Students must earn a minimum grade of B- in CWU's FAA approved ground school courses to receive an FAA course graduation certificate as required by FAR141.

    To be eligible for the FAA Restricted ATP certificate, students must complete the instrument/commercial pilot training with CWU in-house flight training and in the manner approved by the FAA under FAR Part 141 and the R-ATP LOA.

    Professional Pilot Core Requirements

    The Professional Pilot major prepares graduates for entry level careers and leadership roles in the aviation community. Students

[^3]:    The certificate in non-profit organization management is an interdisciplinary approach to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The courses provide practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

    Required Courses: Credits (13)

    - ACCT 301-Accounting Skills for Non-Business Majors Credits: (5)
    - COM 312 - Introduction to Non-Profit Leadership Credits: (4)
    - COM 427 - Grant Writing Credits: (4)

[^4]:    Engineering Technologies, Safety, and Construction Department
    College of Education and Professional Studies

[^5]:    Total Credits: 121

[^6]:    Total Credits: 67-68

[^7]:    Recreation, Tourism and Events Core

[^8]:    The Personal Financial Planning Certificate incorporates all course requirements necessary to qualify for CFP Boards Certified Financial Planner examination.

[^9]:    Students will gain knowledge about structural data and analytics in the IT industry that when combined with their ITAM specialization will prepare them for careers as information technology professionals with an emphasis in the ability to gather, organize, and analyze information data to make strategic

[^10]:    Library
    Ellensburg
    James E. Brooks Library, room 206

[^11]:    Admission Requirements for Mathematics Major and Minor Admission to any major in the mathematics department will be
    considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Transfer students with the

[^12]:    Social Service Required Courses Credits: 24

[^13]:    This major does not require a minor. Study abroad is recommended but not required for this major.

    The Japanese Large Plan Major program guides students through the process of learning Japanese, and in doing so, fosters an appreciation of Japanese culture and history. In a broad sense, our program endeavors to help our students develop expanded intellectual horizons, an understanding of themselves, and improved communication and thinking skills, all through the study of the Japanese language. With Japanese, students can find careers in the electronics and film industries, education, business, tourism, the military, the Foreign Service, and other areas. The US Government designates Japanese as a "critical" language. ROTC students may be eligible to receive scholarships or other benefits if they select this major.

