

1-1-2018

Central Washington University 2018-2019 Graduate Catalog

Central Washington University

Follow this and additional works at: <https://digitalcommons.cwu.edu/catalogs>

Recommended Citation

Central Washington University, "Central Washington University 2018-2019 Graduate Catalog" (2018).
Course Catalogs. 180.

<https://digitalcommons.cwu.edu/catalogs/180>

This Book is brought to you for free and open access by the University Archives and Special Collections at ScholarWorks@CWU. It has been accepted for inclusion in Course Catalogs by an authorized administrator of ScholarWorks@CWU. For more information, please contact scholarworks@cwu.edu.



Central
Washington
University



Long da

Equal day and night

Short da

Academic Year

GRADUATE CATALOG

2018 - 2019

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 top-notch 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 inclusive- CWU was recently the only Washington state university given the prestigious Higher Education Excellence in Diversity (HEED) award- along 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 inquiries 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/equal-opportunity. 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

Table of Contents

Welcome to Central Washington University.....	1
Catalog Guidelines.....	2
Information Directory.....	4
History, Mission, Vision and Core Values.....	9
Graduate Studies and Research.....	11
Master's Degree Guidelines.....	14
University Centers.....	18
Tuition and Fees.....	19
Academic and General Regulations/Guidelines.....	23
Academic Policies.....	27
College of Arts and Humanities.....	27
College of Business.....	28
College of Education and Professional Studies.....	29
College of the Sciences.....	30
Office of Continuing Education.....	31
Online Learning.....	34
Degrees Offered (Majors, Minors, Certificates).....	35
Accounting Department.....	36
Anthropology and Museum Studies Department.....	37
Art and Design Department.....	37
Aviation Department.....	39
Biological Sciences Department.....	39
Chemistry Department.....	41
Communication Department.....	47
Computer Science Department.....	48
Cultural and Environmental Resource Management Program.....	50
Curriculum, Supervision, and Educational Leadership Department.....	52
Education, Development, Teaching and Learning Department.....	57
Engineering Technologies, Safety, and Construction Department.....	60
English Department.....	62
Family and Consumer Sciences Department.....	65
Finance and Supply Chain Management Department.....	67
Geography Department.....	68
Geological Sciences Department.....	68
Health Sciences Department.....	71
History Department.....	74
Individual Studies Master Program.....	77
Information Technology and Administrative Management Department.....	84
International Studies and Programs.....	90
Law and Justice Department.....	91
Management Department.....	93
Mathematics Department.....	93
Music Department.....	94
Physical Education, School Health, and Movement Studies Department.....	101
Physics Department.....	103
Political Science Department.....	103
Primate Behavior and Ecology Program.....	105
Psychology Department.....	107
Science Education Department.....	111
Sociology Department.....	112
Theatre Arts Department.....	112
World Languages and Cultures Department.....	116
Course Descriptions.....	117

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, Hebel 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 three-year 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 98926-7527.

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 (<i>During the assigned enrollment appointment</i>)
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 business on this date will not appear on transcripts or have tuition assessed.
September 25	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.
September 25	Audit and Credit/No Credit	Deadline to declare audit and credit/no credit
Sept 22-Oct 1 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.
Sept.26-Oct.2	\$25 Late Registration Fee	Instructor signature required to enroll
October 2	\$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.
Oct. 3-Oct. 30	\$50 Late Registration Fee	Instructor and Department Chair signatures required to enroll
October 18	\$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.
Oct. 31-Nov. 30	\$75 Late Registration Fee	Instructor and Department Chair signatures required to enroll
Nov. 5-Nov. 30	Registration for WINTER	See WINTER 2019 calendar
November 12	Veterans Day (Observed)	No classes/administrative offices closed
November 21-23	Thanksgiving and Native American Heritage Day Recess	No classes/administrative offices open November 21 No classes/administrative offices closed November 22-23
November 30	Course Challenge Form Deadline	Deadline to submit course challenge forms to Registrar Services
November 30	Classes End	Last day of class instruction
December 3	Study Day	Study Day
December 4-7	FINAL EXAMS	See exam schedule
December 7	End of Quarter	End of Quarter (last day of finals)
December 11	Grades Due	10:00 p.m. deadline for instructors to submit grades via MyCWU
54	Instructional Days per Quarter	Includes final exams and study days

WITHDRAWAL DEADLINES

GRADUATION DEADLINES

Oct. 18	Deadline for 50 percent refund with complete withdrawal	June 29	Deadline to apply for baccalaureate degree for FALL 2018
Nov. 2	Uncontested withdrawal period deadline	Sept. 19-25	Master's degree final folder check for FALL needs to be requested during first week of classes
Nov. 30	Hardship withdrawal petition deadline	Sept. 28	Deadline to apply for baccalaureate degree for WINTER
Nov. 30	Complete university withdrawal	Nov. 26	Complete the final "Turnitin" check. All forms submitted and fees paid for FALL graduation for Thesis Option Students

WINTER 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

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 (<i>During the assigned enrollment appointment</i>)
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-course-fee 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-course-fee 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 (<i>During the assigned enrollment appointment</i>)
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

GRADUATION DEADLINES

April 24	Deadline for 50 percent refund with complete withdrawal	Jan. 11	Deadline to apply for baccalaureate degree for SPRING
May 10	Uncontested withdrawal period deadline	Mar. 26-Apr. 1	Master's degree final folder check for SPRING needs to be requested during first week of classes
May 31	Hardship withdrawal petition deadline	April 5	Deadline to apply for baccalaureate degree for SUMMER
May 31	Complete university withdrawal	May 28	Complete the final "Turnitin" check. All forms submitted and fees paid for SPRING graduation for Thesis Option Students
		June 7	Complete all master's degree requirements for 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 business on this date will not appear on transcripts or have tuition assessed.
June 19	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.
June 16- 24 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.
June 20-26	\$25 Late Registration Fee Six-week 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 Session	Instructor and Department Chair signatures required to enroll
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 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 Session	Instructor and Department Chair signatures required to enroll
July 16	\$100 Fee -Unpaid Tuition and Fees	\$100 fee assessed on unpaid tuition and course fee balances. 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
August 16	Full Session Classes End	Last day of class instruction for full session
August 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 complete withdrawal	April 5	Deadline to apply for baccalaureate degree for SUMMER
July 12	Uncontested withdrawal period deadline	June 17-21	Master's degree final folder check for SUMMER needs to be requested during first week of classes
July 19	Hardship withdrawal petition deadline for six-week session	June 28	Deadline to apply for baccalaureate degree for FALL 2019
July 19	Complete university withdrawal for six-week session	Aug. 2	Complete the final "Turnitin" check. All forms submitted and fees paid for SUMMER graduation for Thesis Option Students
Aug. 9	Hardship withdrawal petition deadline for full session	Aug. 16	Complete all master's degree requirements for SUMMER graduation
Aug. 9	Complete university withdrawal for 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 co-curricular 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

Graduate Studies and Research

The university provides quality graduate programs in selected fields, taught by a faculty committed to excellence in teaching and research. A hallmark of this university is to offer our graduate students:

- Small classes
- Opportunities to work closely with professors
- An excellent learning environment
- Low tuition
- Hands-on research experience
- An attractive setting in a friendly community

Administration and Organization

The School of Graduate Studies and Research (SGSR) welcomes visits and inquiries from graduate students and prospective graduate students. Our staff is here to assist the academic community, both in the area of graduate studies as well as in the sphere of grants and sponsored research.

Dean

Kevin Archer, PhD

Director of Research and Sponsored Programs

Julie Guggino

Program Coordinator

Lynn Niemi

Communications Consultant

Justine Eason

Program Support Supervisor, Post Admissions

Dawn Anderson

Fiscal Specialist / Graduate Assistantship Coordinator

Diane Houser

Grant and Contract Specialist, Research and Sponsored Programs

Program Coordinator, Institutional Animal Care and Use Committee

Leslie Lotspeich

Human Protections Administrator (HPA)

Sandy Martinez

Program Assistant

Lila Harper
Barge Hall, room 214
509-963-3101
masters@cwu.edu
www.cwu.edu/masters

Business hours: 8 a.m. through 5 p.m., Monday through Friday (PST), except holidays.

General Information

The graduate experience at CWU is challenging, rewarding, and exciting. Like every quality experience, it is subject to certain rules and policies to ensure high

academic standards. It is the responsibility of graduate students to familiarize themselves with these and the policies of the programs in which they are enrolled. Central believes in equal educational and employment opportunity for all without regard to race; color; creed; national origin; gender; age; marital status; or any sensory, physical, or mental handicap.

Additional information concerning university policies and guidelines applicable to graduate programs, including accreditation, institutional memberships, grading practices, mission and roles, and tuition and fees, may be found in various sections of this catalog.

Definition of a Graduate Student

A graduate student is anyone duly admitted to graduate study at CWU, and who is officially enrolled in a graduate program here. Graduate programs offered include master's degree programs, educational specialist degree programs, fifth-year and other certificate programs, and non-degree study as a resident or visiting graduate student.

Application and Admission to Graduate Study

Central Washington University offers the following graduate degrees:

Education Specialist

School Psychology

Master of Arts

English: Literature

English: TESOL

History

Theatre

Master of Education

Higher Education

Literacy

Master Teacher

School Administration

Special Education

Master of Fine Arts

Master of Music

Master of Science

Applied Behavior Analysis

Athletic Administration

Biology

Chemistry

Computational Science

Cultural and Environmental Resource Management

Experimental Psychology

Family and Consumer Sciences

Geological Sciences

Health and Physical Education

Information Technology and Administrative

Management

Integrative Human Physiology
Law and Justice
Mental Health Counseling
Nutrition
Primate Behavior
Public Administration

Graduate Certificate

Graduate certificate programs are limited in scope relative to a graduate degree program but provide an opportunity for advanced study with a particular focus. Subject to the regulations that govern a specific program, a graduate certificate can often serve as an intermediate accomplishment for a student whose ultimate goal is a graduate degree.

A graduate certificate differs from an undergrad or post-baccalaureate certification. Please contact specific program departments concerning if they offer graduate certificates.

Admissions Information

Central offers admission to applicants who have high potential for success in their chosen graduate disciplines. We seek to admit people with diverse backgrounds in order to enhance the learning environment for all students.

Admissions decisions are based upon a combination of factors. These include grade point average, letters of recommendation from professors or others able to critically assess an applicant's ability to succeed in a graduate program, a written statement of purpose, standardized test scores (if applicable), academic preparation for work in the proposed field, and the applicant's interests as matched with those of faculty.

Types of Admission

CWU distinguishes three types of admission: regular, probationary, and conditional.

Regular: To be eligible for regular admission, an applicant must have earned a bachelor's degree from a recognized four-year college or university in the U.S. or the equivalent from an institution abroad. The applicant must demonstrate, in the opinion of the faculty and the dean of the SGSR, the ability to successfully complete a master's degree. The applicant must also have achieved at least a 3.0 (B) average in all coursework attempted during the last 90 quarter hours (60 semester hours) of study.

Probationary: An applicant who does not meet the minimum GPA admissions requirements, but who shows promise of success in a graduate program, may be considered for admission. He or she may be admitted on probationary status, based on departmental recommendations and a favorable review by the dean of SGSR. If admitted, the applicant is placed on probation for one quarter, during which time he or she must complete at least 10 credits of coursework approved by the home department. A grade point average of 3.0 (B) or more is required. Upon meeting this requirement and with the favorable recommendation of the department, the student will be fully admitted and allowed to continue toward candidacy for a degree. If the student is unable to achieve a 3.0 GPA, he or she will be dropped from the program.

Conditional: An applicant may also be conditionally admitted to master's programs when he or she does not fully meet admission requirements. Typically, such admittees lack certain field-related experiences and/or

required background knowledge. An applicant may also be admitted to this category pending receipt of the official transcript(s) indicating completion of the bachelor's degree. A conditionally admitted student will achieve regular status when the condition has been satisfied and the admitting department recommends advancement to regular status.

Applying to CWU

CWU welcomes applications from all those who meet our minimum requirements for admission. To apply, visit www.cwu.edu/masters and click on the apply now link or obtain a set of our application materials from:
CWU School of Graduate Studies and Research
400 East University Way
Ellensburg, Washington 98926-7510

A completed application file consists of the following materials received by the School of Graduate Studies and Research:

A completed application for graduate admission.

A written statement of educational and professional objectives.

Three letters of recommendation written by professors or others capable of assessing your potential for success in a graduate program.

Official transcripts from all universities and colleges attended.

Graduate Record Examination (GRE) or Graduate Management Admissions Test (GMAT) scores if required by the program. Scores should be no more than five years old at the time of application.

A non-refundable application fee of \$75 payable at the time of filing application.

International Applicant

In addition to the above requirements, all international applicants must complete the following:

If the applicant's native language is not English, he or she is required to submit one of the following: a) a minimum Test of English as a Foreign Language (TOEFL) iBT, score of 79 (scores should be no more than two years old at the time of application) b) a minimum International English Language Testing Systems (IELTS) academic score of 6.5 (scores should be no more than two years old at the time of application) or c) a baccalaureate degree from an accredited U.S. university or an accredited international university where the main language of instruction is English. Please note that the Department of English requires a TOEFL IBT score of 88 or an IELTS academic score of 6.5. Students who originate from one of the following countries are considered to have met English Proficiency Standards: Australia, Ireland, New Zealand, United Kingdom, and English-speaking provinces of Canada. These students are exempt from furnishing proof of English proficiency documents.

International applicants are also required to complete a confidential financial statement and submit evidence that sufficient funding is available in U.S. currency through personal resources and/or

a sponsor for one academic year's experience at CWU.

Foreign university transcripts must be evaluated by Central Washington University or accompanied by a course-by-course transcript evaluation when requested. You may find further information regarding the evaluation and agencies that are accepted by CWU at www.cwu.edu/masters/prospective-international-students.

Scholarships may be available to you. Please check out the international scholarship website www.cwu.edu/international-programs/ for details or contact their office via email: intladm@cwu.edu.

Application Deadlines

The priority deadlines for submitting all application materials are as follows:

February 1 for fall quarter

April 1 for summer quarter

October 1 for winter quarter

January 1 for spring quarter

Deferred Admission

If a department and the SGSR wish to admit an applicant to a program that has no space available for a particular quarter, a deferred admission may be offered. The quarter for which admission is deferred will be negotiated between the applicant and the department. If both agree, the applicant will be asked to accept or decline in writing the deferred admission, which will be valid for up to one year from the term in which the person was to have matriculated. If the applicant agrees to defer admission, no new application or application fee will be required. He or she will be expected to pay the non-refundable confirmation deposit of \$55, and to obtain the approval of the home department and the dean of the SGSR concerning the quarter in which he or she wishes to enroll.

An applicant who has been admitted to graduate study, but who wishes to defer matriculation to a subsequent quarter, may do so with the written authorization of the home department and the SGSR. Such a deferment will be valid for up to one year from the term in which the student was to have matriculated. If the department is unable or unwilling to provide this authorization, the applicant will be obliged to reapply for admission, pay the admission application fee, and provide additional documents as needed.

Application for Graduate Certificates

Applicants to a certificate program must meet the minimum requirements for admission into the SGSR. An academic unit responsible for a particular certificate program may impose more stringent restrictions for that program.

Funding Opportunities

Assistantships

CWU offers a number of assistantships during the academic year to beginning and continuing graduate students. Graduate assistantships are available in each of our graduate program departments. Typically graduate assistants teach, serve as research assistants, and/or perform university service functions.

Applicants must:

be fully admitted to a master's degree program and be registered with at least 10 credits (of these, at least 5 credits must be numbered 501 or higher unless on an approved Course of Study form) at the commencement of the contract period
be recommended to the position by the department where the appointee would be assigned; and
demonstrate a high level of professional and academic promise.

The priority deadline for assistantship application is February 1.

Full-time assistantships require an average of 20 hours of service per week and enrollment in at least 10, but not more than 14, credit hours per quarter, and a minimum grade point average of 3.0 each quarter. All graduate assistantship appointments are made with a formal written contract letter from the dean of SGSR. Assistantship award announcements are not made until after April 15.

Fellowships

Nonresident 50% Tuition Waiver Graduate Fellowships

SGSR offers a limited number of Nonresident 50% Tuition Waiver Graduate Fellowships each academic year. The fellowships are open to WA state nonresidents and are awarded to exceptional graduate students who show promise in scholarship, academics, leadership or meritorious service. Fellowships are also available for students with diversity experiences that contribute significantly to the quality of CWU's graduate programs. The fellowships typically include a 50% non-resident tuition waiver for the 9-month academic term. There is no stipend provided. Fellowships are only awarded to full-time students who have been admitted into a CWU graduate program. Preference is given to newly admitted candidates; however, fellowships are renewable for an additional year at the level and type originally funded. Students must remain at full-time status to continue receiving the waiver and maintain a 3.0 GPA. Awards are withdrawn if a student attains WA state resident status during the award period. A student must be nominated by the degree program's head before consideration by the SGSR.

The Graduate Student Summer Research or Creative Activity Fellowship provides a \$3,500 stipend for students to conduct research or creative activity over ten weeks during the summer, usually between the student's first and second year of graduate study. The student must be registered for either summer or fall quarter.

The Master's Research or Creative Activity Fellowship provides up to \$1,000 for expenses for students to conduct research related to their thesis or creative activity.

The Travel Award program makes available to graduate students up to \$400 to travel to a conference or meeting at which they are presenting research or a creative activity. A student must apply for each fellowship in conjunction with their committee chair. Find more info on the SGSR website.

Scholarships

Scholarships exclusive to graduate students:
CWURA Graduate Student Scholarship- This competitive scholarship is offered to provide \$1,000 to one student per

year who holds an earned bachelor's degree from Central Washington University and who is admitted to or currently enrolled in a master's degree program as a full-time student at Central Washington University for the purpose of defraying all or part of the student's unmet financial need as determined by the Office of Financial Aid.

The CWU Scholarship Office maintains an extensive list of general and CWU-only scholarships, as well as pointers to databases of scholarship opportunities.

For further information and application forms for funding assistance, interested persons should visit the SGSR webpage at www.cwu.edu/masters.

Additional Financial Aid

Financial aid is available through the university from federal and state funds for students demonstrating financial need. Applications for financial aid may be obtained from the Office of Financial Aid and should be submitted no later than March 15. Employment opportunities, both on and off campus, are typically available.

Master's Degree Guidelines

The following are the guidelines governing master's degrees within the School of Graduate Studies and Research (SGSR). Additional requirements established by specific departments and programs may be found in this catalog under the special headings of these units. Before a decision to enter into a particular graduate degree program is made, the student is urged to communicate directly with the department to determine the most current program requirements. The student is responsible for seeking academic advising in the department or program of the specialization chosen. The department can assist in many of the details necessary to completing program requirements, especially early in the student's program.

Please note that each graduate department is headed by a chair, director or coordinator who is responsible for working with graduate students in developing individual courses of study, establishing graduate committees, and in advising graduate students. Graduate students are expected to work with the head of the program's in departmental graduate affairs. In all matters relating to university guidelines, the dean of the SGSR is the final arbiter, though he or she consults with program heads in carrying out these duties.

Graduate-Level Credit

Graduate-level credit is given for all courses at CWU numbered at the 501 level and above. However, courses which are specifically numbered 500 are reserved for professional development courses and cannot be counted toward a master's degree.

Graduate courses numbered 501 and above are typically restricted to students who have earned a bachelor's degree and who have formally been admitted to a graduate program of the university. Some courses may also require

competitive admission to a specific departmental graduate program.

Transferring Credit To CWU Graduate Degree Programs

Courses taken prior to formal admission to a CWU master's degree program may be considered for transfer to a CWU master's degree program provided that the criteria below are met.

A total of 15 graduate quarter credits may be applied to a CWU master's degree, of which no more than 9 quarter credits (6 semester credits) may be from accredited institutions offering graduate degrees other than CWU.

Credits accepted in transfer are those that are part of an accredited institution's regular graduate degree programs. In cases where courses sought for transfer generate both undergraduate and graduate credit, students receiving transfer credit are expected to have elected the course(s) at the graduate level and thus have completed more qualitatively and quantitatively than those who have taken the course(s) for undergraduate credit. Credit sought for transfer must be graded "B" or higher and must have been completed no more than six years before the date of the student's master's degree program completion. Credit hours only, not grades, may be transferred. The cumulative grade point average is computed for grades earned as a master's student at CWU.

All credits intended for transfer must be recommended for approval by the departmental/program head as a part of the official course of study filed with the SGSR. Before transfer credit can be considered part of a graduate student's program, an official transcript from the registrar of the institution from which the credit is to be transferred must be received by the SGSR.

Credits used to fulfill requirements for another master's degree, either at CWU or elsewhere, will not be transferred towards a CWU master's degree. Credit for short courses, attendance at conferences, brokered courses, workshops, and pass-fail courses are normally not accepted in transfer. Credit from any non-accredited institution or accredited institution not approved for graduate study will not be accepted for transfer. Credit obtained within the state of Washington from an accredited institution whose main campus is outside of the state will be considered for transfer only by special petition to the dean of the School of Graduate Studies and Research. The university reserves the right to determine the acceptability of transfer credit from any institution.

Course Challenge (Credit by Examination)

Under certain circumstances, the university may award credit or waive requirements based on course challenges or prior learning experience. Graduate students who have been admitted to a graduate program must obtain permission from the dean of the SGSR, their advisor, and the course instructor to challenge a course.

Credit/No Credit

Graduate students may take advantage of the credit/no credit option as a way to explore academic areas in which they are interested. Credit/no credit courses will not be

counted toward master's degrees nor will they be computed in the graduate grade point average. Students are allowed to select one class per quarter for a credit/-no-credit grade. A student electing this option must designate a class as credit/no credit during registration or during change of schedule period. The credit/no credit option is distinct from courses graded on a satisfactory/unsatisfactory (S or U) basis (see S or U grading).

Credits from Extension, Workshops and Correspondence Activity

No more than a combined maximum of 8 credits of workshop courses (591) may be applied toward a master's degree. Courses numbered 491 are not applicable to master's degree credit. Credits earned in correspondence courses are not applicable to any master's degree.

Academic Policies and Guidelines

Scholastic Standards

Any graduate student in a master's program whose cumulative grade point average falls below 3.0 at the end of any quarter will be placed on academic probation for the next academic quarter. While on probation, a student may not hold a graduate assistantship or a nonresident tuition waiver fellowship. If, after one quarter of probation, the student fails to raise her or his cumulative grade point average to 3.0 or above, the student will be withdrawn from the university. Students may not receive a master's degree from Central if their cumulative grade point average is below 3.0.

The cumulative grade point average is calculated using all courses taken after admission into a graduate program, whether part of the approved course of study or not. Grades for all courses included on the course of study must average at least 3.0 (B). Credit will not be accepted for courses on the course of study in which a grade lower than "C" is earned.

Student Study Load

The normal course load for graduate students not holding a graduate assistantship is 10-16 credits per quarter, and 10-14 for those with assistantships. Graduate assistants taking over 14 credits must have approval from the SGSR dean. For a graduate student not holding an assistantship, a study load of 17-19 credits may be approved by the chair or graduate coordinator of the department of the student's specialization. Loads above 19 credits are not normally permitted. Exceptions may be made only by the SGSR dean.

Maximum Time Limit to Degree Completion

No credit earned more than six years before the date of the master's degree award may be counted as part of the degree credit requirement except if approved by formal action by the dean of the SGSR. This includes applicable work transferred from other institutions.

Master's degree students are expected to complete all requirements for the master's degree within six years from the date of first enrollment. Students seeking to interrupt their studies may do so with the approval of the chair or graduate coordinator of the home department but must pay

a non-refundable fee for registration as an on-leave student. This fee covers four successive academic quarters beginning with fall quarter. While on leave, graduate students retain library privileges. If a degree program is not completed during the six-year period from the quarter for which a student was admitted, the student must reapply to the university. If readmitted, only those credits graded B or higher and completed no more than six years from the date of the student's program completion may be counted toward the degree.

Continuous Registration

All master's degree students, including students in attendance only during summer quarter, must satisfy the continuous registration requirement each fall quarter or summer to maintain active status. Students whose master's program runs throughout the academic year will be assessed this fee every fall quarter. Students whose program meets primarily in the summer months will be assessed the on-leave fee at the beginning of summer quarter. A master's degree student may register as a full-time, part-time, or as an on-leave student to satisfy the requirement. Students desiring on-leave status are required to pay a \$40 fee each fall quarter. Failure to maintain continuous registration will be taken by the university to signify the student's resignation from the program. Students who resign and later wish to resume study toward a degree must reapply for admission and complete all steps outlined for master's admission. Readmission cannot be guaranteed.

Graduate Committee

Every master's degree candidate must have a graduate committee of at least three members. Interdisciplinary membership is strongly recommended. In some departments, a student may choose her/his committee in consultation with an advisor; in others, the chair or graduate coordinator assigns graduate committees. In either case, the graduate student is expected to work with the department chair or graduate coordinator in forming her/his committee. The student must submit a Graduate Committee and Option Approval Form to the graduate office. If approved, the committee becomes the student's official advisory committee. The thesis or non-thesis option advisor is the student's graduate committee chair and generally is a faculty member in the department of specialization.

The Graduate Faculty

The graduate faculty are professors, teachers and mentors, as well as active researchers and artists. They blend instructional and research activities and in so doing afford our graduate students the benefit of state-of-the-art research and creative experience with personalized instruction. Only a regular member of the graduate faculty may serve as chair of a graduate committee. Under unusual circumstances, and with the written recommendation of a graduate student's home department or program and the approval of the dean of the SGSR, an associate member of the graduate faculty may serve as co-chair of a student's graduate committee. The associate member will serve as co-chair along with a regular member of the graduate faculty. The minimum number of members needed for a graduate committee will remain at three. Please check with faculty members concerning their graduate faculty status before forming your committee.

Course of Study

All candidates must complete at least 45 credits (some programs require more credits) as outlined in an official online catalog, endorsed by the department chair or graduate coordinator and the committee chair and filed with and approved by the SGSR. The course of study should be filed before a graduate student has completed 25 quarter credits leading to the master's degree; however, it may be required prior to that for financial aid purposes. An approved course of study must be on file with the SGSR before the graduate committee and an Option Approval form will be considered for approval.

The official course of study reflects the credit required to meet requirements for the master's degree. Unless revisions are approved by the department chair or graduate coordinator and the dean of the SGSR, the student must complete satisfactorily or be currently enrolled for all credit specified before advancement to candidacy or before the degree award will be processed. Each graduate student, as part of degree requirements must complete a thesis, project and/or comprehensive examination (see below for information about culminating experiences)

The student's graduate advisor or committee chair, in consultation with the department chair and/or graduate coordinator, works with the student in designing a program of study. Once agreed upon, the student prepares an official course of study form obtained from the graduate school website www.cwu.edu/masters, which is then endorsed by the department chair or graduate coordinator, along with the student's committee chair. Upon receipt in the SGSR, each course of study is reviewed to ensure that it meets the minimum requirements of the institution.

The credit on the course of study must be separate and distinct from credit applied toward any other degree. No more than 15 quarter credits completed at CWU before the quarter of formal admission will be accepted on the official course of study for the master's degree, although the department and the graduate office reserve the right to limit the use of such credit, or not count it at all. Graduate students are urged to discuss the counting of such credit as soon after being admitted as possible.

Course of study forms are available on the Graduate School's website at www.cwu.edu/masters, or in Barge Hall, room 214.

Certificate Course of Study

A student who is enrolled in a graduate certificate program is required to submit a proposed course of study form for a graduate certificate to the SGSR. This form lists the courses proposed by the student to fulfill the total credit requirement for a certificate. The student is responsible for completing and signing the form and obtaining the necessary program and departmental signatures. The form is then submitted by the student to the SGSR for final review and approval. A student should submit the form to the SGSR shortly after admission to the certificate program (for certificates that can be completed in less than three quarters) or in the quarter when at least half of the total credit requirement for the certificate is expected to be met. The program of study leading to a graduate certificate must satisfy the following conditions:

The total credit requirement cannot exceed half of the total number of credits required by the most closely related master's degree program offered by the University;

The following courses cannot be applied to a certificate: 500, 595, 598, 689, and 700.

Any course applied to a previously earned degree of any type at any institution cannot be applied to meet the credit requirements of a graduate certificate program.

At least two thirds of the total credit requirement must be earned at Central Washington University.

Only one 400 level course can be included in the certificate program. The student must earn a B or above in this course in order for it to count towards the student's course of study.

A student may be co-enrolled in two certificate programs if approved by the Program Coordinator(s) and department Chair(s).

If approved by the Program Coordinator, department Chair, and Dean of SGSR, all credits earned with a grade of B or above in a CWU graduate certificate program may be used towards a master's degree program.

The student cannot apply CWU certificate credits into an Individual Studies Master's program.

All requirements for a graduate certificate (including courses completed at another college or university) must be started and completed within three years. If the student continues on to a master's program, students are expected to complete all requirements for the master's degree within six years from the date of first enrollment.

Individual Studies certificates are prohibited.

Any divergence by the certificate curriculum from these requirements must be approved by the dean of SGSR.

Individual Studies Programs

Individual studies master's degree programs are intended to allow highly motivated students to pursue an interdisciplinary course of study combining coursework from more than one discipline, where no such formal master's degree program is in place. Individual studies master's program proposals must show academic rigor, be programmatically coherent, and intellectually sound. Final approval of such programs resides with the dean of SGSR and the chair of the Academic Standards Committee of the Graduate Council.

Prospective applicants seeking to pursue an individual studies master's degree must contact the dean of SGSR, the chair of Academic Standards Committee of the Graduate Council, and the potential department to discuss the feasibility of the desired program.

Credits Required

A graduate student must complete at least 45 quarter credits (some programs require more credits) in the 400, 500, and above credit level groups. At least 25 of the total required credits for the degree must be numbered 501 or above.

Some departments restrict the number of credits below the 500 level. Please consult the departmental listings in this

catalog for specific additional credit level requirements.

At least 30 credits appearing on the course of study for the master's degree must be on a graded scale (not S or U). Credit/no credit courses will not be counted toward a master's degree at CWU.

Culminating Experience

All students pursuing the master's degree must demonstrate scholarly proficiency by satisfactorily completing one or more of the following:

- a thesis;
- a written report of a field study, an applied research project, or an internship;
- a creative or studio project;
- a portfolio review;
- a comprehensive written examination; and/or
- an oral exam.

The student's graduate committee will approve the culminating experience type before work begins. This should be indicated on the Option Approval form.

Thesis Option

A thesis is the written product of the systematic study of a significant problem. It clearly identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The graduate student is expected to work closely with the thesis committee chair and committee in the conception, design, and execution of the thesis. Normally, an oral defense of thesis will be required.

Theses must conform to standards described in the thesis regulations that are available on the SGSR's website www.cwu.edu/masters. All these are required to be uploaded to ScholarWorks at the CWU library.

Non-thesis Options: Applied Project, Creative project, Studio Project and/or Portfolio Review

A project or portfolio review is a significant undertaking of a pursuit appropriate to the fine arts, applied arts or to professional fields. It must be original and show independent thinking; appropriate form and organization; and a rationale. A project reflects applied field research or creative effort, often suited to the student's individual and/or professional goals and allows application of technical skills and knowledge with a practical emphasis. Please see individual program requirements for specific project/portfolio review guidelines and information.

Comprehensive Exam

A comprehensive examination is an assessment of the student's ability to integrate the knowledge of the area, show critical and independent thinking and demonstrate mastery of the subject matter. The results of the examination evidence independent thinking, appropriate organization, critical analysis and accuracy of documentation. An oral defense of the exam may be required. Please see individual program requirements for specific information.

Research with Human Subjects

Institutional Review Board Approval

Central is concerned that no research conducted at this institution by its faculty or its students expose people who

participate as subjects to unreasonable risk to their health, general well-being, or privacy. Therefore, all CWU-affiliated research, including student research projects which involve human subjects, must be reviewed by the university's Human Subjects Review Committee (HSRC), CWU's institutional review board for the protection of human subjects. Students apply for HSRC review by filling out an application form, which can be obtained online at www.cwu.edu/hsrc or from the HSRC office. Early contact with the human protections administrator is recommended. No research can be initiated prior to formal approval.

Research with Animal Subjects

Animal Care and Use Approval

Graduate students whose research involves vertebrate animal subjects may not commence research without first obtaining clearance from the Animal Care and Use Committee. Forms for applying for review may be obtained online at www.cwu.edu/masters.

Completing Degree Requirements

Final Folder Evaluation

All graduate students must request for a final review of their file no later than the first week of their anticipated final quarter via SGSR website: www.cwu.edu/masters/folder-check-request. This review will evaluate candidacy requirements, grade point average, course of study completion, and culminating experience option form completion. Advancement to candidacy and, if applicable, final thesis defense, oral examination and/or written examination scheduling will not be permitted except during the final quarter.

Final Examination

If necessary for a program's degree completion requirements, after the student has registered and been cleared to proceed toward completion through a folder check by SGSR, he or she must pass oral and/or written examinations covering courses, seminars, thesis, or other culminating experiences. A permission form authorizing the final examination will be issued by the SGSR after a final evaluation of the student's course of study has been completed and once the student has met the final quarter enrollment requirements.

If applicable, the permit for scheduling a final examination, approved by the committee, must be filed in the SGSR at least three weeks in advance of the examination. The final examination must be scheduled between the hours of 7 a.m. and 6 p.m., Monday through Friday, when the university is in session (not between quarters). Final examinations are conducted by the candidate's committee and are open to the faculty. The committee alone shall decide upon the merit of the candidate's performance. Final assessment of the examination will be reported on a satisfactory/unsatisfactory basis. The candidate shall pass the examination if two-thirds of the official graduate faculty committee members so indicate. In the event of an unsatisfactory final examination, a second examination may be scheduled upon the endorsement of the major department chair and with the approval of the dean of SGSR for the subsequent quarter with at least two months intervening.

All degree requirements must be completed within the same or next quarter from the exam date. Failure to

complete remaining requirements by the end of the next quarter will result in requiring the final examination to be retaken.

Final Quarter Enrollment Requirement

A student admitted to a master's degree program must be registered for a minimum of two (2) credits at the university during the quarter the master's degree is conferred. Enrollment for this purpose should be completed during the usual early registration or regular registration periods to ensure degree conferral if requirements are met.

A student whose name has been placed on the degree list for a particular quarter but who does not complete the requirements for degree conferral by the published deadline will not earn their degree and will be required to register for another quarter.

Advancement to Candidacy

A student becomes eligible for advancement to candidacy for a master's degree upon fulfillment of the following requirements:

- Completion of the course requirements as set forth in the course of study;
- Completion of the culminating experience and, if applicable, the passing of an oral and/or written examination deemed necessary by the major department.
- Attainment of a cumulative grade point average of 3.0 (B) or higher for all courses taken since admission to the graduate program and all work included in the course of study;
- Completion of additional departmental requirements, e.g., proficiency in a foreign language;
- Fulfillment of the statute of time limitation (six years) requirement;

Second Master's Degrees

Students seeking a second master's degree must be admitted to the second program in accordance with admission regulations and must complete an approved course of study (of at least 45 credits) distinct from the courses offered for the first master's degree.

Graduation

Application for a master's degree must be submitted to the School of Graduate Studies and Research by the stated quarterly deadline. The application is generated by the graduate office. The application will not be completed without payment of degree fees. The fee for the master's degree is \$50. The application is for a specific quarter of degree conferral. If requirements are not met, the student must reapply and pay the fees for degree conferral in a subsequent quarter.

Commencement

Candidates for the master's degree are encouraged to participate in the commencement exercises following the completion of degree requirements. Students graduating in winter, spring or summer quarters are allowed to participate in spring commencement and/or the separate hooding ceremony. See the academic calendar in the front of this catalog for deadline dates to register for commencement participation and arrange for regalia.

University Centers

Central Washington University has seven campus locations in addition to the residential campus in Ellensburg. The University Centers offer upper-division (300- and 400-level) and graduate-level coursework leading to baccalaureate and master's degrees. Day and evening classes are offered to accommodate the needs of time- and place-bound students. Visit the webpage at www.cwu.edu/about/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

If a graduate degree program or course is offered at a University Center, students must submit an application through the School of Graduate Studies and Research.

Registration

Students typically register through MyCWU.

Tuition

See current tuition rates and fees or refer to the Registrar Services home page at www.cwu.edu/registrar. Some Center courses are offered through the Continuing Education department and may have a different tuition schedule. Visit the Continuing Education web site at www.cwu.edu/ce/ to determine if your degree program is through this office. All 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 509-963-3028, 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

CWU-Everett

At Everett Community College
Gray Wolf Hall
2000 Tower Street
Everett, WA 98201
425-259-8900

CWU-Lynnwood

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

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

CWU-Pierce County

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

CWU-Wenatchee

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

CWU-Yakima

At Yakima Valley Community College
Deccio Higher Education Center
1000 South 12th Avenue, Room 107
P.O. Box 22520
Yakima, WA 98907
509-574-6894

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 10-18 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 10-18 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:

- 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.
- 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.
- 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:

- 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.

- 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.

- Has received a Certificate of Eligibility verifying VA educational benefit.

Procedure:

- Request for Veterans Center to send supporting documents to Registrar's Office.

- 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 s/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:

Admission to CWU.

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).

Veteran must be a Washington State Resident.

Veteran must complete the FAFSA-Financial Aid Application each year.

Minimum enrollment must be halftime (6 credits)

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-2-20-090-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).

Academic and General Regulations/Guidelines

Registration

Currently enrolled students may register for courses by using MyCWU, the web registration system.

Registration for new or readmitted students can register during the open enrollment period. Students may change their schedule during the designated change of schedule period. 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.

Consult the university calendar or contact the SGSR to determine exact dates for early registration, open enrollment, tuition deadlines, and the change-of-schedule period.

Academic Credit

CWU operates on a quarter system and grants quarter credit. Some institutions within the state of Washington 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.

Student Study Load

The normal course load for graduate students not holding a graduate assistantship is 10-16 credits per quarter, and 10-14 for those with assistantships. Graduate assistants taking over 14 credits must have approval from the SGSR dean. For a graduate student not holding an assistantship, a study load of 17-19 credits may be approved by the chair or graduate coordinator of the department of the student's specialization. Loads above 19 credits are not normally permitted. Exceptions may be made only by the SGSR dean.

Seniors in Graduate Courses

Seniors may enroll in graduate courses with the permission of the instructor and the department chair. Credit earned by seniors may meet either undergraduate or graduate program requirements, but not both. If the credit earned by a senior is to be applied to a graduate program, approval must be obtained 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 same course in a subsequent 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. Graduate catalogs are valid for five years and may be found at www.cwu.edu.

Graduate students admitted to the master's degree program may use the catalog they are admitted under or the current one depending on the specific program's and the SGSR's approval of the student's Option Approval Form.

Leave of Absence

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/Senior Vice President for Academic Affairs. 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." 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.

Withdrawal from the University

A student may withdraw from the university 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." 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 re-apply 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
A A-	4.0 3.7	Excellent	Meets all objectives of the course and fulfills all requirements; performs at a level that reflects excellence
B+ B B-	3.3 3.0 2.7	Good	Meets all objectives of the course and fulfills all requirements; performs at a high level
C+ C C-	2.3 2.0 1.7	Satisfactory	Meets all objectives of the course and fulfills all requirements; performs at a satisfactory level
D+ D D-	1.3 1.0 0.7	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, a 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 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 appropriate course is completed.

Grade Point Average

Grade point averages will be calculated by dividing grade points earned by the credit hours attempted. In computing cumulative grade point averages, only work attempted at Central will be included in the computation, with the following exception: cumulative grade point average for students in the Teacher Certification Program will include all coursework from all colleges attended.

Credit/No Credit Option

Students are urged to use the credit/no credit option as a way to explore academic areas of interest.

The courses must be selected from free electives; they must not be courses in 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 at www.cwu.edu/registrar/request-transcripts on MyCWU at the end of each quarter. Students may request a hard copy at getmytranscript.com.

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.

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.

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 Canvas 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 class 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 encouraged to make accommodations.

Members of the university community directing or arranging such activities must adhere to the following guidelines:

Scheduling of such activities shall not overlap with official final examination periods.

Scheduling of such activities shall not require an absence of more than three (3) consecutive class days.

Scheduling of such activities shall be announced to the students' far enough in advance for them to plan to fulfill course requirements.

Seeking permission for an exception lies with the sponsor and not with the student(s).

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 or waive requirements based on course challenges or prior learning experience. Matriculated students enrolled on a full-time basis may challenge any course which appears on the current course challenge list. 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 to challenge it. The following rules apply:

A course challenge application form, available in Registrar Services, must be completed.

A fee of \$15 per credit, with a minimum of \$30 per course, must be paid.

The challenge is conducted according to procedures established by the appropriate department.

The result of the course challenge is recorded as "S" or "U" on the transcript and is not used in computing GPA.

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, audited or if registration was canceled.

Credit by examination will not be allowed toward meeting the residence study requirements by the university (see Graduation Requirements section).

Please refer to the Undergraduate Catalog for the Course Challenge List

Course Substitutions

Students may petition the appropriate department chair and graduate program head if they wish to substitute courses within degree requirements. The course used for substitution must be similar in content to the required course. The substituted course(s) credits may not reduce the total required credits.

Academic Appeal

The student 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.

English Proficiency

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

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

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 8-40-050

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

College of Arts and Humanities

Administration and Organization

Interim Dean

Todd Shiver, DMA (Hebeler Hall, room 202)

Interim Associate Dean

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.

Graduate Degree Programs:

Art (MFA)

Specializations: Ceramics, Computer Art, Jewelry and Metal Smithing, Painting and Drawing, Photography, Sculpture

Contact: The Art Department, (509) 963-2665

English (MA)

Specializations: Literature, TESOL

Contact: Dr. Laila Abdalla; Laila.Abdalla@cwu.edu, (509) 963-3533

History (MA)

Specializations: Department list of 30+ fields of study

Contact: Dr. Jason Dormady; Jason.Dormady@cwu.edu, (509) 963-1244

Music (MM)

Specializations: Composition, Conducting, Performance, Pedagogy, Music Education

Contact: The Music Department, (509) 963-1216

Theatre Arts (MA)

Specialization: Theatre Production Specialization

Contact: Professor Scott Robinson, Scott.Robinson@cwu.edu, (509) 963-1273

Theatre Arts (MA)

Specialization: Theatre and Performance Studies

Specializations

Contact: Professor Scott Robinson,

Scott.Robinson@cwu.edu, (509) 963-1273

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:

- 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.

Graduate Degree Program:

Masters of Public Accounting (This program is no longer accepting applications)

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

Mail Stop 7415

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 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

Graduate Degree Programs:

Curriculum, Supervision and Education Leadership (MEd)
Specialization: Master Teacher
Contact: Dr. Denise Shaw, PhD; Denise.Shaw@cwu.edu;
(509) 963-2259

Curriculum, Supervision, and Education Leadership
Specialization: School Administration; Higher Education
Contact info: Dr. Don Wattam, EdD; Donald.Wattam@cwu.edu; 509-963-3075

Education, Development, Teaching and Learning (MEd)
Specialization: Literacy
Contact: Dr. Sharryn Walker, PhD;
Sharryn.Walker@cwu.edu; (509) 963-2133

Education, Development, Teaching and Learning (MEd)
Specialization: Special Education
Contact: Dr. Wendie Lappin Castillo, PhD;
Wendie.Castillo@cwu.edu; (509) 963-1104

Engineering Technologies, Safety & Construction
Management (MS)
PROGRAM ON HOLD UNTIL FURTHER NOTICE

Family and Consumer Sciences (MS)
Specialization: Family and Child Life
Contact: Dr. Amy Claridge, PhD; Amy.Claridge@cwu.edu;
(509) 963-2758

Family and Consumer Sciences (MS)
Specialization: Career and Technical Education
Contact: Dr. Kimberlee Bartel, PhD;
Kimberlee.Bartel@cwu.edu; (509) 963-2766

Health Sciences (MS)
Specialization: Nutrition
Contact: Dr. David Gee, PhD; David.Gee@cwu.edu; (509)
963-2772

Health Sciences (MS)
Specialization: Integrative Human Physiology
Contact: Dr. Karen Roemer, PhD;
Karen.Roemer@cwu.edu; (509) 963-2746

Health Sciences Graduate Certificate
Specialization: Public Health
Contact: Dr. Tishra Beeson, PhD.; Tishra.Beeson
@cwu.edu; (509) 963-2494

Information Technology and Administrative Management -
ITAM (MS)
Specializations: Structures of Data and Analytics for IT
Managers, Information Technology, Administrative
Management or Cybersecurity
Contact: Dr. Julie Bonner, DB; Julie.Bonner@cwu.edu;
(509) 963-2630 or Elizabeth Henry;
Elizabeth.Henry@cwu.edu; (509) 963-2620

Physical Education, School Health and Movement Studies
PEHMS (MS)
Specialization: Athletic Administration (Summer
Admission)
Contact: Dr. Rory Weishaar, Ed; Rory.Weishaar@cwu.edu;
509-963-1937

Physical Education, School Health and Movement Studies -
PEHMS (MS)
Specialization: Health and Physical Education
Contact: Dr. Mark Perez, PhD, Mark.Perez@cwu.edu;
(509) 963-1919

College of the Sciences

Administration and Organization

Dean

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 discipline-specific 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.

Graduate Degree Programs

Biological Sciences (MS)

Specializations: Botany; Stream Ecology & Fisheries;
Microbiology & Parasitology; Terrestrial Ecology
Contact: Dr. Jason Irwin; irwinj@cwu.edu; (509) 963-2884

Chemistry (MS)

Specialization: Chemistry
Contact: Dr. Yingbin Ge; yingbin@cwu.edu; (509) 963-
2817

Computer Science (MS)

Specialization: Computational Science
Contact: Dr. Boris

Kovalerchuk; Boris.Kovalerchuk@cwu.edu; (509) 963-1438

Geology (MS)

Specializations: Active & Regional Tectonics; Continental Dynamics & Seismology; Environmental Geochemistry; Geomorphology; Geomorphology & Climate Change, Paleohydrology & Volcanology
Contact: Dr. Christopher Mattinson; mattinson@geology.cwu.edu; (509) 963-1628

Law and Justice (MS)

Specialization: Law and Justice
Contact: Dr. Cody Stoddard; laj@cwu.edu; (509) 963-3208

Primate Behavior (MS)

Specialization: Primate Behavior
Contact: Dr. Lori Sheeran; sheeranl@cwu.edu; (509) 963-1434

Cultural and Environmental Resource Management (MS) Anthropology

Contact: Dr. Patrick Lubinski; lubinski@cwu.edu; (509) 963-3601

Cultural and Environmental Resource Management (MS) Specialization: Geography

Contact: Dr. Jennifer Lipton; Jennifer.Lipton@cwu.edu; (509) 963-1164

Psychology (MS)

Specialization: Experimental Psychology
Contact: Dr. Kara Gabriel; gabrielk@cwu.edu; (509) 963-2387

Psychology (MS)

Specialization: Applied Behavior Analysis
Contact: Dr. Sadie Lovett; lovetts@cwu.edu; (509) 963-3453

Psychology (MS)

Specialization: Mental Health Counseling
Contact: Dr. Elizabeth Haviland; haviland@cwu.edu; (509) 963-2371

Psychology (EdS)

Specialization: School Psychology
Contact: Dr. Heath Marrs; marrsh@cwu.edu; (509) 963-2349

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, 509-963-2075 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

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 for both undergraduate and graduate students.

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:

Graduate Program:

Master of Education, Higher Education

The Master of Education, Higher Education program is designed for candidates with an interest in working in administrative positions in institutions of higher education, civic organizations, non-profit organizations, national government organizations, or the social sector. Program coursework provides students with a strong grounding in leadership/management/organizational development with particular attention to the higher education context.

Addressing the growing demand for higher education professionals, the curriculum emphasizes theory, research methods and data analysis, as well as substantive knowledge and skill development in organizational leadership, particularly as it pertains to higher education. Delivered in a convenient online format the M. Ed. Higher Education provides students with a well-rounded foundation in higher education administration, and the ability to personalize the curriculum to meet their needs through elective courses and project/internship experiences.

For more information, please visit Academic Programs at www.cwu.edu/ce.

Programs not within the School of Graduate Studies and Research:

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 e-mail 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

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.

Individuals can start these career training programs anytime and work at a pace that individual's styles. Students 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 the online learning experience. They respond to questions and concerns, as well as encourage and motivate students to succeed. Upon completing program with a passing score, the student 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

CWU offers six-week, online, professional development courses to help individuals learn a new skill or enhance existing ones. Students 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 students will be able to interact with them and with fellow students in lively online discussion areas. New sessions start every month, so individuals can sign up anytime. Upon completing a course with a passing score, students 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 an individual's business operations or 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 reverse. 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 non-traditional 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

Prospective students interested in entering an online program submit an application to the School of Graduate Studies and Research at www.cwu.edu/masters.

Tuition

See tuition rates and fees or refer to the Registrar Services home page at www.cwu.edu/registrar. Programs and classes funded through the Office of Continuing Education courses are offered on a self-support basis and the tuition schedule is separate from full-time tuition and fees. To find out if your prospective program is offered through the OCE, visit the Continuing Education web site at www.cwu.edu/ce. All tuition and fees are subject to change.

Student Services

Questions regarding services that accommodate physical- and 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. For more information about financial aid, visit www.cwu.edu/financial-aid.

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 www.wildcatshop.net.

MASTERS ONLINE LEARNING GRADUATE DEGREE PROGRAMS

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

Qualifying States Disclaimer:

Central Washington University has authorization and/or exemption to deliver fully online degree programs to students. Please check www.cwu.edu/online-learning/out-of-state-students for a list of authorized states. **If you reside in a state not listed, you are ineligible** at this time for admission into a fully online degree program offered at CWU. Please check back periodically as new states are added when we receive additional authorizations.

For more information about online master's graduate programs visit www.cwu.edu/masters/online-graduate-programs.

Degrees Offered (Majors, Minors, Certificates)

Athletic Administration, MS
Biology, MS
Chemistry, MS (Non-Thesis Option)
Chemistry, MS (Thesis Option)
Computational Science, MS
Cultural and Environmental Resource Management, MS
Cybersecurity Management Graduate Certificate
Engineering and Technology Systems, MS (MSETS)
English Literature, MA
English: Professional and Creative Writing, MA
English: TESOL, MA
Experimental Psychology, MS
Family and Child Life, MS
Family and Consumer Sciences MS, Career and Technical
Education Specialization
Geological Sciences, MS
Graduate Preparation Program Certificate
Graduate Professional Accounting Certificate
Health and Physical Education, MS
Higher Education, MEd
History, MA
Individual Studies, MA, MEd, MFA, MS
Integrative Human Physiology, MS
IT Leadership Graduate Certificate
IT Management Graduate Certificate
ITAM MS, Administrative Management Specialization
ITAM MS, Cybersecurity Management Specialization
ITAM MS, Information Technology Specialization
ITAM MS, Structures of Data Analytics for IT Managers
Specialization
Law and Justice, MS
Library Media Certificate
Literacy, MEd
Master of Fine Arts in Art
Master of Music
Master Teacher, MEd
Mental Health Counseling, MS
Mentoring/Coaching Certificate
Nutrition, MS
Post-Baccalaureate University Certificate: Teaching and
Linguistic Diversity
Primate Behavior, MS
Public Administration, MS
Residency Principal's Certificate
Residency Program Administrator Certificate
Residency Program Administrator Certificate (Special
Education)
Rural and Community Health Graduate Certificate
School Administration, MEd
School Psychology, EdS
Special Education, MEd
Theatre Arts MA, Theatre Production Specialization
Theatre Arts MA, Theatre Studies Specialization

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

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
The Department of Accounting does not offer any graduate programs at this time.

Graduate Professional Accounting Certificate

The Graduate Professional Accounting Certificate Program provides advanced CWU accounting students with the skills, knowledge, professional orientation and credit hours required to become CPA eligible and succeed on the CPA exam. While this program will not be designed to teach to the CPA exam, it will help better prepare those who are interested and capable in succeeding on it. At the core of the program are three courses: BUS 541-Advanced Business Law, ACCT 550-Advanced Accounting and ACCT 583-Seminar Auditing.

Additionally, the program is designed to further develop CPA-oriented students with computer, research, communications, critical thinking, and time (project) management skills. Such skill development will be

integrated across the curriculum via three accounting labs that will address skills and professional orientation (the labs are BUS 541A, ACCT 550A and ACCT 583A). The accounting labs will offer 1 credit hours per quarter and will be an integral part of the program, offered concurrently with the companion core courses.

Admission Requirements

- Completion of Intermediate Accounting Series (ACCT 350, 351, 352) with 3.0 series GPA
- Completion or concurrent enrollment in ACCT 441/541-Advanced Tax 1: Individual
- 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 Accounting Graduate Certificate Program Committee

Graduation Requirements

Students must earn at least a 2.3 GPA in each course and an overall average GPA of 3.0 for all the courses in the certificate.

Program Requirements

The Professional Accounting Graduate Certificate requires the three core courses and three associated labs totaling 18 credits.

Required Courses

- ACCT 550 - Advanced Accounting **Credits: (5)**
- ACCT 550A - Advanced Accounting Lab **Credits: (1)**
- ACCT 583 - Seminar Auditing **Credits: (5)**
- ACCT 583A - Seminar in Auditing Lab **Credits: (1)**
- BUS 541 - Advanced Business Law **Credits: (5)**
- BUS 541A - Advanced Business Law Lab **Credits: (1)**

Total Credits: 18

College and Department Information

Accounting Department
College of Business

Anthropology and Museum Studies Department

College of the Sciences
Ellensburg
Dean Hall, room 357
Mail Stop 7544
509-963-3201
Fax: 509-963-3215

<http://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 jointly coordinates the master of science degree program in cultural and environmental resource management with the geography department. For further information, see cultural and environmental resource management.

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

Department Information

The Art and Design department offers a Master of Fine Arts (MFA) degree for students wishing to study visual art beyond the baccalaureate level. The degree requires that candidates complete coursework in art concepts and criticism, art history, studio area of concentration, electives, and a creative thesis project.

The 90-credit MFA is a terminal degree providing students with professional levels of competency and experience in studio art. The MFA program qualifies students for careers as teachers in higher education, as professional studio artists, and for other studio-arts-related vocations. The following studio art concentrations are offered at Central:

Ceramics
Drawing
Graphic Design
Jewelry and Metalsmithing
Painting
Photography
Sculpture
Wood Design

Policies and Procedures

Departmental policies and procedures regarding graduate study are fully described in the departmental "Graduate Handbook."

Application and Admission: In addition to the university guidelines governing admission to graduate degree programs, the following specific guidelines apply to the MFA program:

Acceptance is primarily based on the student's potential as evidenced by a portfolio, previous coursework in art, goals consistent with departmental resources, and other experiences relevant to art making. Applicants may be asked to have a telephone interview with a faculty member in their area of studio concentration before being admitted to a program.

Applicants are required to submit 20 examples of their recent work in the form of digital images along with an image list. This documentation should represent the depth and breadth of the applicant's work. Students are strongly urged to visit the campus and arrange a personal interview with faculty members in their major area of concentration and with the department chair prior to submitting an application. Consistent with the above criteria, applicants with undergraduate degrees in disciplines other than visual arts are encouraged to apply.

Transfer of Credits: The general provisions for the transfer of credits are set forth under the catalog heading, "Master's Degree Guidelines."

Residency Requirements: Students must be in residence three consecutive full-time quarters (excluding summers). All studio credits, except those approved under the transfer of credit provisions, must be taken in residence. For these purposes, residence may include credits taken in travel study, internship programs, or other study taken elsewhere but listed on the approved course of study.

Graduate Committee: A committee of at least three faculty members will be organized by the student during the student's first quarter of residency. The members of this committee will be chosen in consultation with the student's committee chairperson. The chair of the committee, in consultation with the student, will schedule a meeting at least once each quarter. More frequent meetings may be scheduled. The purposes of these meetings are:

- To determine that the student is making satisfactory progress in the degree program
- To evaluate the student's studio work

- To identify problems and to offer solutions.

A first-year review will consist of an evaluation of the student's work, completed or in progress, including review of non-studio coursework. MFA candidacy is contingent on successful progress in the following areas: studio work, knowledge of art history, and understanding of contemporary theory and criticism. Additional coursework may be required at the graduate committee's discretion.

Further details regarding the graduate committee process are provided in the graduate handbook.

Graduate Assistantships: Teaching or staff assistantships are awarded on a competitive basis. Assistants are granted by the dean of Graduate Studies and Research based upon the recommendation of the department chair.

Studio Space: Shared or individual studio workspace is provided to graduate students as available and will be allocated by the chair of the department.

Studio Project: In order to successfully complete ART 700, Studio Project, the MFA candidate must present a cohesive body of work completed in the last year of study as evidence of mastery in their area of concentration. This studio project is developed in consultation with the student's graduate committee and presented as a public exhibition. The studio project also requires students to present a written document that supports their body of work.

The written document must meet thesis format standards as required by the Office of Graduate Studies and Research.

Final Oral Examination: Upon completion of the studio project, the student will discuss and defend the project and the accompanying written document in an oral examination conducted by the graduate committee. Upon successful completion of the oral examination, the graduate committee will confer and render a determination of the success of the student's project.

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.

Master of Fine Arts in Art

Required Courses

- Art History, 400 level and above **Credits:** (12)
- Major Studio Concentration **Credits:** (40-56)
- Electives Outside Major Studio Concentration **Credits:** (12-24)

- ART 589 - Art Concepts and Criticism **Credits:** (3)
- ART 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-12) (Must be taken for 12 credits)

Total Credits: 90

College and Department Information

Art and Design Department
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

The Department of Aviation does not offer any graduate programs at this time.

Biological Sciences Department

College of the Sciences
Ellensburg
Science Building, 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

Program Description

The graduate program in biology is designed to provide training and expertise for those needing a terminal degree for entry-level biological science positions in state, federal, and tribal agencies, as well as for positions in private industry or teaching at the secondary or community college level. It serves other students by providing them with the skills and techniques required for further graduate study beyond the MS degree. Students considering further graduate study should work closely with their major advisor to design a program of coursework that meets the requirements for PhD programs. Graduate students in biology may tailor their program to emphasize a specific discipline within the biological sciences.

Admission

Admission is a two-step process. Applicants must first meet the general requirements for graduate study as determined by the Office of Graduate Studies and Research, and then the specific requirements of the Department of Biological Sciences. Items needed to enroll:

1. An undergraduate degree in biology or closely related field. Deficiencies in the student's undergraduate training as determined by the Department of Biological Sciences at the time of admission to the program must be removed without graduate credit during the first year of graduate study.
2. Students must submit GRE scores for the general test. Students applying to the masters in biology with a specialization in biomedical sciences may substitute MCAT scores for GRE scores.
3. International students for whom English is a second language must provide TOEFL scores to demonstrate English proficiency.
4. Students must arrange for a graduate faculty advisor in the Department of Biological Sciences to serve as their major advisor.

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, MS

Program Coordinator

James Johnson, PhD
Science Building, room 338J

Program Requirements

The coursework leading to the master of science in biological sciences will total at least 45 credits in the biological sciences and related subjects as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The individual's program of coursework and thesis problem will be developed in consultation with the student's major advisor and other members of the student's graduate committee. Two quarters in residence are required.

Examinations

Candidates must pass an oral examination covering topics in their area of specialization and coursework taken for their degree at least one quarter prior to graduation. The final examination will consist of a public seminar to present the results of the thesis or project research as well as an oral exam administered by the student's thesis committee covering aspects of the thesis research.

MS Biology Core Requirements

- BIOL 501 - Research Methods and Techniques **Credits: (4)**
- BIOL 502 - Research Proposal Presentations **Credits: (2)**
- BIOL 505 - Current Topics in Biology **Credits: (2)** (Must be taken for 6 credits.)
- BIOL 595 - Graduate Research **Credits: (1-10)** (Must be taken for 10 credits.)
- BIOL 602 - Research Presentations **Credits: (2)**
- BIOL 700 - Master's Thesis, Project Study, and/or Examination **Credits: (1-6)** (Must be taken for 6 credits.)

Total Core Credits: 30

Department-approved electives - Credits: 15

Total Credits: 45

College and Department Information

Biological Sciences Department
College of the Sciences

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

The graduate program in chemistry is tailored to satisfy individual student aspirations and is designed to provide knowledge, skills, and discovery within the chemical sciences. The program prepares candidates for professional employment in chemistry careers including industry, consulting, local, state and federal government, and for teaching at the community college or secondary level. Employed workers with a bachelor's degree may also seek

additional training in the chemical sciences to enhance or expand their career prospects. Additionally, the program provides a foundation for further graduate studies beyond the MS level in chemistry and related fields.

Graduate students in chemistry can focus their studies in any of the major areas of chemistry, including biochemistry, organic, physical, analytical and inorganic chemistry, and chemistry education. Emphasis in a specific area through appropriate courses and seminars is enhanced by requisite graduate research. Practical and collaborative internship experiences through industrial, governmental, academic research, or community college teaching partnerships are possible. The department utilizes state-of-the-art and fully equipped laboratory facilities with an array of modern instrumentation and computational capabilities. Furthermore, it operates a state-certified environmental testing laboratory.

The chemistry graduate program at Central Washington University has three different options for obtaining a MS in chemistry: traditional thesis option, project option, and a BS/MS degree option. The traditional thesis option allows students to take advanced classes from the traditional areas of chemistry and to engage in intensive research in a very specific area related to chemistry. Most students finish this degree track within two years of starting the program. Students who choose the thesis option are given priority over other students in the program for teaching assistantships. The project-based option requires more course work than the thesis option, but allows students to submit a project rather than a traditional thesis. The option also allows for some flexibility if students are already employed in areas related to chemistry. Projects they may be engaged in as part of their employment might be used towards the project MS degree in chemistry with approval from the department. The chair of the student's project committee must be a member of the department's graduate faculty. The final option is a BS/MS degree and is only open to students who obtain their BS from Central Washington University. The degree track allows students to obtain an MS in chemistry within one year after obtaining the BS degree and has a project component associated with the degree rather than a thesis. Students in this program would need to follow the course requirements for the project MS degree in Chemistry. Since the BS/MS program requires students to complete work in a very regimented fashion, students who are interested in this option are advised to discuss the option with their advisor and the graduate program coordinator by the quarter of their junior year.

Admission Requirements

Admission to CWU requires a bachelor's degree from an accredited institution. In addition, applicants must earn a minimum of a 3.0 grade point average (GPA) in all course work attempted in at least the last 90 quarter (60 semester) hours of recognized academic work. Admission decisions are based on a combination of factors: GPA, letters of recommendation from professors and others able to critically assess success in a graduate program, statement of purpose, standardized test scores, academic preparation for

work in the proposed field, and areas of research interests. Admission to the Chemistry Graduate Program requires an earned undergraduate degree in chemistry or a related field (equivalent to those offered at Central; see requirements for the BS and BA degrees in chemistry), and demonstrate a potential for superior scholarship. Applicants must provide GRE scores for the general test. If a chemistry background deficiency exists at the time of student admission, appropriate courses must be taken to fill these gaps during the first year of graduate study. International students for whom English is a second language must provide TOEFL or IELTS scores to demonstrate English proficiency.

Program Requirements

Program Requirements - Thesis option: The MS degree (thesis option) requires a minimum of 45 credits of graduate coursework and research study culminating with a thesis. Sixteen of these credits are research and thesis related (CHEM 595, CHEM 700). The remaining 29 credits are earned from coursework (a minimum of 18 at the 500 level or above). Of the 29 credits, students are required to take at least twelve core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 11 credits for elective courses. The first 2 credits of CHEM 589 consist of a research proposal written by the student and a one hour professional seminar based on this document. The research proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of proposed research, description of experimental approach, expected outcomes, a projected time line, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee members at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. The student must successfully complete these credits by the end of their third quarter in the graduate program. If the student has a situation that does not allow them to complete these credits by the end of their third quarter in the program they must meet with their graduate advisor and committee to work out an appropriate course of action. The second 2 credits of CHEM 589 are the final oral examination on the student's thesis project and are taken in the quarter the student defends. A written thesis has to be prepared and submitted to the committee members following procedures specified by the Office of Graduate Studies and Research. Candidates must also pass a final oral examination on their thesis project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the master of science requires two academic years and an intervening summer of study.

Program Requirements - Non-thesis MS option: The MS degree (non-thesis option) also requires a minimum of 45 credits of graduate coursework and a comprehensive

project or cooperative study in place of a research thesis. Ten of these credits are related to the project (CHEM 590/595) and two credits are required for Chem 700. The remaining 33 credits are earned from coursework. Of the 33 credits, students are required to take at least fifteen core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 12 credits for elective courses. The first 2 credits of CHEM 589 consist of a project proposal or literature-based project written by the student and a one hour professional seminar based on this document. The literature-based proposal will be mostly reserved for those students who are in industry and cannot give a public presentation due to intellectual property concerns. The project proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of the project, a comprehensive survey of the project, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. Students must submit their proposal and present their seminar before completion of their third quarter as a graduate student. The second 2 credits of CHEM 589 are the final oral examination on the written project or cooperative study. Candidates must also pass a final oral examination on their project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the MS in Chemistry requires two academic years and an intervening summer of study.

Core Courses: Twelve credits of chemistry courses at the 500-level are required for the thesis MS degree in chemistry, and fifteen credits for the non-thesis MS degree. Courses offered by the chemistry department include advanced biochemistry, biochemical toxicology, advanced analytical chemistry, organic reaction mechanisms, organic spectroscopy, advanced organic synthesis, medicinal chemistry, environmental chemistry, solid-state chemistry, analytical instrumentation, quantum and computational chemistry, and advanced physical chemistry.

Electives: Eleven credits of elective coursework at the 400 or 500 level are required for the MS thesis degree, or twelve for the non-thesis degree. Elective courses from chemistry and other departments (biology, geology, mathematics, physics, science education, business, and psychology, among others) are selected with advising from the thesis committee. These courses are selected to provide expertise in the fields of the individual student's academic interests and research focus and complement professional goals.

Graduate Committee: Before the end of the candidate's second quarter in the program and after consultation with members of the chemistry graduate faculty, the student will select a thesis advisor, to act as chair of the candidate's

graduate committee. The candidate, in consultation with the selected thesis advisor will assemble a three-member thesis graduate committee. Two members of the committee must be from the chemistry faculty.

Examination (thesis MS): Each candidate must prepare a written thesis that documents the methods, analysis, and results of the research they carried out during their graduate study. In addition, each candidate must pass a final oral examination. The review covering the student's thesis and coursework consists of a seminar open to the public followed by queries from the thesis committee.

Examination (non-thesis MS): Each candidate must prepare a final written report that documents the research project or cooperative work they carried out during their graduate study. In addition, each candidate must pass a final oral examination on all phases of the student's program. The review covering the student's written project and coursework consists of a seminar open to the public followed by queries from the thesis committee. The written documentation for the project is less thorough than for the thesis but the student is still expected to produce a significant research document with proper referencing and is expected to defend their research and methodology.

NOTE: Work for all MS in Chemistry options must be finished within seven years of the student's start date in the program otherwise all credits are considered null and void by the university and the student must start their course of study over again.

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, MS (Non-Thesis Option)

The graduate program in chemistry is tailored to satisfy individual student aspirations and is designed to provide knowledge, skills, and discovery within the chemical sciences. The program prepares candidates for professional employment in chemistry careers including industry, consulting, local, state and federal government, and for teaching at the community college or secondary level. Employed workers with a bachelor's degree may also seek additional training in the chemical sciences to enhance or expand their career prospects. Additionally, the program provides a foundation for further graduate studies beyond the MS level in chemistry and related fields.

Graduate students in chemistry can focus their studies in any of the major areas of chemistry, including biochemistry, organic, physical, analytical and inorganic

chemistry, and chemistry education. Emphasis in a specific area through appropriate courses and seminars is enhanced by requisite graduate research. Practical and collaborative internship experiences through industrial, governmental, academic research, or community college teaching partnerships are possible. The department utilizes state-of-the-art and fully equipped laboratory facilities with an array of modern instrumentation and computational capabilities. Furthermore, it operates a state-certified environmental testing laboratory.

The chemistry graduate program at Central Washington University has three different options for obtaining a MS in chemistry: traditional thesis option, project option, and a BS/MS degree option. The traditional thesis option allows students to take advanced classes from the traditional areas of chemistry and to engage in intensive research in a very specific area related to chemistry. Most students finish this degree track within two years of starting the program. Students who choose the thesis option are given priority over other students in the program for teaching assistantships. The project-based option requires more course work than the thesis option, but allows students to submit a project rather than a traditional thesis. The option also allows for some flexibility if students are already employed in areas related to chemistry. Projects they may be engaged in as part of their employment might be used towards the project MS degree in chemistry with approval from the department. The chair of the student's project committee must be a member of the department's graduate faculty. The final option is a BS/MS degree and is only open to students who obtain their BS from Central Washington University. The degree track allows students to obtain an MS in chemistry within one year after obtaining the BS degree and has a project component associated with the degree rather than a thesis. Students in this program would need to follow the course requirements for the project MS degree in Chemistry. Since the BS/MS program requires students to complete work in a very regimented fashion, students who are interested in this option are advised to discuss the option with their advisor and the graduate program coordinator by the quarter of their junior year.

Admission Requirements

Admission to CWU requires a bachelor's degree from an accredited institution. In addition, applicants must earn a minimum of a 3.0 grade point average (GPA) in all course work attempted in at least the last 90 quarter (60 semester) hours of recognized academic work. Admission decisions are based on a combination of factors: GPA, letters of recommendation from professors and others able to critically assess success in a graduate program, statement of purpose, standardized test scores, academic preparation for work in the proposed field, and areas of research interests. Admission to the Chemistry Graduate Program requires an earned undergraduate degree in chemistry or a related field (equivalent to those offered at Central; see requirements for the BS and BA degrees in chemistry), and demonstrate a potential for superior scholarship. Applicants must provide GRE scores for the general test. If a chemistry background deficiency exists at the time of student admission,

appropriate courses must be taken to fill these gaps during the first year of graduate study. International students for whom English is a second language must provide TOEFL or IELTS scores to demonstrate English proficiency.

Program Requirements

Program Requirements - Thesis option: The MS degree (thesis option) requires a minimum of 45 credits of graduate coursework and research study culminating with a thesis. Sixteen of these credits are research and thesis related (CHEM 595, CHEM 700). The remaining 29 credits are earned from coursework (a minimum of 18 at the 500 level or above). Of the 29 credits, students are required to take at least twelve core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 11 credits for elective courses. The first 2 credits of CHEM 589 consist of a research proposal written by the student and a one hour professional seminar based on this document. The research proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of proposed research, description of experimental approach, expected outcomes, a projected time line, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee members at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. The student must successfully complete these credits by the end of their third quarter in the graduate program. If the student has a situation that does not allow them to complete these credits by the end of their third quarter in the program they must meet with their graduate advisor and committee to work out an appropriate course of action. The second 2 credits of CHEM 589 are the final oral examination on the student's thesis project and are taken in the quarter the student defends. A written thesis has to be prepared and submitted to the committee members following procedures specified by the Office of Graduate Studies and Research. Candidates must also pass a final oral examination on their thesis project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the master of science requires two academic years and an intervening summer of study.

Program Requirements - Non-thesis MS option: The MS degree (non-thesis option) also requires a minimum of 45 credits of graduate coursework and a comprehensive project or cooperative study in place of a research thesis. Ten of these credits are related to the project (CHEM 590/595) and two credits are required for CHEM 700. The remaining 33 credits are earned from coursework. Of the 33 credits, students are required to take at least fifteen core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits

of seminar (CHEM 589 taken twice) are also required. This leaves 12 credits for elective courses. The first 2 credits of CHEM 589 consist of a project proposal or literature-based project written by the student and a one hour professional seminar based on this document. The literature-based proposal will be mostly reserved for those students who are in industry and cannot give a public presentation due to intellectual property concerns. The project proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of the project, a comprehensive survey of the project, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. Students must submit their proposal and present their seminar before completion of their third quarter as a graduate student. The second 2 credits of CHEM 589 are the final oral examination on the written project or cooperative study. Candidates must also pass a final oral examination on their project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the MS in Chemistry requires two academic years and an intervening summer of study.

Core Courses: Twelve credits of chemistry courses at the 500-level are required for the thesis MS degree in chemistry, and fifteen credits for the non-thesis MS degree. Courses offered by the chemistry department include advanced biochemistry, biochemical toxicology, advanced analytical chemistry, organic reaction mechanisms, organic spectroscopy, advanced organic synthesis, medicinal chemistry, atmospheric chemistry, solid-state chemistry, quantum and computational chemistry, and advanced physical chemistry.

Electives: Eleven credits of elective coursework at the 400 or 500 level are required for the MS thesis degree, or twelve for the non-thesis degree. Elective courses from chemistry and other departments (biology, geology, mathematics, physics, science education, business, and psychology, among others) are selected with advising from the thesis committee. These courses are selected to provide expertise in the fields of the individual student's academic interests and research focus and complement professional goals.

Graduate Committee: Before the end of the candidate's second quarter in the program and after consultation with members of the chemistry graduate faculty, the student will select a thesis advisor, to act as chair of the candidate's graduate committee. The candidate, in consultation with the selected thesis advisor will assemble a three-member thesis graduate committee. Two members of the committee must be from the chemistry faculty.

Examination (thesis MS): Each candidate must prepare a written thesis that documents the methods, analysis, and results of the research they carried out during their graduate

study. In addition, each candidate must pass a final oral examination. The review covering the student's thesis and coursework consists of a seminar open to the public followed by queries from the thesis committee.

Examination (non-thesis MS): Each candidate must prepare a final written report that documents the research project or cooperative work they carried out during their graduate study. In addition, each candidate must pass a final oral examination on all phases of the student's program. The review covering the student's written project and coursework consists of a seminar open to the public followed by queries from the thesis committee. The written documentation for the project is less thorough than for the thesis but the student is still expected to produce a significant research document with proper referencing and is expected to defend their research and methodology.

NOTE: Work for all MS in Chemistry options must be finished within seven years of the student's start date in the program otherwise all credits are considered null and void by the university and the student must start their course of study over again.

Required Courses

Core Credits: 17

- **15 credits of chemistry courses at the 500-level are required**
- CHEM 503 - Introduction to Research **Credits:** (1) (Must be taken during the first year for 1 credit.)
- CHEM 505 - Current Topics in Chemistry **Credits:** (1) (Must be taken for 1 credit.)

Seminar Credits: 4

- CHEM 589 - Graduate Student Seminar **Credits:** (2)
Must be taken for 4 credits.
- Two credits consist of a project proposal or literature-based project
- Two credits consist of a final oral examination on the written project or cooperative study
Refer to the program requirements for complete details.

Comprehensive Project or Cooperative Study Credits: 12

- Total credits between CHEM 590 and CHEM 595 must equal 10 credits.
- CHEM 590 - Cooperative Education **Credits:** (1-5)
 - CHEM 595 - Graduate Research **Credits:** (1-10)
 - CHEM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 2 credits.)

Department-Approved Electives Credits: 12

Electives to be selected by advisement.

Total Credits: 45

College and Department Information

Chemistry Department
College of the Sciences

Chemistry, MS (Thesis Option)

The graduate program in chemistry is tailored to satisfy individual student aspirations and is designed to provide knowledge, skills, and discovery within the chemical sciences. The program prepares candidates for professional employment in chemistry careers including industry, consulting, local, state and federal government, and for teaching at the community college or secondary level. Employed workers with a bachelor's degree may also seek additional training in the chemical sciences to enhance or expand their career prospects. Additionally, the program provides a foundation for further graduate studies beyond the MS level in chemistry and related fields.

Graduate students in chemistry can focus their studies in any of the major areas of chemistry, including biochemistry, organic, physical, analytical and inorganic chemistry, and chemistry education. Emphasis in a specific area through appropriate courses and seminars is enhanced by requisite graduate research. Practical and collaborative internship experiences through industrial, governmental, academic research, or community college teaching partnerships are possible. The department utilizes state-of-the-art and fully equipped laboratory facilities with an array of modern instrumentation and computational capabilities. Furthermore, it operates a state-certified environmental testing laboratory.

The chemistry graduate program at Central Washington University has three different options for obtaining a MS in chemistry: traditional thesis option, project option, and a BS/MS degree option. The traditional thesis option allows students to take advanced classes from the traditional areas of chemistry and to engage in intensive research in a very specific area related to chemistry. Most students finish this degree track within two years of starting the program. Students who choose the thesis option are given priority over other students in the program for teaching assistantships. The project-based option requires more course work than the thesis option, but allows students to submit a project rather than a traditional thesis. The option also allows for some flexibility if students are already employed in areas related to chemistry. Projects they may be engaged in as part of their employment might be used towards the project MS degree in chemistry with approval from the department. The chair of the student's project committee must be a member of the department's graduate

faculty. The final option is a BS/MS degree and is only open to students who obtain their BS from Central Washington University. The degree track allows students to obtain an MS in chemistry within one year after obtaining the BS degree and has a project component associated with the degree rather than a thesis. Students in this program would need to follow the course requirements for the project MS degree in Chemistry. Since the BS/MS program requires students to complete work in a very regimented fashion, students who are interested in this option are advised to discuss the option with their advisor and the graduate program coordinator by the quarter of their junior year.

Admission Requirements

Admission to CWU requires a bachelor's degree from an accredited institution. In addition, applicants must earn a minimum of a 3.0 grade point average (GPA) in all course work attempted in at least the last 90 quarter (60 semester) hours of recognized academic work. Admission decisions are based on a combination of factors: GPA, letters of recommendation from professors and others able to critically assess success in a graduate program, statement of purpose, standardized test scores, academic preparation for work in the proposed field, and areas of research interests. Admission to the Chemistry Graduate Program requires an earned undergraduate degree in chemistry or a related field (equivalent to those offered at Central; see requirements for the BS and BA degrees in chemistry), and demonstrate a potential for superior scholarship. Applicants must provide GRE scores for the general test. If a chemistry background deficiency exists at the time of student admission, appropriate courses must be taken to fill these gaps during the first year of graduate study. International students for whom English is a second language must provide TOEFL or IELTS scores to demonstrate English proficiency.

Program Requirements

Program Requirements - Thesis option: The MS degree (thesis option) requires a minimum of 45 credits of graduate coursework and research study culminating with a thesis. Sixteen of these credits are research and thesis related (CHEM 595, CHEM 700). The remaining 29 credits are earned from coursework (a minimum of 18 at the 500 level or above). Of the 29 credits, students are required to take at least twelve core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 11 credits for elective courses. The first 2 credits of CHEM 589 consist of a research proposal written by the student and a one hour professional seminar based on this document. The research proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of proposed research, description of experimental approach, expected outcomes, a projected time line, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit).

The document is to be submitted to committee members at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. The student must successfully complete these credits by the end of their third quarter in the graduate program. If the student has a situation that does not allow them to complete these credits by the end of their third quarter in the program they must meet with their graduate advisor and committee to work out an appropriate course of action. The second 2 credits of CHEM 589 are the final oral examination on the student's thesis project and are taken in the quarter the student defends. A written thesis has to be prepared and submitted to the committee members following procedures specified by the Office of Graduate Studies and Research. Candidates must also pass a final oral examination on their thesis project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the master of science requires two academic years and an intervening summer of study.

Program Requirements - Non-thesis MS option: The MS degree (non-thesis option) also requires a minimum of 45 credits of graduate coursework and a comprehensive project or cooperative study in place of a research thesis. Ten of these credits are related to the project (CHEM 590/595) and two credits are required for Chem 700. The remaining 33 credits are earned from coursework. Of the 33 credits, students are required to take at least fifteen core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 12 credits for elective courses. The first 2 credits of CHEM 589 consist of a project proposal or literature-based project written by the student and a one hour professional seminar based on this document. The literature-based proposal will be mostly reserved for those students who are in industry and cannot give a public presentation due to intellectual property concerns. The project proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of the project, a comprehensive survey of the project, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. Students must submit their proposal and present their seminar before completion of their third quarter as a graduate student. The second 2 credits of CHEM 589 are the final oral examination on the written project or cooperative study. Candidates must also pass a final oral examination on their project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the MS in Chemistry requires two academic years and an intervening summer of study.

Core Courses: Twelve credits of chemistry courses at the 500-level are required for the thesis MS degree in

chemistry, and fifteen credits for the non-thesis MS degree. Courses offered by the chemistry department include advanced biochemistry, biochemical toxicology, advanced analytical chemistry, organic reaction mechanisms, organic spectroscopy, advanced organic synthesis, medicinal chemistry, atmospheric chemistry, solid-state chemistry, quantum and computational chemistry, and advanced physical chemistry.

Electives: Eleven credits of elective coursework at the 400 or 500 level are required for the MS thesis degree, or twelve for the non-thesis degree. Elective courses from chemistry and other departments (biology, geology, mathematics, physics, science education, business, and psychology, among others) are selected with advising from the thesis committee. These courses are selected to provide expertise in the fields of the individual student's academic interests and research focus and complement professional goals.

Graduate Committee: Before the end of the candidate's second quarter in the program and after consultation with members of the chemistry graduate faculty, the student will select a thesis advisor, to act as chair of the candidate's graduate committee. The candidate, in consultation with the selected thesis advisor will assemble a three-member thesis graduate committee. Two members of the committee must be from the chemistry faculty.

Examination (thesis MS): Each candidate must prepare a written thesis that documents the methods, analysis, and results of the research they carried out during their graduate study. In addition, each candidate must pass a final oral examination. The review covering the student's thesis and coursework consists of a seminar open to the public followed by queries from the thesis committee.

Examination (non-thesis MS): Each candidate must prepare a final written report that documents the research project or cooperative work they carried out during their graduate study. In addition, each candidate must pass a final oral examination on all phrases of the student's program. The review covering the student's written project and coursework consists of a seminar open to the public followed by queries from the thesis committee. The written documentation for the project is less thorough than for the thesis but the student is still expected to produce a significant research document with proper referencing and is expected to defend their research and methodology.

NOTE: Work for all MS in Chemistry options must be finished within seven years of the student's start date in the program otherwise all credits are considered null and void by the university and the student must start their course of study over again.

Required Courses

Core Credits: 14

- **12 credits of chemistry courses at the 500-level are required**
- CHEM 503 - Introduction to Research **Credits:** (1) (Must be taken during the first year for 1 credit.)
- CHEM 505 - Current Topics in Chemistry **Credits:** (1) (Must be taken for 1 credit.)

Seminar Credits: 4

- CHEM 589 - Graduate Student Seminar **Credits:** (2)
Must be taken for 4 credits.
- Two credits consist of a research proposal
- Two credits consist of a final oral examination on the student's thesis project
Refer to the program requirements for complete details.

Research and Thesis Credits: 16

- CHEM 595 - Graduate Research **Credits:** (1-10) (Must be taken for 10 credits.)
- CHEM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits.)

Department-Approved Electives Credits: 11

Electives to be selected by advisement.

Total Credits: 45

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
Chair**

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 does not offer any graduate programs at this time.

Computer Science Department

College of the Sciences
Ellensburg
Hebeler Hall, room 219
Mail Stop 7520
509-963-1495
Fax: 509-963-1449
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

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.

Computational Science, MS

Program Objectives and Description

Computational Science is the field of study concerned with constructing mathematical models and quantitative analysis techniques and using computers to analyze and solve scientific problems. In practical use, it is typically the application of computer simulation and other forms of computation to problems in various scientific disciplines. Computational Science has become critical to scientific leadership, economic competitiveness, and national security.

CWU will offer this masters program with the aim to prepare students for professional computational science careers or to pursue a doctoral degree. The computational core of the program will be materialized by a modular and flexible inter-departmental collaboration. Professional computational scientists possess a broad grounding in computing related areas, mathematics, and sophistication in their area of concentration. The program promotes the expansion and strengthening of the collaborative educational and research efforts across the College of the Sciences.

The program will be entirely delivered at the CWU Ellensburg campus and will be a combination of traditional courses, seminar, and research work amounting to a total of

45 credits. Regular attendance to research seminars offered in the various departments involved in the program will also be required. Students will complete 22 credits of core course work in computer science and 5 credits of thesis/capstone project work. Additionally, students will complete at least 8 credits of elective coursework in their selected area(s) of expertise. A full-time student has to take at least 10 credits per quarter. A typical break down for a student in the program would be:

- 22 credits core courses
- 18 credit electives, including graduate research
- 5 credits master's thesis/project

Students will have to complete the core course work of the program:

- Advanced data structures and algorithms
- High-performance computing
- Advanced algorithms for scientific computing
- Computational Statistics
- Scientific Computing

Since research is a key part of student development in this program, the rest of the work in the master of computational science will focus on a research project with an advisor in their selected area of expertise. Alternatively, and with the approval of the Computational Science Program Committee, students will have the option to do research, or work on a project in partner of the program. Regular attendance to research seminars will also be required.

Students who are part of the program will be required to do a master's thesis or a project at the end of the program. The two alternatives (thesis or project) mean that students may choose between a research and a professional orientation.

The Thesis/Project Committee, having at least three members, will be chaired by a graduate faculty from the Computer Science Department. Interdisciplinary membership in the graduate committee is strongly recommended. For this program, the graduate committee will be generally interdisciplinary.

Each core course will be offered one time per year. The elective courses will be generally offered every other year. Students will specialize in one of the following areas:

- Computer Science
- Data Science
- Machine Learning and Cognitive Computing
- Cybersecurity
- High Performance Computing
- Bioinformatics
- Computational Chemistry
- Computational Statistics

Admission Requirements

To be considered, an applicants to this graduate program must have been awarded (or about to be awarded) a 4-year bachelor's degree, with a minimum 3.00 GPA.

The target audience will consist primarily of computer science graduates (i.e., graduates with a major in computer science). We also target graduates with a minor in computer science and a major in one of the application domains (mathematics, biology, chemistry, physics, and geology). On a case by case basis, graduates from the application domains, without a minor in computer science, may be also accepted, if they have enough credits from computer related courses (computer programming, algorithms and data structures, and computer organization).

Required Courses Credits: 27

- CS 528 - Advanced Data Structures and Algorithms **Credits: (4)**
- CS 529 - Advanced Algorithms for Scientific Computing **Credits: (4)**
- CS 530 - High-Performance Computing **Credits: (4)**
- CS 565 - Scientific Computing **Credits: (4)**
- CS 567 - Computational Statistics **Credits: (4)**
- CS 589 - Research Seminar **Credits: (2)**
- CS 700 - Thesis/Project **Credits: (1-5)** (Must be taken for 5 credits.)

Department-Approved Electives Credits: 18

(to be selected by advisement)

- CS 540 - Algorithms for Biological Data Analysis **Credits: (4)**
- CS 545 - Data and Information Visualization **Credits: (4)**
- CS 557 - Computational Intelligence and Machine Learning **Credits: (4)**
- CS 573 - Parallel Computing **Credits: (4)**
- CS 595 - Graduate Research **Credits: (1-10)**
- CS 596 - Individual Study **Credits: (1-6)**
- With department approval, students may use 400 level CS courses, or related graduate level courses from other disciplines to fulfill the elective credit requirement.

Total Credits: 45

College and Department Information

Computer Science Department
College of the Sciences

Cultural and Environmental Resource Management Program

College of the Sciences
Ellensburg
Fax: 509-963-1047
www.cwu.edu/resource-management
See website for how this program may be used for educational and career purposes

Faculty

Program Coordinators

Natural Resources

Jennifer Lipton, PhD
Department of Geography
Dean Hall, room 308
509-963-1164
Jennifer.Lipton@cwu.edu

Cultural Resources

Patrick McCutcheon, PhD
Department of Anthropology
Dean Hall, room 340
509-963-2075
Patrick.McCutcheon@cwu.edu

Professors

Kevin Archer, PhD, geography, culture and globalization, social production of nature
Kathleen Barlow, PhD, cultural anthropology, museum studies, culture and politics of natural resource extraction, ethnographic methods
Daniel D. Beck, PhD, biological sciences, ecology, behavior, and physiology of reptiles in the Pacific NW, southwestern USA, and western Mexico
Lisa Ely, PhD, geological sciences, fluvial geomorphology, quaternary geology, paleohydrology
Kristina A. Ernest, PhD, biological sciences, community ecology, plant-herbivore interactions, ecology of small animals
Anthony Gabriel, PhD, geography, resource analysis, physical geography, shoreline inventory and assessment, aquatic systems
Carey Gazis, PhD, geological sciences, geochemistry of fluid-rock interaction in the Earth's crust
Steven Hackenberger, PhD, anthropology, archaeology, paleoecology, cultural resource management, Columbia Plateau
Daniel Herman, PhD, history, 19th century American West, American Indian history, American cultural history
Robert Hickey, PhD, geography, GIS remote sensing, environment, geology, erosion modeling, Australia
Paul W. James, PhD, biological sciences, fish ecology, stream ecology
Robert Kuhlken, PhD, geography, cultural geography, urban and regional planning, environmental literature
Karl Lillquist, PhD, geography, geomorphology, soils,

environmental change in arid lands and mountains, airphoto analysis, field methods
Patrick Lubinski, PhD, anthropology, archaeology, cultural resource management, zooarchaeology
Patrick McCutcheon, PhD, anthropology, archaeology, geoarchaeology, cultural resource management
Lene Pedersen, PhD, cultural anthropology, ecological, political, and visual anthropology, natural resources, local governance, Southeast Asia, Circumpolar North, East Africa
Lori Sheeran, PhD, anthropology, biological anthropology, primate ecology, China
Rex Wirth, PhD, political science, resource policy in developing nations

Associate Professors

Mark Auslander, PhD, anthropology, sociocultural anthropology, museum anthropology, art and aesthetics, meaning in the material world, symbolic mediation, ritual and performance theory, historical anthropology, race and class, engaged anthropology, slavery studies, contemporary African and Diasporic art
John Bowen, PhD, geography, transportation, economic development, quantitative methods, Southeast Asia
Kenneth A. Cohen, PhD, recreation and tourism, sustainable tourism, recourse-based recreation, community development, community capacity building and strategic planning
Tom R. Cottrell, PhD, biological sciences, plant ecology in areas of fire disturbance, rare plant habitats
Jennifer Lipton, PhD, geography, cultural and political ecology, landscape ecology, climate change, geospatial techniques
Joseph Lorenz, PhD, molecular anthropology, primates, human mtDNA and aDNA studies
Craig Revels, PhD, geography, cultural and historical geography, cultural ecology
R. Steven Wagner, PhD, biological sciences, amphibian decline, genetics, herpetology, conservation biology, road ecology, primate behavior
Charles Wassell, PhD, economics, mathematical modeling of economic issues with policy implications

Assistant Professors

Hope Amason, PhD, tourism studies, urban anthropology, political economy, museum anthropology, sociocultural anthropology
Elvin Delgado, PhD, geography, energy and capitalism, political economy and nature, critical resource geography and political ecology
Pamela McMullin-Messier, PhD, demography, collective action, environmental justice, hazards, and gender
Michael Pease, PhD, geography, water resource management, environmental law, resource allocation
Tony Sipic, PhD, economics, environmental economics, political economy, industrial organization
Megan Walsh, PhD, geography, biogeography, paleoecology, climate change, fire history

Faculty from other departments participate in the program as graduate committee members.

Resource Management, MS

Program: The program is interdisciplinary, emphasizing understanding of problems encountered in the management of both natural and cultural resources. It includes a basic core of 27 credits in resource management, courses in areas of interest and a specialty track in either natural resource areas (management of land, water, biotic, atmospheric, and energy resources) or cultural resources management (ethnographic and archaeological sites and materials, historic properties, and archives). An internship is recommended. Students must complete at least 60 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The course of study is selected by advisement before completing 25 credits.

Program Admission Requirements: In addition to general master's degree guidelines for admission to master's programs, applicants for admission must have the following qualifications:

1. A solid background in a discipline closely related to the resources they expect to manage. Normally, a bachelor's degree is required in a technical field such as one of the biological, Earth, or physical sciences, geography, engineering, archaeology, ethnology, history, or architecture. In some cases work experience may be accepted in lieu of a technical major. Before admission, program faculty will evaluate the academic coursework and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate work which need to be overcome before entrance into the program.
2. A high proficiency in written and spoken English as well as potential for post-graduate study and research. Evidence of proficiency and potential may include: GRE scores, samples of previous writing, letters of recommendation, an interview.
3. A good background in basic statistics (the equivalent of two quarters of undergraduate statistics), knowledge of microeconomic principles, and some knowledge of computer systems (the equivalent of a one-quarter undergraduate course).

Admission to the program and continuation in it may be conditional on the applicant's satisfactory completion of remedial courses. Such courses will not count toward the program credit requirement but in some cases they may be taken after admission to the program.

Application Deadline and Materials: students must comply with all deadlines and procedures for "applying to CWU" in the graduate admissions section of this catalog.

Additional Information

Graduate Committee: The student will have at least a three-member graduate committee, to be selected in consultation with the program coordinator and the dean of Graduate Studies and Research.

Final Examination: Each candidate must pass a final oral examination on all phases of his or her program including the thesis and related coursework.

Thesis: Each candidate must successfully complete a thesis that involves original research undertaken within a literature 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/resource-management or by contacting the department directly.

Cultural and Environmental Resource Management, MS

Program: The program is interdisciplinary, emphasizing understanding of problems encountered in the management of both natural and cultural resources. It includes a basic core of 27 credits in resource management, courses in areas of interest and a specialty track in either natural resource areas (management of land, water, biotic, atmospheric, and energy resources) or cultural resources management (ethnographic and archaeological sites and materials, historic properties, and archives). An internship is recommended. Students must complete at least 60 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The course of study is selected by advisement before completing 25 credits.

Program Admission Requirements: In addition to master's degree guidelines for admission to master's programs, applicants for admission must have the following qualifications:

1. A solid background in a discipline closely related to the resources they expect to manage. Normally, a bachelor's degree is required in a technical field such as one of the biological, Earth, or physical sciences, geography, engineering, archaeology, ethnology, history, or architecture. In some cases work experience may be accepted in lieu of a technical major. Before admission, program faculty will evaluate the academic coursework and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate work which need to be overcome before entrance into the program.
2. A high proficiency in written and spoken English as well as potential for post-graduate study and research. Evidence of proficiency and potential

- may include: GRE scores, samples of previous writing, letters of recommendation, an interview.
3. A good background in basic statistics (the equivalent of two quarters of undergraduate statistics), knowledge of microeconomic principles, and some knowledge of computer systems (the equivalent of a one-quarter undergraduate course).

Admission to the program and continuation in it may be conditional on the applicant's satisfactory completion of remedial courses. Such courses will not count toward the program credit requirement but in some cases they may be taken after admission to the program.

Application Deadline and Materials: students must comply with all deadlines and procedures for "applying to CWU" in the graduate admissions section of this catalog.

Required Core Courses

- ECON 462 - Economics of Energy, Resources and Environment **Credits:** (5)
- REM 501 - Introduction to Resource Management **Credits:** (4)
- REM 502 - Policy and Law in Resource Management **Credits:** (5)
- REM 505 - Introduction to Graduate Research **Credits:** (3)
- REM 506 - Resource Management Colloquium **Credits:** (1) (Must be taken for 2 credits)
- REM 522 - Resource Analysis **Credits:** (5)
- REM 562 - Issues and Conflicts in Resource Management **Credits:** (3)

Subtotal Credits: 27

Additional Courses

- Electives (to be selected by advisement): Natural Resource or Cultural Resource Management **Credits:** 27
- REM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Total Credits: 60

Additional Information

Graduate Committee: The student will have at least a three-member graduate committee, to be selected in consultation with the program coordinator and the dean of Graduate Studies and Research.

Final Examination: Each candidate must pass a final oral examination on all phases of his or her program including the thesis and related coursework.

Thesis: Each candidate must successfully complete a thesis

that involves original research undertaken within a literature context.

College and Department Information

Cultural and Environmental Resource Management Program
College of the Sciences

Curriculum, Supervision, and Educational Leadership Department

College of Education and Professional Studies
School of Education
Ellensburg
Black Hall, room 214-12
Mail Stop 7410
509-963-1448

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

Programs included in the Curriculum, Supervision and Educational Leadership department are masters of school administration and instructional leadership, residency principal certification, program administrator certification, program administrator/special education certification, library media endorsement, mentoring coaching certificate and Master Teacher.

The master of education school administration or master of education an instructional leadership degree programs prepare teachers for the residency principal's certificate or program administrator's certificate. A student shall complete 45 credits (school administrator or instructional leadership) in an approved course of study to be developed in consultation with the graduate advisor. There are also certificate programs available.

The Library Media Program qualifies students to become library media specialists for K-12 schools in Washington. A student shall complete 27 credits of required courses. Candidates must take and pass the WEST-E in library media prior to receiving endorsement.

Professional certification school administrator is for education administrators to renew their residency Principal or Program Administrator certificates (OSPI requirement).

The mentoring/coaching certificate is designed for teachers in supporting colleagues through mentoring.

The Master Teacher, MEd degree program is designed primarily for elementary and secondary school teachers and school service personnel. Since the program may also prepare the student for community college teaching and for advanced study, the student should seek advice from program advisors. For information directly regarding the Alternative Pathways to Teaching Program please visit www.cwu.edu/teacher-certification/about.

Admission Requirements

In addition to the university guidelines concerning admission to graduate degree programs, students desiring admission to any of the graduate programs must meet departmental requirements. Members of the department will review the student's application materials and, if deemed necessary, may meet with the student before a recommendation for admission can be made.

In addition to general requirements for admission into Central Washington University, students desiring admission to the mentoring/coaching certificate must have

valid WA state teaching certificate and at least three years of current teaching experience.

Elective Curriculum, Supervision, and Educational Leadership Courses

The candidate must choose at least six credits from the following: EDF 501, Educational Foundations; EDF 502, History of Education; EDF 503, Philosophy of Education; EDF 504, Advanced Educational Statistics; EDF 505, Educational Measurement for Teachers; EDF 506, Education Futurism; EDF 508, Comparative Education; EDF 567, Educational Change; PSY 552, Advanced Human Growth and Development; PSY 559, Advanced Educational Psychology. (Only one of PSY 552 or PSY 559 may be included to meet the foundations requirement). Related courses may be substituted with permission of the student's graduate advisor or committee chair, the chair of the department, and the dean of Graduate Studies and Research.

Elective Area of Emphasis Courses

Students should select one or more areas of emphasis in consultation with their graduate advisor or committee chair. Areas of emphasis must be approved by the department chair on the Course of Study form available from the Office of Graduate Studies. Students should obtain Course of Study approval early in their programs to assure that all courses taken will be accepted.

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.

Higher Education, MEd

Master of Education, Higher Education

The degree program is designed for candidates with an interest in working in administrative positions in institutions of higher education, civic organizations, non-profit organizations, national government organizations, of the social sector. Program coursework provides students with a strong grounding in leadership/management/organizational development with particular attention to the higher education context.

Program Requirements

Incoming candidates are expected to meet the requirement for admission to the graduate programs at Central Washington University. To graduate with the M.Ed. in Higher Education, the Office of Graduate Studies and research requires a cumulative grade-point average of at least 3.0 in the courses listed in the student's coursework.

Course Requirements

Students will not be allowed to enroll in any of the courses

until they have been admitted into the master of Higher Education Program.

Required Courses

- EDHE 510 - History of Higher Education **Credits:** (3)
- EDHE 511 - Research in Higher Education **Credits:** (4)
- EDHE 512 - Diversity Leadership Management **Credits:** (3)
- EDHE 515 - College Student Development **Credits:** (3)
- EDHE 517 - Organizational Dynamics **Credits:** (3)
- EDHE 518 - Program Evaluation and Assessment **Credits:** (3)
- EDHE 525 - Organizational Communication in Higher Education **Credits:** (3)
- EDHE 572 - Leadership and Supervision in Higher Education **Credits:** (3)
- EDHE 581 - Finance in Colleges and Universities **Credits:** (4)
- EDHE 589 - Higher Education Law **Credits:** (4)
- EDAD 596 - Individual Study **Credits:** (1-6) (Must be taken for 3 credits)
- EDAD 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6) (Must be taken for 3 credits)

Department-approved electives - Credits: (6)

Choose from the following:

- EDHE 520 - Program Administration in Adult Education **Credits:** (3)
- EDHE 560 - The American Community College Student **Credits:** (3)
- EDHE 561 - Student Success in American Higher Education **Credits:** (3)

Total Credits: 45

College and Department Information

Curriculum, Supervision, and Educational Leadership
Department
College of Education and Professional Studies

Library Media Certificate

The Library Media Certificate is to endorse students as Library Media Specialists for K-12 schools in Washington State. A student shall complete 28-31 credits of required courses. Candidates must take and pass the WEST-E in library media prior to receiving this certificate.

This is an intensive eight-week, cohort taught over two summers (four weeks the first summer, four weeks the second summer) with a nine-month practicum to take place between the first and second summer. Courses can also be taken online.

Admission

The Library Media Certificate is designed for teachers interested in adding a Library Media Endorsement to their teaching certificate. Students desiring admission to the Library Media Certificate must have a valid WA state teaching certificate and at least one year of current teaching experience.

Required Courses

- EDLM 510 - Introduction to Library Media Issues **Credits:** (3)
- EDLM 514 - Technology Tools for the Library **Credits:** (3)
- EDLM 516 - Application of Technology Resources **Credits:** (3)
- EDLM 526 - Instructional Methods in the Library **Credits:** (3)
- EDLM 536 - Survey of Children's and Young Adult Literature **Credits:** (3)
- EDLM 548 - Collection Development/Library Media **Credits:** (3)
- EDLM 558 - Cataloging and Classification for Library Media **Credits:** (3)
- EDLM 568 - Research and Information Fluency **Credits:** (3)
- EDLM 578 - Administration of Library Media Programs **Credits:** (3)
- EDLM 592 - Library Media Experience **Credits:** (1-4)

Total Credits: 28-31

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

Master Teacher, MEd

Program Description

The Master Teacher is a program of advanced preparation for classroom teachers intending to become teacher scholars and to assume positions of leadership within their schools with respect to the development of curriculum, instructional strategies, and related classroom concerns.

The program is intended to allow current teachers to focus on areas of emphasis in the P-12 classroom settings.

Prerequisite: A minimum of one year of contracted teaching experience in a P-12 classroom setting is required for admission to the Master Teacher Program. One of the three required recommendations for admission to the Master Teacher Program must come from the applicant's current or most recent principal or designee.

Program: The student will complete at least 48 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research and Continuing Education. The development of a course of study most appropriate to the professional goals and purposes of each individual student must be completed and approved by a program advisor or committee chair upon the completion of 18 credits.

Required Courses

- EDBL, EDCS, EDEL, or EDF 700 - Thesis (or option) **Credits:** (6)
- Educational Foundations and Research electives **Credits:** (6)
(See elective Educational Foundations courses under general information)
- Area of emphasis electives **Credits:** (29)
(See elective area of emphasis courses under general information)
- EDF 507 - Studies and Problems in Intercultural Education **Credits:** (3)
- EDF 510 - Educational Research and Development **Credits:** (4)

Total Credits: 48

College and Department Information

Curriculum, Supervision, and Educational Leadership
Department
College of Education and Professional Studies

Mentoring/Coaching Certificate

This program is to prepare current teachers/school leaders to demonstrate strategic, instructional supervision and leadership in mentoring/coaching colleagues, school staff, and teacher candidates.

Program Admission Requirements

In addition to general requirements for admission into Central Washington University, students desiring admission to the mentoring/coaching certificate must have valid WA state teaching certificate and at least three years of current teaching experience.

Required Courses

- EDAD 567 - Instructional Mentoring **Credits:** (4)
- EDAD 568 - Instructional Decision Making **Credits:** (3)
- EDAD 569 - Coaching and Observation (Put on reserve 9/16/16) **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)

Total Credits: 15

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

Residency Principal's Certificate

This certification program is available to individuals who already possess a master's degree or who are currently working on a MEd in school administration. Three years of successful, contracted teaching experience in a K-12 educational setting within the most recent five years is required before admission to the program is granted. Contact the Department of Curriculum, Supervision, and Educational Leadership for details and admission information.

Students will not be allowed to register for EDAD courses until they have been fully admitted to either the master's degree program or the administrator certificate program. See your advisor if you have completed recent graduate coursework in Intercultural Education (i.e., EDF 507).

Required Courses

- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 579 - School Personnel **Credits:** (4)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 582 - School Curriculum **Credits:** (4)
- EDAD 583 - School and Community **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 586 - The Principalship **Credits:** (4)
- EDAD 589 - School Law **Credits:** (4)
- EDAD 692 - Pre-autumn Internship **Credits:** (3)
- EDAD 693 - Intern School Administration **Credits:** (3-9)

Total Credits: 47

College and Department Information

Residency Program Administrator Certificate

This Certification Program is available to individuals who already possess a master's degree or who are currently working on a MEd in school administration. Three years of successful, contracted teaching experience in a K-12 educational setting within the most recent five years is required before admission to the program is granted. Contact the Department of Curriculum, Supervision, and Educational Leadership for details and admission information.

Students will not be allowed to register for EDAD courses until they have been fully admitted to either the master's degree program or the Administrator Certificate Program. See your advisor if you have completed recent graduate coursework in Intercultural Education (i.e., EDF 507).

Required Courses

Additional courses may be required (e.g., special education and/or multicultural education) depending upon the background and experience of individual students.

- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 582 - School Curriculum **Credits:** (4)
- EDAD 583 - School and Community **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 589 - School Law **Credits:** (4)
- EDAD 692 - Pre-autumn Internship **Credits:** (3)
- EDAD 694 - Internship in Improvement of Instruction and Curriculum Development **Credits:** (3-9)

Department-approved electives: Credits 3

Total Credits: 42

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

Residency Program Administrator Certificate (Special Education)

This certification program is available to individuals who already possess a master's degree or who are currently working on a MEd in special education or related field. Three years of successful, contracted teaching experience in a K-12 educational setting within the most recent five years is required before admission to the program is granted. Contact the Department of Curriculum, Supervision, and Educational Leadership for details and admission information.

Students will not be allowed to register for EDAD courses until they have been fully admitted to either the master's degree program or the Administrator Certificate Program. See your advisor if you have completed recent graduate coursework in intercultural education (i.e., EDF 507).

Required Courses

- EDAD 575 - Administration and Supervision of IDEA **Credits:** (3)
- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 692 - Pre-autumn Internship **Credits:** (3)
- EDAD 694 - Internship in Improvement of Instruction and Curriculum Development **Credits:** (3-9)
- EDSE 512 - Educational Rights of Individuals with Disabilities **Credits:** (3)

Total Credits: 33

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

School Administration, MEd

The Master of Education School Administration Program prepares teachers for the residency principal's certificate. A student shall complete 45 credits in an approved course of study to be developed in consultation with the graduate advisor. This program does not automatically qualify the student for the residency principal's certificate, which requires that an applicant complete an application and be accepted to the Administrator Certification Program and complete the required coursework in addition to a 12-credit, year-long internship The MEd School

Administration Program prepares individuals who can provide appropriate leadership and direction to the school professional staff and to the community by developing a unified system for managing human resources; developing long-range plans, policies and goals, and; executing the policies developed by the district.

Admission Requirements:

One year of successful contracted teaching experience in a K-12 classroom setting; minimum GPA 3.0; full admission to CWU; statement of objectives; three references, one must be from your current principal; transcripts from all institutions attended. Note: Completion of the master's degree does not automatically allow you to achieve the administrator's certificate.

Students will not be allowed to register for EDAD courses until they have been fully admitted to either the master's degree program or the Administrator Certificate Program. See your advisor if you have completed recent graduate coursework in intercultural education (i.e., EDF 507).

Required Courses

- Educational Foundations and Research courses (to include EDF 510) **Credits:** (7)
- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 579 - School Personnel **Credits:** (4)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 582 - School Curriculum **Credits:** (4)
- EDAD 583 - School and Community **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 586 - The Principalship **Credits:** (4)
- EDAD 589 - School Law **Credits:** (4)
- EDAD 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)

Total Credits: 45

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

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

The Department of Education, Development, Teaching and Learning (EDLT) prepares socially responsible practitioner scholars to work and learn within diverse contexts; fostering language, literacy, and learning for all.

General Information

The master of education degree programs are designed primarily for elementary and secondary school teachers and school service personnel. Since the program may also prepare the student for community college teaching and for advanced study, the student should seek advice from the

program advisors. For advice regarding specializations, contact the department.

Admission Requirements

In addition to general requirements for admission to master's programs, students desiring admission to programs in education must meet departmental requirements. Members of the appropriate program will review the student's application materials from the Office of Admissions and, if deemed necessary, may meet with the student before a recommendation for admission can be made.

Required Educational Foundations and Research Courses

EDF 510 is required of all students earning the MEd degree. The candidate further must choose at least six credits from the following: EDF 501, Educational Foundations, EDF 502, History of Education, EDF 503, Philosophy of Education, EDF 504, Advanced Educational Statistics, EDF 505, Educational Measurement for Teachers, EDF 506, Education Futurism, EDF 507, Studies and Problems in Intercultural Education, EDF 508, Comparative Education, EDF 567, Educational Change, PSY 552, Advanced Human Growth and Development, PSY 559, Advanced Educational Psychology (only one of PSY 552 or PSY 559 may be included to meet the foundations requirement), SOC 525, Society and Education, as approved by the student's graduate advisor or committee chair. Related courses may be substituted with permission of the student's graduate advisor or committee chair, the chair of the appropriate department, and the dean of Graduate Studies and Research.

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.

Literacy, MEd

Program Description:

The Master of Education: Literacy Program is designed to allow students to pursue graduate-level study in the various levels of literacy. The following college-level courses should be successfully completed prior to enrollment in the program and may not be counted as part of the required credits in the literacy program:

- Basic reading methods course
- Basic language arts course
- Basic children's literature course

Program Admission Requirements:

Submission of a copy of valid teaching certificate with application materials.

Recommended Program Admission Requirements:

Minimum of one year of contracted teaching.

Program:

The students will complete the prescribed program course of study for 46 credits. The prescribed course of study must be completed and approved by a program advisor or committee chair upon completion of 15 credits. Those wishing to obtain a Washington State Reading Endorsement must enroll in the CWU Endorsement-Only Program and pass the WEST-E (Reading) (or its current equivalent). At that time, the program designee may recommend the candidate for the Washington State Reading Endorsement. The program is delivered on-line, with core courses offered in conjunction with the Master of Education: Special Education.

Required Courses

- EDLT 520 - Literacy Curriculum: Design and Delivery **Credits:** (5)
- EDLT 521 - Program Organization: Literacy Coaching and Leadership **Credits:** (5)
- EDLT 523 - Issues and Trends in Literacy Research **Credits:** (4)
- EDLT 526 - Assessing Literacy **Credits:** (3)
- EDLT 528 - Personalizing Literacy Instruction **Credits:** (3)
- EDLT 534 - Learning Theories: Research and Applications **Credits:** (4)
- EDLT 535 - Teaching Diverse Learners **Credits:** (5)
- EDLT 536 - Understanding Research Methods **Credits:** (3)
- EDLT 537 - Designing and Writing Research **Credits:** (3)
- EDLT 592A - Practicum: Literacy Curriculum-Design and Delivery **Credits:** (1)
- EDLT 592B - Practicum: Program Organization **Credits:** (1)
- EDLT 592C - Practicum: Teaching Diverse Learners **Credits:** (1)
- EDLT 592D - Practicum: Assessing and Personalizing Literacy Growth and Development **Credits:** (2)
- EDLT 700 - Master's Thesis, Project Study **Credits:** (1-6)

Total Credits: 46

College and Department Information

Education, Development, Teaching and Learning
Department
College of Education and Professional Studies

Post-Baccalaureate University Certificate: Teaching and Linguistic Diversity

Students entering the public-school setting speaking little or no English are the fastest-growing segment of the school population. Most mainstream teachers have received little or no special training in preparing them for these students. This program will provide the opportunity for practicing teachers to receive this needed training. This training will take place through the development and implementation of four courses. Upon completion of the program, students will be able to explain how programs have come to exist as they are found today, document the theories upon which sound educational practices are based, develop and implement quality instruction, organize and use appropriate assessment procedures, and use paraprofessional and community members as quality assets in the classroom. While the program itself does not constitute a state of Washington endorsement, all courses may be applied to the completion of endorsement requirements at Central.

Required Courses

- EDBL 440 - Reading English as a Second Language **Credits:** (3)
- EDBL 514 - Introduction to Linguistic Diversity in Education **Credits:** (3)
- EDBL 530 - Sheltering in Mainstream I: Methods **Credits:** (3)
- EDBL 531 - Sheltering in Mainstream II: Assessment and Resources **Credits:** (3)

Total Credits: 12

College and Department Information

Education, Development, Teaching and Learning
Department
College of Education and Professional Studies

Special Education, MEd

Program Description:

The master of education with specialization in special education is designed to allow students to pursue graduate-level study in the various areas of special education. Certified teachers (P-12) or related service personnel who wish to add to their repertoire of strategies for diverse learners in their settings would benefit from this program.

Program Admission Requirements:

Submission of a copy of a valid teaching certificate with application materials.

High-speed internet access and webcam are necessary requirements for online learning.

Minimum of one year of contracted teaching or permission of special education faculty.

Undergraduate GPA of 3.0.

Potential graduate students will need to identify their current knowledge, skills, and philosophy related to working with students with disabilities in their admission letter.

Program:

Students will complete the prescribed program course of study for 45 credits. The prescribed course of study must be completed and approved by a program advisor or committee chair upon completion of 15 credits. The program is delivered online, with the core courses offered in conjunction with the master of education: literacy.

Required Courses

- EDSE 520 - Behavioral Intervention for Students with Disabilities **Credits:** (5)
- EDSE 522 - Collaboration/Consultation **Credits:** (5)
- EDSE 524 - Curriculum and Assessment for Students with Disabilities **Credits:** (5)
- EDSE 525 - Instruction and Assessment for Students with Disabilities **Credits:** (5)
- EDSE 534 - Learning Theories: Research and Applications **Credits:** (4)
- EDSE 535 - Teaching Diverse Learners **Credits:** (5)
- EDSE 536 - Understanding Research Methods **Credits:** (3)
- EDSE 537 - Designing and Writing Research **Credits:** (3)
- EDSE 592C - Practicum: Teaching Diverse Learners **Credits:** (1)
- EDSE 684 - Internship in Professional Affiliated Disciplines **Credits:** (2-12) (Must be taken for 3 credits.)
- EDSE 700 - Master's Thesis and/or Project Study **Credits:** (1-6) (Must be taken for 6 credits.)

Total Credits: 45

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

Sathyaranayanan (Sathy) Rajendran, PhD, CSP, ARM, LEED-AP

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
Sathyaranayanan (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 Wicking, PhD
Norman H. Welford, 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

Program Objectives and Description

The Department of Engineering Technologies, Safety, and Construction (ETSC) offers a master of science degree in engineering technology (MSET). The program is designed to prepare persons holding a bachelor of science degrees in the engineering technologies (ET), industrial technologies (IT), and similar or related degrees for career advancement. The MSET core curriculum is designed to teach students how to address technological challenges such as improving existing products, services, and work processes, and developing new ones. The context for instruction takes into account contemporary challenges in business and industry, such as innovating when technology is rapidly changing, adapting to the global economy, and protecting the environment. Students select elective courses in order to build upon their current technical capabilities or to develop knowledge and skills in a new area that complements their career objectives.

Admission Requirements

Incoming students are expected to meet all of the requirements of the graduate school, have a solid background in science and mathematics, and show evidence of scholarship. This requires that the candidate have a bachelor's degree from a recognized institution and have completed a course in pre-calculus (or its equivalent) and at least one college-level, laboratory-based science course. Any candidate who does not meet these requirements may be admitted to the program on a conditional basis, after which he or she must complete the requirements before being fully admitted to the program. If English is a secondary language, students must score 550 or more on the TOEFL examination. Transfer students will be considered using the same criteria, with consideration for equivalent graduate coursework completed elsewhere.

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.

Engineering and Technology Systems, MS (MSETS)

Program Objectives and Description

The Department of Engineering Technologies, Safety and Construction (ETSC) offers a master of science degree in Engineering and Technology Management (MSETM). The program is designed to prepare persons holding bachelor of science degrees in the engineering technologies (ET), industrial technologies (IT), and similar or related degrees for career advancement. The MSET core curriculum is

designed to teach students how to address technological challenges such as improving existing products, services, and work processes, and developing new ones. The context for instruction takes into account contemporary challenges in business and industry, such as innovating when technology is rapidly changing, adapting to the global economy, and protecting the environment. Students select elective courses in order to build upon their current technical capabilities or to develop knowledge and skills in a new area that complements their career objectives.

Admission Requirements

Incoming students are expected to meet all of the requirements of the graduate school, have a solid background in science and mathematics, and show evidence of scholarship. This requires that the candidate have a bachelor's degree from a recognized institution and have completed a course in pre-calculus (or its equivalent) and at least one college-level, laboratory-based science course. Applicants must submit official score reports for the General Aptitude Test of the GRE Examination, and scores earned must be at or above the 50th percentile. Any candidate who does not meet these requirements may be admitted to the program on a conditional basis, after which he or she must complete the requirements before being fully admitted to the program. If English is a secondary language, students must score 550 or more on the TOEFL examination. Transfer students will be considered using the same criteria, with consideration for equivalent graduate coursework completed elsewhere.

General Requirements

Students must complete all courses listed in the general requirements. IET 700 credits are to be taken in conjunction with fulfilling the research component of the curriculum. Students must complete either a thesis or a research project. The comprehensive exam is not an available option for the MSETS program.

- ETSC 501 - Industrial and Academic Research Methods **Credits:** (4)
- ETSC 523 - Development of Emerging Technologies **Credits:** (4)
- ETSC 525 - Systems Analysis and Simulation **Credits:** (4)
- ETSC 540 - Work Design and Facilities Layout **Credits:** (4)
- ETSC 541 - Industrial Operations Management **Credits:** (4)
- ETSC 555 - Engineering Project Management **Credits:** (4)
- ETSC 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6) (Must be taken for 5 credits)

General Requirements Total Credits: 29

Department-approved Technical Electives

The student must select 16 credits from the following list to complete a program total of 45 credits. The student may propose to take alternative elective course(s) that are not shown on the list of approved technical electives. If the student takes any elective course for which he or she has not met the prerequisites, then fulfilling those prerequisites will add credit hours to his or her course of study, beyond the 45 credits required for graduation. All elective courses, including 400-level IET courses, that the student wants to include in the course of study are subject to the approval of the advisor and the department chair.

- ECON 462 - Environmental and Resource Economics **Credits:** (5)
- GEOG 443 - Energy Policy **Credits:** (5)
- ETSC 512 - Alternative Energy Systems **Credits:** (4)
- ETSC 524 - Quality Control **Credits:** (4)
- ETSC 526 - Engineering Project Cost Analysis **Credits:** (4)
- ETSC 530 - Fundamentals of Lasers **Credits:** (4)
- ETSC 532 - Generation and Transmission of Electrical Power **Credits:** (4)
- ETSC 552 - LEED in Sustainable Construction **Credits:** (4)
- ETSC 560 - Finite Element Analysis **Credits:** (4)
- ETSC 577 - Robotics **Credits:** (4)
- ETSC 582 - Plastics and Composites **Credits:** (4)
- ETSC 583 - Ceramics and Composites **Credits:** (4)
- ETSC 592 - Field Studies **Credits:** (1-10) (Must be taken for 4 credits)
- ETSC 595 - Graduate Research **Credits:** (1-6)
- ETSC 596 - Individual Study **Credits:** (1-6) (Must be taken for 3 credits)
- ETSC 599 - Seminar **Credits:** (1-5) (Must be taken for 1 credit)

Elective Total Credits: 16

Total Credits: 45

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 English department offers two options for the master of arts degree: master of arts, English (literature) and master of arts, English (TESOL - teaching English to speakers of other languages).

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.

Master of Arts English (Literature)

The MA in English (literature) offers a rigorous, individualized program of advanced study of literature in English. Students choose from an array of courses and select a thesis/project or exam option. Although allowed

flexibility in their course of study, students are required to complete courses in British, American, and world literatures, as well as literary and critical theory. Students enter the program to further their understanding of literature, to strengthen their teaching qualifications, to broaden their writing experiences, or to prepare for doctoral work.

Admission Requirements

In addition to the university guidelines concerning admission to graduate degree programs, students applying to the MA in English (literature) Program must also submit a writing sample of 5-10 pages directly to the English department. The writing sample must include the student's name, birth date and student ID number for identification. The GRE general test is also required for applicants to the MA in English (literature) Program.

General Requirements of the Program

Students will complete a thesis/project or comprehensive examination. Students in each option take a minimum of 48 credits. At least 30 credits must be at the graduate level in English. Up to 15 credits may be taken in approved courses at the 400 level in English. Up to 10 credits may be taken in approved courses offered outside the English department.

Thesis/Project Option

Students who choose the thesis/project option may complete a research thesis or a creative writing project. Students completing a creative writing project must take two 400-level creative writing courses, at least one in the genre of their proposed creative writing project. To prepare for and complete their thesis/project, students must take English 588 and 6 credits of English 700 with the chair of their thesis/project committee. In all cases, students will create in conjunction with a three-member faculty thesis/project committee an analytical introduction and a reading list for their thesis/project that includes both texts central to their thesis/project and texts that contextualize their thesis/project within their chosen field of study. After completing their thesis/project, students must pass an oral exam administered by the committee over the thesis/project introduction and reading list.

Exam Option

Students who choose the exam option create, in conjunction with a three-member faculty exam committee, an individualized reading list of the material covered in that student's coursework, and must pass a comprehensive written examination developed by the committee over that material. To prepare for and complete this exam, they will take three credits of English 596, Individual Study, with the chair of their exam committee.

Required Courses

- ENG 512 - Introduction to English Graduate Study **Credits:** (5)
- ENG 515 - Advanced Studies in American Literature **Credits:** (5)

- ENG 517 - Advanced Studies in World Literature **Credits:** (5)
- ENG 518 - Advanced Literary and Critical Theory **Credits:** (5)
- ENG 519 - Advanced Studies in British Literature **Credits:** (5)

Complete one of the following two options:

Thesis /Project Option

- Approved Electives (Includes two 400-level creative writing courses for creative writing projects) **Credits:** (15)
- ENG 588 - Thesis/Project Colloquium **Credits:** (2)
- ENG 700 - Master's Thesis/Project **Credits:** (1-6) (Must be taken for 6 credits)

Exam Option

- Approved Electives **Credits:** (20)
- ENG 596 - Individual Study **Credits:** (1-6) (Must be taken for 3 credits)

Total Credits: 48

College and Department Information

English Department
College of Arts and Humanities

English: Professional and Creative Writing, MA

The professional and creative writing MA provides students with the opportunity to practice the craft of writing in a wide variety of professional and creative genres. The program provides mentorship from award-winning writers working in poetry, fiction, and creative non-fiction. Additionally, the program provides students opportunities to hone their professional writing skills with topics drawing from fields such as rhetoric and persuasive writing, research methods, and advanced technical writing and documentation. Students develop their own custom-fit courses of study, which culminate in a thesis-level capstone-writing course. The program prepares graduates to begin writing intensive careers, advance in the workplace, or prepare for further graduate programs.

Admissions Requirements

In addition to university requirements for admission to graduate degree programs, students applying to the MA Professional and Creative Writing Program must also submit a writing sample of 5-10 pages. The GRE general test is also required for applicants to the program.

Graduation Requirements

Students will complete a portfolio of professional-level writing projects at the end of their program.

Required Courses Credits: 10

- ENG 511 - Introduction to Graduate Writing **Credits: (2)**
- ENG 585 - Publishing Strategies and Practice for Writers **Credits: (5)**
- ENG 589 - Portfolio **Credits: (3)**

Department-Approved Electives Credits: 35

Choose a minimum of 35 credits of department-approved electives. Up to two 400- or 500-level Literature courses may be counted for elective credit.

- ENG 504 - Advanced Technical Writing **Credits: (5)**
- ENG 556 - Studies in Rhetoric **Credits: (5)**
- ENG 564 - Advanced Fiction Writing **Credits: (5)**
- ENG 565 - Advanced Poetry Writing **Credits: (5)**
- ENG 566 - Advanced Creative Nonfiction **Credits: (5)**
- ENG 568 - Contemporary Writers Colloquium **Credits: (5)**
- ENG 572 - Workplace Writing Research Methods **Credits: (5)**
- ENG 573 - Grant Writing: Theory and Practice **Credits: (5)**
- ENG 598 - Special Topics **Credits: (1-6)**

Total Credits: 45

English: TESOL, MA

The MA in English (TESOL) is an intensive program that can be completed in four quarters. The program is designed to foster the awareness, understanding, and skills necessary for the effective teaching of English to speakers of other languages. Through study in language, pedagogy, and culture, it prepares educators to work with adult language learners in the United States and abroad. Graduates are qualified to work in colleges and universities, private institutes, and programs and schools in the United States and abroad that provide instruction in English.

Admission Requirements: Pre- or co-requisites to completion of the program include an upper-division linguistics course and intermediate to high proficiency in a second language. International students whose first language is not English automatically meet this proficiency prerequisite. Applicants can be admitted to the program

without this background, but they will be required to gain it while enrolled in the program. Students who do not have the prerequisites or who have assistantships are strongly advised to complete the program over a two-year period due to the challenging workload.

The language proficiency requirement may be met in one of three ways:

1. Thirty quarter credits of college courses in a foreign language with a minimum 3.0 GPA in those courses
2. Intermediate to high score on the Diagnostic ACTFL Oral Proficiency Interview
3. Intermediate to high score on the Diagnostic ACTFL Writing Proficiency Test

Applicants whose native language is not English are required to submit a minimum TOEFL score of 570 paper-based (230 computer-based/88 Internet-based); those with a baccalaureate degree from an accredited U.S. university may opt for a satisfactory TOEFL or GRE score. If the applicant's native language is English, scores for the GRE general test are required.

All applicants for assistantships must submit a writing sample of 5-10 pages directly to the English department. The writing sample must include the student's name, birth date, and student ID number for identification.

General Requirements of the Program: The program consists of 45 credits, as outlined below, and offers both a thesis and an exam option.

Thesis or Exam Option: The thesis option requires candidates to write a thesis and pass a one-hour oral examination over the thesis. In order to choose the thesis option, students must have a GPA of 3.75 or higher in the program. If the exam option is chosen, students must pass a comprehensive written examination and take an additional approved elective. In order to prepare for the exam, students will register for two credits of ENG 596.

Required Courses

- Department-approved electives **Credits: (4)**
- ENG 531 - Principles and Practices of TESOL **Credits: (5)**
- ENG 532 - Phonetics and Phonology **Credits: (5)**
- ENG 533 - Second Language Acquisition **Credits: (5)**
- ENG 535 - Linguistics, Literature, and TESOL **Credits: (5)**
- ENG 537 - Pedagogical Grammar and Discourse **Credits: (5)**
- ENG 538 - Pedagogical Grammar and Discourse II **Credits: (5)**
- ENG 592 - Practicum **Credits: (1-5)** (Must be taken for 5 credits)

Complete one of the following options:

Thesis Option

- ENG 700 - Master's Thesis/Project **Credits: (1-6)**
(Must be taken for 6 credits)

Exam Option

- Department-approved electives **Credits: (4)**
- ENG 596 - Individual Study **Credits: (1-6)** (Must be taken for 2 credits)

Total Credits: 45

College and Department Information

English Department
College of Arts and Humanities

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 graduate programs are designed to provide an opportunity for students to concentrate at the master's level in one or more of the subject areas related to family and consumer sciences and family and consumer sciences/career and technical education. The goal of the program is to prepare persons for further graduate study, for public school or college teaching, as specialists in service agencies, or as professionals in, or consultants to business, industry, and government.

In consultation with a faculty advisor, and with the approval of the department chair, students may develop a program of courses in one of two specializations. Each student will complete a set of core courses plus coursework specific for each specialization. The core courses include research methods, applied statistics, field experience and the thesis credits. Students can use a thesis, or test, or project to fulfill thesis credit requirements. The two specializations include family and consumer sciences/career and technical education, and family studies. All candidates shall complete an approved course of study filed with the Office of Graduate Studies and Research. The student's advisor and graduate committee members can be selected from another department. Application to graduate study is made through the Office of Graduate Studies and Research. Interested students are encouraged to contact the department chair for information and guidance.

Master of Science Family and Consumer Sciences

Purpose: The purpose of this program is to provide an opportunity for students to concentrate at the master's level in one or more of the subject areas related to family and

consumer sciences. The goal of the program is to prepare persons for further graduate study, for public school or college teaching, as specialists in service agencies, or as professionals in, or consultants to business, industry, and government.

Program: In consultation with a faculty advisor, and with the approval of the department chair, students may develop a program of courses in one of two specializations. Each student will complete a set of core courses plus coursework specific for each specialization. The two specializations include family studies and family and consumer sciences/career and technical education. All candidates shall complete at least 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The student's advisor and graduate committee, comprised of at least three faculty, will assist in the development of the program. With approval by the department chair and the committee chair, faculty can be selected from another department.

It is expected that four to six thesis credits will be included in the student's 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/family-consumer or by contacting the department directly.

Family and Child Life, MS

The family and child life degree includes an advanced interdisciplinary study of interpersonal and family relationships. The graduate program has a strong emphasis on community involvement, practical application and research. Graduates are prepared for advanced career opportunities in children's hospitals, family service agencies, parent education programs, family counseling centers, other family life education settings or doctoral study in family relations.

Graduate students in family and child life who enter the program without prior coursework needed for preparing them for the graduate degree will need to take undergraduate courses as deficiencies or demonstrate sufficient knowledge in the area. Students wishing to pursue child life specialist certification who do not have a child life undergraduate degree will develop a program of study with their advisor to address all child life council competencies required for certification.

Admission Requirements

Students must meet the admission requirements of the School of Graduate Studies, including a bachelor's degree from an accredited institution and a minimum of a 3.0 GPA in all coursework attempted in the last 90 quarter (60 semester) hours of academic work.

Program Requirements

All students will complete 45 credits in the graduate program before completing the final culminating experience. As a culminating experience, students will complete a thesis, research project or comprehensive examination. The number of required credits of FCL 700 varies depending on the students' choice for final project: Thesis (6 credits), research project (4 credits), or examination (2 credits).

Required Courses Credits: 39

- FCL 501 - Research Methods **Credits:** (4)
- FCL 502 - Statistics **Credits:** (4)
- FCL 532 - Family Interaction **Credits:** (4)
- FCL 534 - Therapeutic Applications of Child Development **Credits:** (4)
- FCL 547 - Families and Poverty **Credits:** (4)
- FCL 592 - Family and Child Life Practicum **Credits:** (1-6) (Must be taken for 12 credits.)
- FCL 595 - Graduate Research **Credits:** (1-10) (Must be taken for 1 credit.)
- FCL 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must take 2 credits of Examination and 4 credits of Project Study, or 6 credits of Thesis.)

Department-Approved Electives Credits: 12

- FCL 503 - Family Communication **Credits:** (4)
- FCL 514 - Coping with Grief and Loss **Credits:** (4)
- FCL 515 - Therapeutic Play **Credits:** (4)
- FCL 516 - Child Life I: Child Life Scope of Practice **Credits:** (4)
- FCL 517 - Pediatric Diagnoses and Medical Terminology **Credits:** (4)
- FCL 518 - Child Life II: Impact of Child Hospitalization **Credits:** (4)
- FCL 533 - Family Life Education **Credits:** (4)
- FCL 539 - Families and Public Policy **Credits:** (4)
- FCL 544 - Family Problems and Mediation **Credits:** (4)
- FCL 596 - Individual Study **Credits:** (1-6)

Total Credits: 51

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

Family and Consumer Sciences MS, Career and Technical Education Specialization

Purpose: The purpose of this program is to provide an opportunity for students to concentrate at the master's level in one or more of the subject areas related to family and consumer sciences. The goal of the program is to prepare persons for further graduate study, for public school or college teaching, as specialists in service agencies, or as professionals in, or consultants to business, industry, and government.

Program: In consultation with a faculty advisor, and with the approval of the department chair, students may develop a program of courses in one of two specializations. Each student will complete a set of core courses plus coursework specific for each specialization. The two specializations include family studies and family and consumer sciences/career and technical education. All candidates shall complete at least 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The student's advisor and graduate committee, comprised of at least three faculty, will assist in the development of the program. With approval by the department chair and the committee chair, faculty can be selected from another department.

It is expected that four to six thesis credits will be included in the student's program.

Career and Technical Education Specialization

Graduate students enrolling in the FCS/CTE Specialization Program, as entry-level professionals, will complete courses that prepare them to demonstrate entry-level employment competencies. Each student will work with a faculty advisor to identify his or her entry competency level. Each student will also work with a faculty advisor to identify the exit competency level required for each of the six specialization courses. The number of credits available for some of the specializations courses varies from 1 to 5 credits per course. The number of credits a student needs to earn for each specialization course will be dependent upon his or her entry skill level. The credit requirement for finishing the graduate program will be 45 credits.

Required Core Credits: 24-26

- FCL 501 - Research Methods **Credits:** (4)
- FCL 502 - Statistics **Credits:** (4)
- FCL 509 - Civic Engagement **Credits:** (3) (Must be taken for 12 credits)
- **OR** FCL 590 - Cooperative Education **Credits:** (1-12) (Must be taken for 12 credits)
- FCL 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be repeated for 4-6 credits)

Required Specialization Courses

- Department-approved electives **Credits:** (7-15)
- CTE 551 - Principles of Career and Technical Education **Credits:** (4-5)
- FCL 526 - Program Delivery Methods **Credits:** (1-5)

Total Credits: 45

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

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

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.

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

Geography jointly coordinates the master of science degree program in cultural and environmental resource management with the Department of Anthropology. For further information see cultural and environmental resource management.

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. Bohrsen, 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

Geological Sciences, MS

Program Objectives and Description: The graduate program in the geological sciences is designed to prepare students for professional employment in geoscience careers in industry, consulting firms, local, state, or federal government, teaching at the community college or secondary level, and serves as a foundation for graduate studies beyond the MS level. It is also suitable training for careers in environmental law and natural resource and hazard planning. The department encourages an integrative, multi-disciplinary approach.

Admission Requirements: Incoming students are expected to meet the requirements of the graduate school, have a solid background in science and mathematics, and show evidence of superior scholarship. All students entering the MS program are expected to have a background equivalent to that required for the bachelor of science degree in geology at CWU and to have completed a geological field camp for college credit. Applicants must provide Graduate Record Examination (GRE) scores for the general test. Graduates in chemistry, physics, engineering, biology, or other technical disciplines are also encouraged to apply. Deficiencies in the student's undergraduate training as determined by the Department of Geological Sciences at the time of matriculation must be removed without graduate credit during the first year of graduate study. If English is a secondary language, students must score 550 or above on the TOEFL examination.

Application Deadlines and Supporting Materials:

Applications and all supporting materials are due by February 1 for fall quarter entrance. Applications will include a statement of your background and purpose, official transcripts, general GRE scores, and three letters of recommendation.

Program Requirements: The department offers an MS degree that requires a minimum of 60 credits of graduate study. Fifty-four credits are earned from coursework and research (35 credits at the 500 level or above) and six credits are allowed for thesis (GEOL 700). All graduate students must register for GEOL 501, Current Topics in Geology, and GEOL 502, Regional Geology of the Pacific Northwest, (both during the fall quarter of their first year), and GEOL 503, Introductory Graduate Research Methods (during the winter quarter of their first year). GEOL 504, Graduate Seminar Series, is required during the first six quarters of a student's graduate program. Candidates must pass a final oral examination on their thesis project and supporting coursework, given by a thesis committee consisting of the thesis advisor and two other faculty. Normal completion of the master of science requires two academic years and an intervening summer of field study. Students may be encouraged to begin field work prior to matriculation.

Areas and Electives in Specialization: Course requirements are tailored to the individual student's academic background, professional goals, and research interests through advising from the graduate faculty and thesis committee chair. The greatest departmental strengths are in active and regional tectonics, seismology, geodesy, geomorphology and quaternary geology, paleohydrology, environmental geo-chemistry, mineralogy, petrology, and volcanology. The department is a participating member of the Southern California Earthquake Center, a National Science Foundation sponsored (NSF) science and technology center. The department houses the data analysis center for the Pacific Northwest Geodetic Array (PANGA), a network of continuously operating GPS receivers distributed throughout the Pacific Northwest, the U.S., and Canada. In addition, the department has strong ties with the Jet Propulsion Laboratory (JPL), administered by Caltech for National Aeronautics and Space Administration (NASA); the opportunity to participate in JPL programs is a unique feature of the Geology Program at Central. The department is a participating member of the Western North America Interferometric Synthetic Aperture Radar Consortium (WinSAR) and Incorporated Research Institutions for Seismology (IRIS).

Central Washington University lies on the Columbia River basalt plateau, adjacent to the crystalline core and majestic volcanoes of the Cascade Mountains. Seismicity and active volcanism of the Cascadia subduction zone, highly deformed rocks of northern Washington and British Columbia, and a water- and natural-resource-based economy in central Washington provide ideal opportunities to study a wide variety of geologic problems.

Equipment and Computer Facilities: The geological sciences department has excellent research computer facilities including Linux computation workstations and file storage and department mail, web and ftp servers. A mix of Macs and PCs are used for image processing, basic data analysis, and generating papers and presentations. Software packages available for data processing on these platforms include GIPSY, SAC, MatLab, ArcGIS, GAMIT, LAPACK, GSL, compilers, and other development tools.

The Geodesy Laboratory houses the data processing center for the Plate Boundary Observatory and PANGA. The laboratory analyzes continuous data from the permanent GPS array in the western United States. Processing is done on a dedicated 60-node Linux cluster. Additional geodesy equipment includes a number of Trimble SSI and 4700 receivers and digital surveying equipment (Leica Total Stations and Trimble kinematic GPS).

The department has Nikon and Leica petrographic microscopes, research polarizing reflected and transmitting light microscopes, with CCD-video camera displays.

With support from CWU, the national Science Foundation, and the M. I. Murdock Charitable Trust, the department has acquired sample preparation facilities, a geochemistry laboratory with an ICP-MS and stable-isotope mass spectrometer, and an automated Philips PW 3400 Powder X-Ray Diffractometer. Laboratories include a stable isotope laboratory, equipped with a general purpose extraction line for analysis of waters, carbonates, and soils, and a modern geochemistry laboratory, equipped for isotopic, major-element, and trace-element analysis of Earth materials.

Graduate Committee: The student must have a three-member graduate committee, selected in consultation with the advisor; two members must be from the geological sciences department.

Examination: Candidates must pass a final examination on their thesis and 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.geology.cwu.edu or by contacting the department directly.

Geological Sciences, MS

Program Objectives and Description: The graduate program in the geological sciences is designed to prepare students for professional employment in geoscience careers in industry, consulting firms, local, state, or federal government, teaching at the community college or secondary level, and serves as a foundation for graduate studies beyond the MS level. It is also suitable training for

careers in environmental law and natural resource and hazard planning. The department encourages an integrative, multi-disciplinary approach.

Admission Requirements: Incoming students are expected to meet the requirements of the graduate school, have a solid background in science and mathematics, and show evidence of superior scholarship. All students entering the MS program are expected to have a background equivalent to that required for the bachelor of science degree in geology at CWU and to have completed a geological field camp for college credit. Applicants must provide Graduate Record Examination (GRE) scores for the general test. Graduates in chemistry, physics, engineering, biology, or other technical disciplines are also encouraged to apply. Deficiencies in the student's undergraduate training as determined by the Department of Geological Sciences at the time of matriculation must be removed without graduate credit during the first year of graduate study. If English is a secondary language, students must score 550 or above on the TOEFL examination.

Application Deadlines and Supporting Materials:

Applications and all supporting materials are due by February 1 for fall quarter entrance. Applications will include a statement of your background and purpose, official transcripts, general GRE scores, and three letters of recommendation.

Program Requirements: The department offers an MS degree that requires a minimum of 60 credits of graduate study. Fifty-four credits are earned from coursework and research (35 credits at the 500 level or above) and six credits are allowed for thesis (GEOL 700). All graduate students must register for GEOL 501, Current Topics in Geology, and GEOL 502, Regional Geology of the Pacific Northwest, (both during the fall quarter of their first year), and GEOL 503, Introductory Graduate Research Methods (during the winter quarter of their first year). GEOL 504, Graduate Seminar Series, is required during the first six quarters of a student's graduate program. Candidates must pass a final oral examination on their thesis project and supporting coursework, given by a thesis committee consisting of the thesis advisor and two other faculty. Normal completion of the master of science requires two academic years and an intervening summer of field study. Students may be encouraged to begin field work prior to matriculation.

Areas and Electives in Specialization: Course requirements are tailored to the individual student's academic background, professional goals, and research interests through advising from the graduate faculty and thesis committee chair. The greatest departmental strengths are in active and regional tectonics, seismology, geodesy, geomorphology and quaternary geology, paleohydrology, environmental geo-chemistry, mineralogy, petrology, and volcanology. The department is a participating member of the Southern California Earthquake Center, a National Science Foundation sponsored (NSF) science and technology center. The department houses the data analysis center for the Pacific Northwest Geodetic Array (PANGA),

a network of continuously operating GPS receivers distributed throughout the Pacific Northwest, the U.S., and Canada. In addition, the department has strong ties with the Jet Propulsion Laboratory (JPL), administered by Caltech for National Aeronautics and Space Administration (NASA); the opportunity to participate in JPL programs is a unique feature of the Geology Program at Central. The department is a participating member of the Western North America Interferometric Synthetic Aperture Radar Consortium (WinSAR) and Incorporated Research Institutions for Seismology (IRIS).

Central Washington University lies on the Columbia River basalt plateau, adjacent to the crystalline core and majestic volcanoes of the Cascade Mountains. Seismicity and active volcanism of the Cascadia subduction zone, highly deformed rocks of northern Washington and British Columbia, and a water- and natural-resource-based economy in central Washington provide ideal opportunities to study a wide variety of geologic problems.

Equipment and Computer Facilities: The geological sciences department has excellent research computer facilities including Linux computation workstations and file storage and department mail, web and ftp servers. A mix of Macs and PCs are used for image processing, basic data analysis, and generating papers and presentations. Software packages available for data processing on these platforms include GIPSY, SAC, MatLab, ArcGIS, GAMIT, LAPACK, GSL, compilers, and other development tools.

The Geodesy Laboratory houses the data processing center for the Plate Boundary Observatory and PANGA. The laboratory analyzes continuous data from the permanent GPS array in the western United States. Processing is done on a dedicated 60-node Linux cluster. Additional geodesy equipment includes a number of Trimble SSI and 4700 receivers and digital surveying equipment (Leica Total Stations and Trimble kinematic GPS).

The department has Nikon and Leica petrographic microscopes, research polarizing reflected and transmitting light microscopes, with CCD-video camera displays.

With support from CWU, the national Science Foundation, and the M. I. Murdock Charitable Trust, the department has acquired sample preparation facilities, a geochemistry laboratory with an ICP-MS and stable-isotope mass spectrometer, and an automated Philips PW 3400 Powder X-Ray Diffractometer. Laboratories include a stable isotope laboratory, equipped with a general-purpose extraction line for analysis of waters, carbonates, and soils, and a modern geochemistry laboratory, equipped for isotopic, major-element, and trace-element analysis of Earth materials.

Graduate Committee: The student must have a three-member graduate committee, selected in consultation with the advisor; two members must be from the geological sciences department.

Examination: Candidates must pass a final examination on their thesis and coursework.

Required Courses

- GEOL 501 - Current Topics in Geology **Credits:** (3)
- GEOL 502 - Regional Field Geology of the Pacific Northwest **Credits:** (2)
- GEOL 503 - Introductory Graduate Research Methods **Credits:** (3)
- GEOL 504 - Graduate Seminar Series **Credits:** (1) (Must be taken for 6 credits)
- GEOL 595 - Graduate Research **Credits:** (1-10) (Must be taken for 9-15 credits)
- GEOL 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Electives and Seminars (to be selected by advisement)
Credits: 25-31

Total Credits: 60

College and Department Information

Geological Sciences Department
College of the Sciences

Health Sciences 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 graduate programs in Health Sciences are designed to provide knowledge and expertise for students intending to pursue higher-level graduate study in doctoral or professional programs, seeking a terminal degree for entry-level positions in a variety of private and public settings, as well as for positions at community colleges and other tertiary levels. Human functioning is the overriding theme of all curricula offerings. The master of science degrees offered by HS require completion of a minimum of 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The course of study is structured in consultation with the student's

academic advisor and is approved by the department graduate program director. The specifics on the course of study depend on the degree program, and include both required and department-approved elective courses.

Admission

Applicants must first meet the general requirements for graduate study as determined by the Office of Graduate Studies and Research, and then the specific requirements of their selected program within the Department of Health Sciences (see individual programs). Conditional or probationary admission may be granted in certain circumstances.

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.

Integrative Human Physiology, MS

The master of science degree in Integrative Human Physiology integrates knowledge from multiple sciences including anatomy, physiology, physics-mechanics, biochemistry-metabolism, exercise physiology, nutrition, and statistics to advance understanding of human function under a variety of stimuli. Stimuli include human movement, disease, aging environmental stressors, physical injuries, and ergogenic aids. The program prepares students for further study at the doctoral or professional level, careers in higher education, clinical settings, corporate and community fitness/wellness centers and athletic development programs. Prospective candidates holding a degree in a relevant major, including physiology, exercise physiology, biology, exercise science, biomechanics, chemistry, nutrition, or health sciences, are encouraged to apply. Courses encompassing anatomy, physiology, physics, biomechanics, exercise physiology, kinesiology, biology, chemistry, statistics, and nutrition are strongly recommended at the undergraduate level. The Graduate Record Examination (GRE) and a scientific writing example, per department requirements, are required.

Required Courses

- IHP 551 - Metabolism and Skeletal Muscle **Credits: (5)**
- IHP 552 - Cardiopulmonary Physiology **Credits: (5)**
- IHP 553 - Laboratory Techniques in Stress Physiology **Credits: (5)**
- IHP 557 - Research Design **Credits: (4)**
- IHP 560 - Inferential Statistics **Credits: (4)**

- IHP 564 - Gross Human Anatomy: Cadaver Dissection **Credits:** (1) (Must be taken for 2 credits)
- IHP 575 - Musculoskeletal Biomechanics **Credits:** (3)
- IHP 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Electives

A minimum 11 credits from following courses:

- IHP 555 - Environmental Stress and Human Performance **Credits:** (3)
- IHP 556 - Ergogenic Aids and Human Performance **Credits:** (3)
- IHP 559 - Applied Kinesiology **Credits:** (3)
- IHP 562 - Clinical Exercise Physiology **Credits:** (3)
- IHP 595 - Graduate Research **Credits:** (1-6) (Other electives by advisement)

Total Credits: 45

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Nutrition, MS

The master of science degree in nutrition provides opportunities for students to concentrate at the master's level in the study of nutrition. The goal of the program is to prepare students to enter the workforce as specialists in nutrition or to prepare them to continue their graduate education at the doctoral level. The program offers small classes, the opportunity to work closely with faculty, an excellent learning environment, and an opportunity to conduct original research. Graduate students in nutrition have had their master's thesis consistently presented at national conferences including those of the American Dietetic Association and the American College of Sports Medicine.

Admission into the MS in nutrition is selective. Applicants are expected to have an undergraduate degree in nutrition or related fields. However, students with undergraduate degrees in biology and health science areas are encouraged to apply but can expect to take a number of undergraduate courses as part of their course load. All applicants to the MS in nutrition are required to take the Graduate Record Examination (GRE).

Required Courses

- IHP 557 - Research Design **Credits:** (4)
- IHP 560 - Inferential Statistics **Credits:** (4)
- NUTR 543 - Advanced Nutritional Biochemistry **Credits:** (3)
- NUTR 545 - Advanced Studies in Developmental Nutrition **Credits:** (4)
- NUTR 547 - Nutrition Update **Credits:** (3)
- NUTR 700 - Master's Thesis **Credits:** (1-6) (or option)

Department-approved electives: Credits 21

Total Credits: 45

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Rural and Community Health Graduate Certificate

The Graduate Certificate in Rural and Community Health offers students the opportunity to pursue graduate coursework in public health with a focus on the determinants of health in rural settings and the resulting health outcomes in such communities. The program focuses on applied study to build skills in program planning and evaluation, health services administration and management, grant writing and leadership within agencies that serve rural communities and other underserved populations. The 17-credit graduate certificate can be completed entirely online in 2 academic quarters, ideal for working students and those who are unable to commute to a traditional face-to-face academic program.

Students who complete the Graduate Certificate in Rural and Community Health will, upon completion of the program, be able to:

- Design, implement and evaluate strategies that improve health at the individual, community, and population level
- Identify determinants of health disparities in a variety of diverse settings and populations, including rural communities
- Demonstrate skills in effective management of public health programs and collaborative partnership development for health improvements at the population level

Admission Requirements

In line with university requirements for admission to graduate degree programs in the School of Graduate Studies and Research, students applying to the graduate certificate in rural and community health must submit:

- A completed application for graduate admission to the School of Graduate Studies and Research
- A written statement of educational and professional objectives
- Three letters of recommendation written by professors or others capable of assessing your potential for success in a graduate program
- Official transcripts from all universities and colleges attended
- A non-refundable application fee of \$50 payable at the time of filing application

Please see <http://www.cwu.edu/masters/apply-cwu-graduate-school> for more information.

Graduation Requirements

Students must pass all courses with a minimum grade of B- to complete the graduate certificate program.

Required Courses

- PUBH 475 - Community Health Administration **Credits:** (3)
- PUBH 513 - Health Disparities in Rural and Frontier Communities **Credits:** (3)
- PUBH 571 - Program Planning **Credits:** (4)
- PUBH 572 - Program Implementation and Evaluation **Credits:** (4)
- PUBH 580 - Grant Seeking and Administration in Public Health **Credits:** (3)

Total Credits: 17

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

Master of Arts History

Master of arts students may choose from among three different options: thesis, project, or written examination. Please note that the thesis option, but not the project and written exam options, may require students to fulfill the department's foreign language requirement.

Thesis: This option is appropriate for those who wish to pursue a PhD, either immediately after receiving the MA or at some point in the future. A thesis is a lengthy monographic work (usually 50 to 150 pages long) that addresses a topic of importance to historians in an original way.

Project: On rare occasions, when student background or experience allows, and when faculty availability and expertise exists, students may complete a project in lieu of the traditional thesis. In such special cases, proposals for an alternative to the exam or thesis options must be approved by the student's graduate advisor and the graduate committee.

Written examination: Students choosing the examination option will draw up a list of field readings in concert with an advisor. In the written exam, the student will draw on readings to answer questions posed by the advisor and committee members. An oral defense will follow the written exam. This option is especially useful for secondary school teachers who want to attain the M.A. in a timely manner and who do not wish to pursue a doctorate.

Graduate Fields of Study

Whether pursuing the thesis, a project, or the exam option, students must choose a primary field of study from a list of fields approved by the faculty. Currently, the Department of History offers the following primary fields. Fields other

than those listed need prior approval from the student's advisor.

Colonial/Revolutionary America
19th century America
20th century America
American Foreign Relations
Pacific Northwest History
U.S. West
U.S. Environmental History
U.S. Social History
U.S. Cultural History
Native American History
Latin American cultural history
Latin American religious history
Latin American state formation
Modern Mexico
Pre-imperial Russia
Imperial Russia
Soviet Union
African Health and Healing
African Childhood and Education
African Gender
Urban Africa
Pre-colonial Africa
Colonial Africa
Modern Britain and the Empire
Modern Ireland
Modern France
Modern East Asia
Comparative Nationalism
Comparative Colonialism
Comparative Gender
Comparative Revolutions
Comparative Borderlands

Thesis Requirements and Timeline

Before starting research on a thesis, you must choose an advisor and submit to her/him a short research prospectus. The prospectus is a proposal of about 8-10 pages, including the following:

- The topic and scope of your thesis or project
- A tentative thesis statement
- The primary sources you intend to use
- Historiographical review, including a statement of your work's place within it
- Preliminary chapter outline.

Once your advisor approves your prospectus, she or he will assist you in assembling a thesis committee. The prospectus must be submitted and defended on or before the end of the third quarter of graduate study (or before the completion of 30 credits, whichever comes last). Prior to the end of the fourth full quarter, the student must submit at least one completed chapter of the thesis to the thesis director/advisor for approval. Students who do not meet the above deadlines may not be permitted to continue to pursue the thesis option. After the thesis is complete, the student will defend his/her findings before his/her committee. A finalized thesis must be submitted to each of the committee members at least three weeks before the defense.

Project Requirements and Timeline

As with the thesis, students who choose the project option must enlist an advisor and submit to her/him a short research prospectus (see thesis requirements, above, for prospectus guidelines). The prospectus must be submitted and defended on or before the end of the third quarter of graduate study (or before the completion of 30 credits, whichever comes last). Once your advisor approves your prospectus, she/he will assist you in assembling a thesis committee. Prior to the end of the fourth full quarter, the student must submit a significant part of the project to her/his director/advisor for approval. Students who do not meet the above deadlines may not be permitted to further pursue the project option. After the project is completed, the student will defend his/her work before his/her committee. A finalized version of the project must be submitted to each of the committee members at least three weeks before the defense.

Exam Requirements and Timeline

Students who choose the exam option must select an advisor by the beginning of fourth quarter or after completion of 30 credits, whichever comes last. In advance of the exam, the exam director/advisor will work with the student to choose a committee and to delineate a major field (see list of fields above). In consultation with the advisor, the student will then develop a major field bibliography consisting of at least 30 books that must be read in preparation for the exam. The eight-hour exam will consist of three (3) written questions in the major field. After the exam is completed, the student must defend her/his answers before the committee.

Foreign Language Requirement

At advisor's discretion, students who choose the thesis option may be required to meet the department's foreign language requirement. The requirement can be met in two ways: (1) by attaining a grade of B in the final course of a two-year sequence of undergraduate-level foreign language instruction (the sixth quarter or fourth semester); (2) by passing the department's foreign language exam. The department's foreign language exam requires students to translate (usually a paraphrase rather than a word-for-word translation) two short passages, one from a primary source and one from secondary literature. Students taking the language exam may use dictionaries. Faculty members with the appropriate language skills will grade the exam on a pass/fail basis. If you plan to enter a PhD program in the future, we strongly urge you to gain proficiency in at least one foreign language during your MA career.

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, MA

Master of arts students may choose from among three different options: thesis, project, or written examination. Please note that the thesis option, but not the project and written exam options, requires students to fulfill the department's foreign language requirement.

Thesis: This option is appropriate for those who wish to pursue a PhD, either immediately after receiving the MA or at some point in the future. A thesis is a lengthy monographic work (usually 50 to 150 pages long) that addresses a topic of importance to historians in an original way.

Project: Occasionally, when student background or experience allows, and when faculty availability and expertise exists, students may complete a project in lieu of the traditional thesis. A project may take the form of a narrative history, a documentary film, or website, or some other effort approved by the committee.

Written examination: This option consists of an eight-hour written exam given at the end of one's graduate career. It is designed for students who do not plan to pursue a PhD in history. It is especially useful for secondary school teachers who want to attain the MA in a timely manner.

Graduate Fields of Study

Whether pursuing the thesis, a project, or the exam option, students must choose a primary field of study from a list of fields approved by the faculty. Currently, the Department of History offers the following primary fields. Fields other than those listed need prior approval from the student's advisor.

Colonial/Revolutionary America
19th century America
20th century America
American Foreign Relations
American West
American Environmental History
American Women's History
Pacific Northwest History
American Social History
American Cultural History
Native American History
Colonial Latin America
Modern Latin America
Imperialism
Pre-imperial Russia
Imperial Russia
Soviet Union
Modern Britain and the Empire
Modern Ireland
Modern France
Modern Germany
Comparative Gender and Colonialism
Ming/Qing China
20th century China
Modern Japan
Modern Southeast Asia
Environmental History

Thesis Requirements and Timeline

Before starting research on a thesis, you must choose an advisor and submit to her/him a short research prospectus. The prospectus is a proposal of about 8-10 pages, including the following:

- The topic and scope of your thesis or project
- A tentative thesis statement
- The primary sources you intend to use
- Historiographical review, including a statement of your work's place within it
- Preliminary chapter outline.

Once your advisor approves your prospectus, she or he will assist you in assembling a thesis committee composed of three historians or, in rare cases, two historians and one academic specialist from outside the department (as approved by the advisor). The prospectus must be submitted on or before the third week of the fourth quarter or before the completion of 30 credits, whichever comes last, and must be defended before the assembled committee before the end of the fourth full quarter of graduate study. By the end of the sixth full quarter, the student must submit at least one completed chapter of the thesis to the thesis director/advisor for approval. Students who do not meet the above deadlines for submission/approval of a prospectus and chapter may not be permitted to continue to pursue the thesis option. After the thesis is complete, the student will defend his/her findings before his/her committee. The final draft of the thesis (the draft to be defended) must be given to both secondary advisors at least three weeks in advance of the defense date.

Project Requirement and Timeline

As with the thesis, students who choose the project option must enlist an advisor and submit to her/him a short research prospectus (see thesis requirements, above, for prospectus guidelines). The prospectus must be submitted on or before the third week of the fourth quarter or before the completion of 30 credits, whichever comes last, and must be defended before the end of the fourth full quarter. Once your advisor approves your prospectus, she/he will assist you in assembling a thesis committee composed of three historians or, in rare cases, two historians and one academic specialist from outside the department (as approved by the advisor). The prospectus must be submitted on or before the third week of the fourth quarter or before the completion of 30 credits, whichever comes last, and must be defended before the assembled committee before the end of the fourth full quarter of graduate study. By the end of the sixth full quarter, the student must submit a significant part of the project to her/his director/advisor for approval. Students who do not meet the above deadlines may not be permitted to further pursue the project option. After the project is completed, the student will defend his/her work before his/her committee.

Exam Requirements and Timeline

Students who choose the exam option must select an advisor by the beginning of fourth quarter or after completion of 30 credits, whichever comes last. In advance of the exam, the exam director/advisor will work with the

student to choose a committee and to delineate a major field (see list of fields above). In consultation with the advisor, the student will then develop a major field bibliography consisting of at least 30 books that must be read in preparation for the exam. The student must also choose a second advisor who will help the student develop a minor field bibliography of at least 15 books. The exam will consist of three (3) written questions in the major field and two written questions (2) in the minor field. After the exam is completed, the student must defend her/his answers before the committee.

Foreign Language Requirement

Those who choose the thesis option must meet the department's foreign language requirement. The requirement can be met in two ways: (1) by attaining a grade of B in the final course of a two-year sequence of undergraduate-level foreign language instruction (the sixth quarter or fourth semester) either during the student's undergraduate or graduate career; (2) by passing the department's foreign language exam. The department's foreign language exam requires students to translate (usually a paraphrase rather than a word-for-word translation) two short passages, one from a primary source and one from secondary literature. Students taking the language exam may use dictionaries. Faculty members with the appropriate language skills will grade the exam on a pass/fail basis. If you plan to enter a PhD program in the future, we strongly urge you to gain proficiency in at least one foreign language during your MA career.

Required Courses

- HIST 511 - Historiography **Credits:** (5)
- HIST 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Students must take 15 credits of the following:

- HIST 512 - History Graduate Readings Seminar **Credits:** (5)
- HIST 515 - History Graduate Research Seminar **Credits:** (5)
These courses may be repeated.

Department-Approved Electives Credits: 19

- Choose 9 credits from 400-500 level course in History or other approved fields (courses must pertain to student's thesis).
- Choose 10 credits from 500 level courses in History

Total Credits: 45

College and Department Information

History Department
College of Arts and Humanities

Individual Studies Master Program

School of Graduate Studies and Research
Ellensburg
Barge Hall, room 214
Mail Stop 7519
509-963-3101
www.cwu.edu/masters/cwu-graduate-programs

See website for how this program may be used for educational and career purposes.

Program Director

Kevin Archer, Interim Dean, School of Graduate Studies and Research

Individual Studies, MA
Individual Studies, MEd
Individual Studies, MFA
Individual Studies, MS

Purpose: The purpose of the Individual Studies Master (ISM) Program is to afford highly qualified and motivated applicants the opportunity to create sound master's degree programs that do not already exist at CWU. These programs may be interdisciplinary in nature or focus on unique subject areas, but a student may only propose such a program when the curricula of regular graduate degree programs cannot be adjusted via Individual Studies 596 courses to meet the individuals' career objectives and/or needs. The approval of such programs is dependent upon:

- The evidenced qualifications of the applicant and evidence the applicant has the ability to complete the proposed ISM
- The institution's ability to provide a sufficient number of currently available relevant graduate level courses
- A sufficient number of faculty qualified and committed to work with the student
- Adequate scholarly and/or creative resources.

CWU will offer ISM programs only in fields where appropriate expertise and other resources exist as determined by the dean of School of Graduate Studies and Research and the Academic Standards Committee (ASC) of the Graduate Council.

Each ISM program must be as academically sound as traditional master's degrees programs housed in regular academic departments. Thus, it must demonstrate the quality, breadth, and depth normally associated with master's degrees and must be as intellectually rigorous. The capstone project of the ISM degree may be a traditional

thesis or project so long as the capstone project is allowed by the department that houses the chair of the ISM candidate's committee. Projects are broadly defined and can range from works of art or artistic expression to computer and engineering projects.

ISM programs may be created under the master of arts, master of education, master of fine arts, and master of science degree titles.

ISM Committee Chair Duties: The ISM committee chair must be involved in the application process, helping the student complete all requirements, including but not limited to filling in the Course of Study form, discussing the quality of the ISM, researching the necessary courses, and establishing an achievable time-plan. The committee chair must ensure that he or she has full workload considerations from the department chair and college dean for the time it normally takes a student to complete a graduate degree. In addition to committing to the time and work necessitated by the ISM, the committee chair must ensure the student's timely progress through the program, keeping quarterly contact with the student even if the student is not taking courses with the chair during this time. The ISM committee chair must inform the chair of the ASC of the Graduate Council and the dean of the School of Graduate Studies and Research of any problems that arise in a timely manner, so that solutions may be sought.

The ISM committee chair must provide a letter to the student that functions as a form of contract between the ISM student and the faculty member, ensuring each party knows in advance the study and time obligations to which they are committing; the letter must include a sentence stating that it functions as a form of contract between faculty members and the student. This letter must name the other two faculty members who have agreed to work with the student as committee members and detail the committee chair's

- Duties within the ISM (teaching, mentoring, facilitating, etc.)
- Anticipated time commitment to the student and his or hers studies
- Evidence of expertise in the field of study being proposed in the ISM via teaching and/or published scholarship.

Once a year, the ISM committee chair must accompany the student to a meeting with the chair of the ASC of the Graduate Council to report on progress in the degree. If the ISM committee chair is also the chair of the ASC, the annual meeting will include the dean of the School of Graduate Studies and Research.

For a traditional thesis ISM or a project ISM that contains a heavy writing component:

The ISM committee chair must ensure that the student's Course of Study includes a Preparation for Thesis course:

- This course generally must occur by the end of year 1.

- The ISM committee chair may use an established course within his/her department or create one for the purposes of this particular student, but not both.
- If this course is created as a 596 course, it will not count towards the 6 units of 596 credit permitted within the ISM Course of Study.
- During the course, the student will write a proposal that defines the scope of the thesis and identifies the research requirements. The proposal will be forwarded to the other members of the ISM committee and the chair of the ASC of the Graduate Council after completion of the course. If the ISM committee chair is also the chair of the ASC of the Graduate Council, the proposal will be forwarded to the chair of the Graduate Council.
- During the Preparation for the Thesis course, the ISM committee chair will mentor the student in writing the proposal, performing the research, assisting in developing a timeline, and assisting in any other issues necessary for a timely completion of the thesis.

For an ISM project evolving creative expression (creative expression is broadly defined and can include art exhibitions, dance, computer or engineering projects, etc.): The ISM committee chair must make sure the student's Course of Study includes a course designed to aid the student in organizing the project into a meaningful work of creative expression:

- This course generally must occur by the end of year 1.
- The ISM committee chair may use an established course within his/her department or create one for the purpose of this particular student, but not both.
- If this course is created as a 596 course, it will not count towards the 6 units of 596 credit.
- During the course, the student will write a proposal that defines the requirements for successfully completing the creative expression project. The proposal will be forwarded to the chair of the ASC at the end of the course.
- During the course, the ISM committee chair will mentor the student in writing the proposal, performing the research, assisting in developing a timeline, and assisting in any other issues necessary for a timely completion of the project.

Application Requirements, Materials, and Procedures:

The applicant must submit all the required application items listed by the School of Graduate Studies and Research catalog in addition to all of the items required by the department or program that houses the ISM committee chair. In cases where the department or programs that house the ISM committee chair have more or higher standards for admission, the student must submit or meet those standards. In cases where the department or programs that house the ISM committee chair have fewer or lower standards, the student must submit or meet the School of Graduate Studies and Research requirements.

The applicant's undergraduate transcript must show evidence of coursework in each of the fields from which the student proposes to draw for the ISM. The transcript grades for these courses must be a B or above. *In cases where applicants have significant work experience in the subject area of their proposed ISM, the work experience may be used in place of the course work.* In such cases, the student must be prepared to submit evidence of a strong work history (i.e. letters of recommendation from supervisors, examples of work done, etc.) It is up to the student and ISM committee chair to present a convincing rationale for the substitution of work experience for academic course work.

As part of their application, the ISM student applicant must:

- Complete and submit a formal application, in accordance with the instructions in the School of Graduate Studies and Research application packet, including any required application fees.
- Have the minimum GPA necessary for admission to graduate school as outlined in the graduate catalog for the last 90 quarter or 60 semester credit hours elected.
- The general GRE must be taken if the home department of the ISM committee chair requires the exam for admission to the home department graduate program. The dean of the School of Graduate Studies and Research and/or the ASC of the Graduate Council reserves the right to request GRE scores from an ISM applicant.
- For international applicants from non-English speaking countries, the TOEFL or IELTS test must be taken. The applicant must achieve the minimum score for the respective test outlined in the graduate catalog. If the home department of the ISM committee chair requires TOEFL or IELTS scores higher than what is required by the School of Graduate Studies and Research, then the applicant must meet those higher standards.
- For a traditional thesis or an ISM project that will be writing intensive, the applicant must include a minimum 5-page writing sample in the field/one of the fields being proposed for the ISM. The proposal should be double-spaced with 12-point font. For an ISM project proposal, evidence needs to be submitted to the ASC of the Graduate Council that the student has the ability to complete the ISM (e.g., if a student wants to produce a film for an ISM project, then submission of a short film the student has done would meet this requirement).
- Work with the ISM committee chair (see below) to complete and submit a Course of Study form (obtained from the School of Graduate Studies and Research website) that lists every course the student intends to take to complete the ISM:
 - at least 30 units must be 500 level and above and a strong argument must be made for including the courses chosen in the course of

study.

- these must be established courses within actual and current programs at CWU. No courses at the 300 level or below may count towards the ISM.
- only 6 units of course work may be Individual Studies or Special Topics courses (e.g., 596s). Any such course must provide outcomes and assessment, and be vetted by the ASC if the Graduate Council.
- one (1) of the courses must be a course that prepares the student to write a thesis or to define the parameters of their project (see above).
- the Course of Study must include six credits of 700 for thesis work or four 700 credits for the project option.
- the Course of Study must add up to a minimum of 45 credits.
- only 15 units of graduate-level course work may be transferred to an ISM course of study. Reasons for transferring this course work must be justified.
- Work with the ISM committee chair to write and submit a letter of application or Statement of Intent that:
 - provides a rationale for the proposed ISM.
 - identifies similar or relevant programs within graduate programs of American universities, and discusses in detail the one which the CWU student and the ISM committee chair (see below) will use a template for the Course of Study.
 - explains the aptness of the degree to the student's objectives after graduation.
 - justifies the role of each course being proposed to the ISM template as a whole.
 - provides evidence of some expertise in each of the fields of study being proposed for the ISM. *Relevant undergraduate coursework or relevant work experience would satisfy this criteria.*
 - provides evidence of a culminating experience (e.g., thesis, research project, exam, capstone course, etc.) in the undergraduate career that demonstrates the ability to organize, research, and express orally and/or in writing, complex and developed ideas. Relevant work experience may be substituted for the culminating undergraduate experience.
- Submit short commitment letters obtained from the non-chair ISM committee members from their department chairs stating support for the workload effort being expended by the committee members.
- Submit a letter from the ISM committee that will function as a contract between the student and ISM committee chair (see ISM committee chair duties section).
- Work with the ISM committee chair to devise and submit a Statement of Learner Outcomes. Learner outcomes are critical to the success of CWU degree programs. As a result, each ISM candidate is expected to prepare an acceptable

goals statement in which anticipated learner outcomes are specified. These will be measured at the completion of the program as a partial means of determining whether each student has met degree requirements.

Other Application Procedures: Only a student may propose an ISM. Faculty members may not propose an ISM but must be included in the application activities as detailed above. Each approved ISM program can only be proposed once. An ISM is considered to be a truly individual project proposed by a student and thus, by definition, each ISM may be offered only once. The decision to approve an ISM resides with both the ASC of Graduate Council and the dean of School of Graduate Studies and Research. Both the ASC of Graduate Council and the dean of the School of Graduate Studies and Research must approve the ISM proposal before it can move forward. These bodies may request more information from the applicant and/or ISM committee chair, or invite an outsider's opinion in making their determinations.

Program Procedures: All decisions, changes, requests, appeals, etc. must be performed in writing, with a copy going to the School of Graduate Studies and Research to ensure that the student's file is complete and up-to-date. The student must meet with his or her committee chair at least once per quarter, if not more. Once a year the student and the ISM committee chair must meet with the chair of the ASC of the Graduate Council or the dean of the School of Graduate Studies and Research to report on progress. If, at any other time, either the student or the ISM committee chair feels the program is not advancing as designed or anticipated, one or both must contact the chair of the ASC of the Graduate Council or dean of the School of Graduate Studies and Research for support in identifying the issues and establishing strategies for the solving them.

Note: A student may implement two (2) changes to an approved ISM Course of Study, justified in writing. Should the student require more changes to the approved ISM Course of Study, he or she may petition the ASC of the Graduate Council to implement further changes. All petitions must be in writing, and the ASC of the Graduate Council must approve or reject the request in writing. All written communication will be included in the student's file with the School of Graduate Studies and Research.

Departmental Credit for ISM Degree: The department that houses the ISM committee chair will be acknowledged by the School of Graduate Studies and Research as graduating the candidate so long as the ISM candidate successfully completes the degree.

Additional Application Information: Each applicant is encouraged to apply using the self-managed application process. This will insure efficient and rapid processing of the application. If he or she is unable to use the self-managed application system, he or she may file the application materials separately. The application file must be complete before the graduate school can act upon it. The applicant must follow all instructions included in the application packet and mentioned above. Materials

submitted in support of an application cannot be returned nor will they be for other purposes.

Examinations and Assessment: An oral final examination is required on work completed in partial fulfillment of the ISM degree requirements. The examination standards must be aligned with that of the department that houses the ISM committee chair. Some graduate committees may also require a written examination as well. The examination process is intended to assure that the student has met the objectives of her or his goal statement and that the learner outcomes have thus been achieved. If the student performs satisfactorily on the examination, the student's ISM committee will write a summary statement of the student's accomplishments and competencies for inclusion in the student's permanent file.

Application Deadlines: The deadlines for submitting all application materials are as follows:

February 1 for fall quarter
April 1 for summer quarter
October 1 for winter quarter
January 1 for spring quarter

Applicants must meet these deadlines or risk jeopardizing their admission for the quarter requested.

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/masters/cwu-graduate-programs or by contacting the department directly.

Individual Studies, MA, MEd, MFA, MS

School of Graduate Studies and Research
Ellensburg
Barge Hall, room 305
509-963-3101

www.cwu.edu/masters/cwu-graduate-programs

See website for how this program may be used for educational and career purposes.

Program Director

Kevin Archer, Interim Dean, School of Graduate Studies and Research

Individual Studies, MA
Individual Studies, MEd
Individual Studies, MFA
Individual Studies, MS

Purpose: The purpose of the Individual Studies Master (ISM) Program is to afford highly qualified and motivated

applicants the opportunity to create sound master's degree programs that do not already exist at CWU. These programs may be interdisciplinary in nature or focus on unique subject areas, but a student may only propose such a program when the curricula of regular graduate degree programs cannot be adjusted via Individual Studies 596 courses to meet the individuals' career objectives and/or needs. The approval of such programs is dependent upon:

- The evidenced qualifications of the applicant and evidence the applicant has the ability to complete the proposed ISM
- The institution's ability to provide a sufficient number of currently available relevant graduate level courses
- A sufficient number of faculty qualified and committed to work with the student
- Adequate scholarly and/or creative resources.

CWU will offer ISM programs only in fields where appropriate expertise and other resources exist as determined by the dean of School of Graduate Studies and Research and the Academic Standards Committee (ASC) of the Graduate Council.

Each ISM program must be as academically sound as traditional master's degrees programs housed in regular academic departments. Thus, it must demonstrate the quality, breadth, and depth normally associated with master's degrees and must be as intellectually rigorous. The capstone project of the ISM degree may be a traditional thesis or project so long as the capstone project is allowed by the department that houses the chair of the ISM candidate's committee. Projects are broadly defined and can range from works of art or artistic expression to computer and engineering projects.

ISM programs may be created under the master of arts, master of education, master of fine arts, and master of science degree titles.

ISM Committee Chair Duties: The ISM committee chair must be involved in the application process, helping the student complete all requirements, including but not limited to filling in the Course of Study form, discussing the quality of the ISM, researching the necessary courses, and establishing an achievable time-plan. The committee chair must ensure that he or she has full workload considerations from the department chair and college dean for the time it normally takes a student to complete a graduate degree. In addition to committing to the time and work necessitated by the ISM, the committee chair must ensure the student's timely progress through the program, keeping quarterly contact with the student even if the student is not taking courses with the chair during this time. The ISM committee chair must inform the chair of the ASC of the Graduate Council and the dean of the School of Graduate Studies and Research of any problems that arise in a timely manner, so that solutions may be sought.

The ISM committee chair must provide a letter to the student that functions as a form of contract between the ISM student and the faculty member, ensuring each party

knows in advance the study and time obligations to which they are committing; the letter must include a sentence stating that it functions as a form of contract between faculty members and the student. This letter must name the other two faculty members who have agreed to work with the student as committee members and detail the committee chair's

- Duties within the ISM (teaching, mentoring, facilitating, etc.)
- Anticipated time commitment to the student and his or hers studies
- Evidence of expertise in the field of study being proposed in the ISM via teaching and/or published scholarship.

Once a year, the ISM committee chair must accompany the student to a meeting with the chair of the ASC of the Graduate Council to report on progress in the degree. If the ISM committee chair is also the chair of the ASC, the annual meeting will include the dean of the School of Graduate Studies and Research.

For a traditional thesis ISM or a project ISM that contains a heavy writing component:

The ISM committee chair must ensure that the student's Course of Study includes a Preparation for Thesis course:

- This course generally must occur by the end of year 1.
- The ISM committee chair may use an established course within his/her department or create one for the purposes of this particular student, but not both.
- If this course is created as a 596 course, it will not count towards the 6 units of 596 credit permitted within the ISM Course of Study.
- During the course, the student will write a proposal that defines the scope of the thesis and identifies the research requirements. The proposal will be forwarded to the other members of the ISM committee and the chair of the ASC of the Graduate Council after completion of the course. If the ISM committee chair is also the chair of the ASC of the Graduate Council, the proposal will be forwarded to the chair of the Graduate Council.
- During the Preparation for the Thesis course, the ISM committee chair will mentor the student in writing the proposal, performing the research, assisting in developing a timeline, and assisting in any other issues necessary for a timely completion of the thesis.

For an ISM project evolving creative expression (creative expression is broadly defined and can include art exhibitions, dance, computer or engineering projects, etc.):

The ISM committee chair must make sure the student's Course of Study includes a course designed to aid the student in organizing the project into a meaningful work of creative expression:

- This course generally must occur by the end of year 1.
- The ISM committee chair may use an established course within his/her department or create one for the purpose of this particular student, but not both.
- If this course is created as a 596 course, it will not count towards the 6 units of 596 credit.
- During the course, the student will write a proposal that defines the requirements for successfully completing the creative expression project. The proposal will be forwarded to the chair of the ASC at the end of the course.
- During the course, the ISM committee chair will mentor the student in writing the proposal, performing the research, assisting in developing a timeline, and assisting in any other issues necessary for a timely completion of the project.

Application Requirements, Materials, and Procedures:

The applicant must submit all the required application items listed by the School of Graduate Studies and Research catalog in addition to all of the items required by the department or program that houses the ISM committee chair. In cases where the department or programs that house the ISM committee chair have more or higher standards for admission, the student must submit or meet those standards. In cases where the department or programs that house the ISM committee chair have fewer or lower standards, the student must submit or meet the School of Graduate Studies and Research requirements.

The applicant's undergraduate transcript must show evidence of coursework in each of the fields from which the student proposes to draw for the ISM. The transcript grades for these courses must be a B or above. *In cases where applicants have significant work experience in the subject area of their proposed ISM, the work experience may be used in place of the course work.* In such cases, the student must be prepared to submit evidence of a strong work history (i.e. letters of recommendation from supervisors, examples of work done, etc.) It is up to the student and ISM committee chair to present a convincing rationale for the substitution of work experience for academic course work.

As part of their application, the ISM student applicant must:

- Complete and submit a formal application, in accordance with the instructions in the School of Graduate Studies and Research application packet, including any required application fees.
- Have the minimum GPA necessary for admission to graduate school as outlined in the graduate catalog for the last 90 quarter or 60 semester credit hours elected.
- The general GRE must be taken if the home department of the ISM committee chair requires the exam for admission to the home department graduate program. The dean of the School of Graduate Studies and Research and/or the ASC

of the Graduate Council reserves the right to request GRE scores from an ISM applicant.

- For international applicants from non-English speaking countries, the TOEFL or IELTS test must be taken. The applicant must achieve the minimum score for the respective test outlined in the graduate catalog. If the home department of the ISM committee chair requires TOEFL or IELTS scores higher than what is required by the School of Graduate Studies and Research, then the applicant must meet those higher standards.
- For a traditional thesis or an ISM project that will be writing intensive, the applicant must include a minimum 5-page writing sample in the field/one of the fields being proposed for the ISM. The proposal should be double-spaced with 12-point font. For an ISM project proposal, evidence needs to be submitted to the ASC of the Graduate Council that the student has the ability to complete the ISM (e.g., if a student wants to produce a film for an ISM project, then submission of a short film the student has done would meet this requirement).
- Work with the ISM committee chair (see below) to complete and submit a Course of Study form (obtained from the School of Graduate Studies and Research website) that lists every course the student intends to take to complete the ISM:
 - at least 30 units must be 500 level and above and a strong argument must be made for including the courses chosen in the course of study.
 - these must be established courses within actual and current programs at CWU. No courses at the 300 level or below may count towards the ISM.
 - only 6 units of course work may be Individual Studies or Special Topics courses (e.g., 596s). Any such course must provide outcomes and assessment, and be vetted by the ASC if the Graduate Council.
 - one (1) of the courses must be a course that prepares the student to write a thesis or to define the parameters of their project (see above).
 - the Course of Study must include six credits of 700 for thesis work or four 700 credits for the project option.
 - the Course of Study must add up to a minimum of 45 credits.
 - only 15 units of graduate-level course work may be transferred to an ISM course of study. Reasons for transferring this course work must be justified.
- Work with the ISM committee chair to write and submit a letter of application or Statement of Intent that:
 - provides a rationale for the proposed ISM.
 - identifies similar or relevant programs within graduate programs of American universities, and discusses in detail the one which the CWU student and the ISM committee chair (see below) will use a template for the Course of

Study.

- explains the aptness of the degree to the student's objectives after graduation.
- justifies the role of each course being proposed to the ISM template as a whole.
- provides evidence of some expertise in each of the fields of study being proposed for the ISM. *Relevant undergraduate coursework or relevant work experience would satisfy this criteria.*
- provides evidence of a culminating experience (e.g., thesis, research project, exam, capstone course, etc.) in the undergraduate career that demonstrates the ability to organize, research, and express orally and/or in writing, complex and developed ideas. Relevant work experience may be substituted for the culminating undergraduate experience.

- Submit short commitment letters obtained from the non-chair ISM committee members from their department chairs stating support for the workload effort being expended by the committee members.
- Submit a letter from the ISM committee that will function as a contract between the student and ISM committee chair (see ISM committee chair duties section).
- Work with the ISM committee chair to devise and submit a Statement of Learner Outcomes. Learner outcomes are critical to the success of CWU degree programs. As a result, each ISM candidate is expected to prepare an acceptable goals statement in which anticipated learner outcomes are specified. These will be measured at the completion of the program as a partial means of determining whether each student has met degree requirements.

Other Application Procedures: Only a student may propose an ISM. Faculty members may not propose an ISM but must be included in the application activities as detailed above. Each approved ISM program can only be proposed once. An ISM is considered to be a truly individual project proposed by a student and thus, by definition, each ISM may be offered only once. The decision to approve an ISM resides with both the ASC of Graduate Council and the dean of School of Graduate Studies and Research. Both the ASC of Graduate Council and the dean of the School of Graduate Studies and Research must approve the ISM proposal before it can move forward. These bodies may request more information from the applicant and/or ISM committee chair or invite an outsider's opinion in making their determinations.

Program Procedures: All decisions, changes, requests, appeals, etc. must be performed in writing, with a copy going to the School of Graduate Studies and Research to ensure that the student's file is complete and up-to-date. The student must meet with his or her committee chair at least once per quarter, if not more. Once a year the student and the ISM committee chair must meet with the chair of the ASC of the Graduate Council or the dean of the School of the Graduate Studies and Research to report on progress. If, at any other time, either the student or the ISM

committee chair feels the program is not advancing as designed or anticipated, one or both must contact the chair of the ASC of the Graduate Council or dean of the School of Graduate Studies and Research for support in identifying the issues and establishing strategies for the solving them.

Note: A student may implement two (2) changes to an approved ISM Course of Study, justified in writing. Should the student require more changes to the approved ISM Course of Study, he or she may petition the ASC of the Graduate Council to implement further changes. All petitions must be in writing, and the ASC of the Graduate Council must approve or reject the request in writing. All written communication will be included in the student's file with the School of Graduate Studies and Research.

Departmental Credit for ISM Degree: The department that houses the ISM committee chair will be acknowledged by the School of Graduate Studies and Research as graduating the candidate so long as the ISM candidate successfully completes the degree.

Additional Application Information: Each applicant is encouraged to apply using the self-managed application process. This will insure efficient and rapid processing of the application. If he or she is unable to use the self-managed application system, he or she may file the application materials separately. The application file must be complete before the graduate school can act upon it. The applicant must follow all instructions included in the application packet and mentioned above. Materials submitted in support of an application cannot be returned nor will they be for other purposes.

Examinations and Assessment: An oral final examination is required on work completed in partial fulfillment of the ISM degree requirements. The examination standards must be aligned with that of the department that houses the ISM committee chair. Some graduate committees may also require a written examination as well. The examination process is intended to assure that the student has met the objectives of her or his goal statement and that the learner outcomes have thus been achieved. If the student performs satisfactorily on the examination, the student's ISM committee will write a summary statement of the student's accomplishments and competencies for inclusion in the student's permanent file.

Application Deadlines: The deadlines for submitting all application materials are as follows:

February 1 for fall quarter
April 1 for summer quarter
October 1 for winter quarter
January 1 for spring quarter

Applicants must meet these deadlines or risk jeopardizing their admission for the quarter requested.

College and Department Information

Individual Studies Master Program
College of the Sciences

Information Technology and Administrative Management Department

College 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

Graduate Program Coordinator

Julie Bonner, DB, administrative management, information
technology

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

Cathy Anderson, PhD, retail management and technology
Peter Anthony, EdD, administrative management
Andreas Bohman, MS, CISSP, cybersecurity
Elizabeth Fountain, PhD, administrative management
Amanda Goertz, MEd, administrative management
Kurt Kirstein, EdD, administrative management

Terry Linkletter, MS, administrative management,
information technology
Jackson Muhirwe, PhD, information technology,
cybersecurity
Susan Rivera, PhD, administrative management
Amber Simon, MBA, administrative management
Lori Thompson, PhD, administrative management
Phil Upperman, EdD, administrative management
Deborah Wells, MS, cybersecurity, administrative
management

Staff

Ellen Bjorge, communication consultant
Libby Gibson, secretary supervisor
Elizabeth Henry, program 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/it-management or
by contacting the department directly.

Cybersecurity Management Graduate Certificate

The CWU ITAM Cybersecurity Management Graduate
Certificate is for professionals who don't have time to
complete a full time graduate program yet desire a few
specialized classes to help them offer additional value on
their current job or be competitive at a new job. The
Cybersecurity certificate program was designed to address
the industry's need for skilled and educated professionals in
cybersecurity management. This high demand certificate
features four cybersecurity courses.

Required Courses

- IT 647 - Cybersecurity Fundamentals **Credits:**
(4)
- IT 657 - Strategic IT Security **Credits:** (4)
- IT 667 - Cybersecurity Risk Management
Credits: (4)
- IT 677 - Operations and Physical Security
Credits: (4)

Total Credits: 16

IT Leadership Graduate Certificate

The CWU ITAM IT Leadership Graduate Certificate is for
professionals who don't have time to complete a full time
graduate program yet desire a few specialized classes to

help them offer additional value on their current job or be competitive at a new job. The IT Leadership certificate program was designed to address the industry's need for skilled and educated professionals in IT management. Leadership in the modern workplace requires agility to deal with highly complex situations. This high demand certificate features four administrative management courses.

Required Courses

- ADMG 571 - Global Administrative Policy **Credits:** (4)
- ADMG 631 - Organizational Development **Credits:** (4)
- ADMG 641 - Innovation and Entrepreneurial Growth **Credits:** (4)
- ADMG 654 - Applied Customer Relationship Management (CRM) **Credits:** (4)

Total Credits: 16

IT Management Graduate Certificate

The CWU ITAM IT Management Graduate Certificate is for professionals who don't have time to complete a full time graduate program yet desire a few specialized classes to help them offer additional value on their current job or be competitive at a new job. The IT management certificate program was designed to address the industry's need for skilled and educated professionals in IT management. It is important that IT managers be able to speak the information technology language as well as understand organizational needs, so that they may effectively provide a bridge between IT and the organization. This high demand certificate features four IT management courses.

Required Courses

- IT 632 - Sustainable IT **Credits:** (4)
- IT 642 - Strategic Management for IT **Credits:** (4)
- IT 657 - Strategic IT Security **Credits:** (4)
- IT 682 - Enterprise Analytics **Credits:** (4)

Total Credits: 16

ITAM MS, Administrative Management Specialization

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative management expertise are in high demand. The information technology and administrative and administrative management master of science (MS-ITAM) provides a one-year professional program degree for post baccalaureate students to develop essential skills and knowledge to enhance organization competitiveness. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals for the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM graduate program has a common core curriculum (26 credits) with three specialization areas (16 credits): 1) Administrative Management and 2) Information Technology and 3) Cybersecurity Management. The programs are three academic quarters plus summer quarter (46 credits).

The administrative management specialization prepares students for critical decisions in leading organizational change, innovation, managing customer relationships, and integrating social informatics. The information technology specialization prepares students for critical decisions in sustainable IT, strategic management, IT security and enterprise analytics. The cybersecurity management specialization prepares students for cybersecurity fundamentals, policy and legal issues, risk management and continuity planning, and IT security.

All specializations build on a common core foundation. The common core course work includes managerial communications, leadership and supervision, project management, research and statistical analysis of data, financial analysis in IT and administrative management, and administrative policy. These courses bridge the gap between information technology and administrative management while offering new perspectives on the impact of technological innovation on international operations and competitiveness of an enterprise. The cybersecurity management program builds on the core knowledge areas recommended by the National Security Administration, the International Standards Organization, and International Information Systems Security Certification Consortium.

The MS-ITAM Master's Program is ideal for those interested in one of four areas of professional growth: career starters, career climbers, career changers, or career crossers. Career starters are recent graduates seeking a professional degree before entering workforce. The career climbers include professionals seeking graduate degrees for advancing their industry specific careers. Career changers will find the MS-ITAM degree an important part of their strategy to move into new fields with the career crossers seeking cross-training to advance in current fields. For those professionals interested in continuing their education

to the doctoral level at another institution, the MS-ITAM graduate degree also offers the thesis elective.

Program Description

The MS-ITAM Master's Program is coordinated by a program coordinator from the ITAM department who is responsible for working with graduate students and their direct advisors in planning for courses of study. The program is delivered at the CWU Ellensburg campus or 100% online dependent upon university guidelines. Applicants must meet the requirements of acceptance to CWU School of Graduate Studies and Research.

ITAM MS Core Requirements

- ADMG 501 - ITAM Boot Camp **Credits:** (2)
- ADMG 525 - Global Managerial Communications **Credits:** (4)
- ADMG 531 - Financial Analysis in IT and Administrative Management **Credits:** (4)
- ADMG 545 - Research and Statistical Analysis of Data **Credits:** (4)
- ADMG 571 - Global Administrative Policy **Credits:** (4)
- ADMG 573 - Global Leadership and Supervision **Credits:** (4)
- ADMG 574 - Global Project Management **Credits:** (4)

Total Core Credits: 26

Administrative Management Specialization

- ADMG 631 - Organizational Development **Credits:** (4)
- ADMG 641 - Innovation and Entrepreneurial Growth **Credits:** (4)
- ADMG 654 - Applied Customer Relationship Management (CRM) **Credits:** (4)
- ADMG 681 - Social Informatics **Credits:** (4)

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

- ADMG 689 - Capstone Written Project **Credits:** (4)
- **OR** IT 689 - Capstone Written Project **Credits:** (4)
OR
- ADMG 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)
- **OR** IT 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)

Total Credits: 46

College and Department Information

Information Technology and Administrative Management Department
College of Education and Professional Studies

ITAM MS, Cybersecurity Management Specialization

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative management expertise are in high demand. The information technology and administrative management master of science (MS-ITAM) provides a one-year professional program degree for post baccalaureate students to develop essential skills and knowledge to enhance organization competitiveness. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals for the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM graduate program has a common core curriculum (26 credits) with three specialization areas (16 credits): 1) Administrative Management and 2) Information Technology and 3) Cybersecurity Management. The programs are three academic quarters plus summer quarter (46 credits).

The administrative management specialization prepares students for critical decisions in leading organizational change, innovation, managing customer relationships, and integrating social informatics. The information technology specialization prepares students for critical decisions in sustainable IT, strategic management, IT security and enterprise analytics. The cybersecurity management specialization prepares students for cybersecurity fundamentals, policy and legal issues, risk management and continuity planning, and IT security.

All specializations build on a common core foundation. The common core course work includes managerial communications, leadership and supervision, project management, research and statistical analysis of data, financial analysis in IT and administrative management, and administrative policy. These courses bridge the gap between information technology and administrative management while offering new perspectives on the impact of technological innovation on international operations and competitiveness of an enterprise. The cybersecurity

management program builds on the core knowledge areas recommended by the National Security Administration, the International Standards Organization, and International Information Systems Security Certification Consortium.

The MS-ITAM Master's Program is ideal for those interested in one of four areas of professional growth: career starters, career climbers, career changers, or career crossers. Career starters are recent graduates seeking a professional degree before entering workforce. The career climbers include professionals seeking graduate degrees for advancing their industry specific careers. Career changers will find the MS-ITAM degree an important part of their strategy to move into new fields with the career crossers seeking cross-training to advance in current fields. For those professionals interested in continuing their education to the doctoral level at another institution, the MS-ITAM graduate degree also offers the thesis elective.

Program Description

The MS-ITAM Master's Program is coordinated by a program coordinator from the ITAM department who is responsible for working with graduate students and their direct advisors in planning for courses of study. The program is delivered at the CWU Ellensburg campus or 100% online dependent upon university guidelines. Applicants must meet the requirements of acceptance to CWU School of Graduate Studies and Research.

ITAM MS Core Requirements

- ADMG 501 - ITAM Boot Camp **Credits:** (2)
- ADMG 525 - Global Managerial Communications **Credits:** (4)
- ADMG 531 - Financial Analysis in IT and Administrative Management **Credits:** (4)
- ADMG 545 - Research and Statistical Analysis of Data **Credits:** (4)
- ADMG 571 - Global Administrative Policy **Credits:** (4)
- ADMG 573 - Global Leadership and Supervision **Credits:** (4)
- ADMG 574 - Global Project Management **Credits:** (4)

Total Core Credits: 26

Cybersecurity Management Specialization

- IT 647 - Cybersecurity Fundamentals **Credits:** (4)
- IT 657 - Strategic IT Security **Credits:** (4)
- IT 667 - Cybersecurity Risk Management **Credits:** (4)
- IT 677 - Operations and Physical Security **Credits:** (4)

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

- ADMG 689 - Capstone Written Project **Credits:** (4)
- **OR** IT 689 - Capstone Written Project **Credits:** (4)
OR
- ADMG 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)
- **OR** IT 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)

Total Credits: 46

College and Department Information

Information Technology and Administrative Management
Department
College of Education and Professional Studies

ITAM MS, Information Technology Specialization

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative management expertise are in high demand. The information technology and administrative and administrative management master of science (MS-ITAM) provides a one-year professional program degree for post baccalaureate students to develop essential skills and knowledge to enhance organization competitiveness. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals for the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM graduate program has a common core curriculum (26 credits) with three specialization areas (16 credits): 1) Administrative Management and 2) Information Technology and 3) Cybersecurity Management. The programs are three academic quarters plus summer quarter (46 credits).

The administrative management specialization prepares students for critical decisions in leading organizational change, innovation, managing customer relationships, and

integrating social informatics. The information technology specialization prepares students for critical decisions in sustainable IT, strategic management, IT security and enterprise analytics. The cybersecurity management specialization prepares students for cybersecurity fundamentals, policy and legal issues, risk management and continuity planning, and IT security.

All specializations build on a common core foundation. The common core course work includes managerial communications, leadership and supervision, project management, research and statistical analysis of data, financial analysis in IT and administrative management, and administrative policy. These courses bridge the gap between information technology and administrative management while offering new perspectives on the impact of technological innovation on international operations and competitiveness of an enterprise. The cybersecurity management program builds on the core knowledge areas recommended by the National Security Administration, the International Standards Organization, and International Information Systems Security Certification Consortium.

The MS-ITAM Master's Program is ideal for those interested in one of four areas of professional growth: career starters, career climbers, career changers, or career crossers. Career starters are recent graduates seeking a professional degree before entering workforce. The career climbers include professionals seeking graduate degrees for advancing their industry specific careers. Career changers will find the MS-ITAM degree an important part of their strategy to move into new fields with the career crossers seeking cross-training to advance in current fields. For those professionals interested in continuing their education to the doctoral level at another institution, the MS-ITAM graduate degree also offers the thesis elective.

Program Description

The MS-ITAM Master's Program is coordinated by a program coordinator from the ITAM department who is responsible for working with graduate students and their direct advisors in planning for courses of study. The program is delivered at the CWU Ellensburg campus or 100% online dependent upon university guidelines. Applicants must meet the requirements of acceptance to CWU School of Graduate Studies and Research.

ITAM MS Core Requirements

- ADMG 501 - ITAM Boot Camp **Credits:** (2)
- ADMG 525 - Global Managerial Communications **Credits:** (4)
- ADMG 531 - Financial Analysis in IT and Administrative Management **Credits:** (4)
- ADMG 545 - Research and Statistical Analysis of Data **Credits:** (4)
- ADMG 571 - Global Administrative Policy **Credits:** (4)
- ADMG 573 - Global Leadership and Supervision **Credits:** (4)

- ADMG 574 - Global Project Management **Credits:** (4)

Total Core Credits: 26

Information Technology Specialization

- IT 632 - Sustainable IT **Credits:** (4)
- IT 642 - Strategic Management for IT **Credits:** (4)
- IT 657 - Strategic IT Security **Credits:** (4)
- IT 682 - Enterprise Analytics **Credits:** (4)

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

- ADMG 689 - Capstone Written Project **Credits:** (4)
- **OR** IT 689 - Capstone Written Project **Credits:** (4)
OR
- ADMG 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)
- **OR** IT 700 - Master's Thesis, Project Study and/or Examination **Credits:** (1-6)

Total Credits: 46

College and Department Information

Information Technology and Administrative Management
Department
College of Education and Professional Studies

ITAM MS, Structures of Data Analytics for IT Managers Specialization

The Information Technology and Administrative Management Master of Science (MS-ITAM) in Data and Analytics combines the necessary soft skills, such as project management and communication, with data and analytics to prepare students to obtain careers as information technology professionals with an emphasis in the ability to gather, organize, and analyze information data to make strategic decisions.

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative management expertise are in high demand. The information technology and administrative and administrative management master of science (MS-ITAM) provides a one-year professional program degree for post baccalaureate students to develop essential skills and knowledge to enhance organization competitiveness. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals for the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM graduate program has a common core curriculum (26 credits) with three specialization areas (16 credits): 1) Administrative Management and 2) Information Technology and 3) Cybersecurity Management. The programs are three academic quarters plus summer quarter (46 credits).

The administrative management specialization prepares students for critical decisions in leading organizational change, innovation, managing customer relationships, and integrating social informatics. The information technology specialization prepares students for critical decisions in sustainable IT, strategic management, IT security and enterprise analytics. The cybersecurity management specialization prepares students for cybersecurity fundamentals, policy and legal issues, risk management and continuity planning, and IT security.

All specializations build on a common core foundation. The common core course work includes managerial communications, leadership and supervision, project management, research and statistical analysis of data, financial analysis in IT and administrative management, and administrative policy. These courses bridge the gap between information technology and administrative management while offering new perspectives on the impact of technological innovation on international operations and competitiveness of an enterprise. The cybersecurity management program builds on the core knowledge areas recommended by the National Security Administration, the International Standards Organization, and International Information Systems Security Certification Consortium.

The MS-ITAM Master's Program is ideal for those interested in one of four areas of professional growth: career starters, career climbers, career changers, or career crossers. Career starters are recent graduates seeking a professional degree before entering workforce. The career climbers include professionals seeking graduate degrees for advancing their industry specific careers. Career changers will find the MS-ITAM degree an important part of their strategy to move into new fields with the career crossers seeking cross-training to advance in current fields. For those professionals interested in continuing their education to the doctoral level at another institution, the MS-ITAM graduate degree also offers the thesis elective.

Program Description

The MS-ITAM Master's Program is coordinated by a program coordinator from the ITAM department who is responsible for working with graduate students and their direct advisors in planning for courses of study. The program is delivered at the CWU Ellensburg campus or 100% online dependent upon university guidelines. Applicants must meet the requirements of acceptance to CWU School of Graduate Studies and Research.

ITAM MS Core Requirements

- ADMG 501 - ITAM Boot Camp **Credits: (2)**
- ADMG 525 - Global Managerial Communications **Credits: (4)**
- ADMG 531 - Financial Analysis in IT and Administrative Management **Credits: (4)**
- ADMG 545 - Research and Statistical Analysis of Data **Credits: (4)**
- ADMG 571 - Global Administrative Policy **Credits: (4)**
- ADMG 573 - Global Leadership and Supervision **Credits: (4)**
- ADMG 574 - Global Project Management **Credits: (4)**

Total Core Credits: 26

Structures of Data Analytics for IT Managers Specialization

- IT 682 - Enterprise Analytics **Credits: (4)**
- IT 684 - Approaches to Data Mining for IT Managers **Credits: (4)**
- IT 686 - Approaches to Data Analytics for IT Managers **Credits: (4)**
- IT 688 - Reporting Data and Analytics **Credits: (4)**
- IT 700 - Master's Thesis, Project Study and/or Examination **Credits: (1-6)**

Total Specialization Credits: 20

Total Credits: 46

College and Department Information

Information Technology and Administrative Management Department
College of Education and Professional Studies

International Studies and Programs

International Studies
Ellensburg
International Center, room 101
Mail Stop 7408
509-963-3612
Fax 509-963-1558
www.cwu.edu/international-programs

See website for how these programs may be used for educational and career purposes.

Executive Director, Office of International Studies and Programs

Ediz Kaykayoglu, MS

Associate Director, Office of International Studies and Programs

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.

Graduate Preparation Program Certificate

This program will develop skills necessary for study in graduate level programs specifically for non-native English speakers. Topics include academic writing, reading, research, presentation skills, academic classroom culture, and advanced note-taking skills.

Admissions Requirements

For direct admission into the Graduate Preparation Program, applicants are required to submit one of the following:

- a) a minimum Test of English as a Foreign Language (TOEFL) iBT, score of 71 (scores should be no more than two years old at the time of application) with each section being no lower than:

Reading: 7
Listening: 7
Speaking: 15
Writing: 17
or

- b) a minimum International English Language Testing Systems (IELTS) academic score of 6.0 (scores should be no more than two years old at the time of application) with each section being no lower than 5.0.

Students with no test scores or scores below the requirement will be tested and placed in the UESL Program.

Graduation Requirements

Students complete a culminating project at the end of the quarter. Students must receive a B or higher in each course to meet the language requirement for the graduate program.

Required Courses

- ESL 100AR - Academic Research **Credits:** (2)
- ESL 100CC - Academic Classroom Culture **Credits:** (1)
- ESL 100LS - Academic Listening and Speaking **Credits:** (3)
- ESL 100RV - Academic Reading and Vocabulary **Credits:** (3)
- ESL 100RW - Research Writing **Credits:** (3)

Total Credits: 12

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, police-community 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

Program Description

The MS degree in law and justice is designed to serve two distinct groups (1) those in law and justice field with professional experience and (2) those without professional experience who aspire to a law and justice career. The program offers two options, both of which are 60 credits. Of these 60 credits, 28 credits are in the core courses (7 mandatory courses) and another 28 are from seminar electives. Option A is geared towards the working professional; it entails taking 56 credits worth of courses plus a four-credit capstone course where the final culminating experience is a written exam with an oral defense. This option is aimed at those who are looking for a career in criminal justice. Option B also includes 56 credits of courses but has a thesis or research project as the culminating experience. This option is primarily for those interested in continuing on and doing doctoral work.

Admission

Applicants for admission to the Master of Law and Justice Program must:

1. Apply to the School of Graduate Studies at CWU;
2. Have a bachelor's degree in the social sciences from a recognized four-year college or university in the U.S. or the equivalent from an institution abroad, or a bachelor's degree and professional experience;
3. At least a 3.0 GPA in all coursework attempted during the last 90-quarter (60 semesters) hours of study;
4. Submit three professional letters of recommendation; and
5. Submit personal statement of objectives.

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, MS

Program Description

Option A includes a comprehensive examination as the culminating experience and option B includes a thesis or research project as the culminating experience. Both options are 60 credits to complete. Option B is primarily designed for those interested in research or pursuing further graduate level work.

Core Requirements Credits: 25

- LAJ 511 - Theories of Crime, Deviance, and Justice **Credits:** (5)
- LAJ 520 - Constitutional Issues in Criminal Justice **Credits:** (5)
- LAJ 524 - Policy Analysis **Credits:** (5)
- LAJ 535 - Research Methods **Credits:** (5)
- LAJ 536 - Statistics and Data Analysis **Credits:** (5)

Seminar Electives Credits: 30

Select 6 of the courses from the following:

- LAJ 516 - Organizational Leadership **Credits:** (5)
- LAJ 540 - Law and Social Control **Credits:** (5)
- LAJ 541 - Race, Class, Gender, and Justice **Credits:** (5)
- LAJ 542 - Criminal Justice History **Credits:** (5)
- LAJ 543 - Theory and Evidence on Crime Prevention **Credits:** (5)
- LAJ 544 - Theory and Evidence in Policing **Credits:** (5)
- LAJ 545 - Ethical Studies **Credits:** (5)
- LAJ 546 - Theory and Evidence in Corrections **Credits:** (5)
- LAJ 547 - Theory and Evidence in Courts and Law **Credits:** (5)
- LAJ 548 - Decision Making in Law and Justice **Credits:** (5)
- LAJ 549 - Juvenile Justice **Credits:** (5)
- LAJ 550 - Advanced Research Methodology **Credits:** (5)
- LAJ 551 - Legal Liability for Professionals **Credits:** (5)
- LAJ 552 - Criminal Justice Controversies **Credits:** (5)
- LAJ 598 - Special Topics **Credits:** (1-5)
Other Courses: (5 credit maximum)
- LAJ 590 - Cooperative Education **Credits:** (1-5)
(may be repeated up to 5 credits)
- LAJ 596 - Individual Study **Credits:** (1-6) (may be repeated up to 5 credits)

Competency Demonstration Credits: 5

Select one of the options below:

- LAJ 689 - Master's Capstone **Credits:** (5) (Option A)
- LAJ 700 - Master's Thesis, Project, Study, or Portfolio **Credits:** (1-6) (Option B)

Total Credits: 60

College and Department Information

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/business

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 Management does not offer any graduate programs at this time.

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 Wieggers, 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

The master of arts for Mathematics Teaching Program has been structured mainly for middle school and high school mathematics teachers. It also may prepare a student for community college teaching and for advanced study in mathematics education. Sequencing of the required coursework is minimal and makes it possible in most cases to complete all the requirements for the degree in three consecutive summer sessions.

Admission Requirements: In addition to general guidelines for admission to master's programs, the department prefers that a student has earned a baccalaureate degree with a major in mathematics or equivalent from an accredited college or university. A student with a baccalaureate degree with a major other than mathematics may be admitted to the graduate program upon the recommendation and permission of the chair of the mathematics department. Any deficiencies for regular admission must be removed during the first year of graduate study.

Applicants should have one year of teaching experience certified by an appropriate school official.

Program: The student shall complete at least 46 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research.

Project, Thesis

The choice among a written report, field study, or other project, or a formal research problem in mathematics or mathematics education which results in a thesis based upon the student's goals, in close consultation with the student's graduate committee.

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.

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
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

Department Fees

All fees are billed to students' accounts.

- \$15 fee for each MUS 154 (Class Instruction) course (all sections except B and H).
- \$125 fee for 1 credit and \$250 fee for 2 credits each quarter of enrollment in MUS 164, 264, or 364 (Individual applied instruction).
- \$250 fee each quarter of enrollment in MUS 464 (Individual applied instruction).
- \$125 fee for 2 credits and \$250 fee for 4 credits each quarter of enrollment in MUS 564 and 664 (Individual applied instruction).
- \$125 fee each quarter of enrollment in X71 (Secondary applied instruction).
- \$40 fee each quarter for students enrolled in Vocal Jazz I
- \$40 fee for each scheduled student recital
- \$15 fee for each MUS 252, 253, and 254 (Class Instrumental Methods) course
- \$5 annual locker fee (Optional if you choose to get a locker)
- \$5 fee for students enrolled in Percussion Ensemble
- \$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.

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.

Master of Music

The master of music curriculum is designed to provide opportunity for depth of study in an area of specialization, to increase professional competence in teaching and performance, and to prepare for continued, self-directed study or advanced graduate study.

Program: All candidates must complete at least 45 credits as delineated in an approved course of study filed with the Office of Graduate Studies and Research. The major fields are:

1. Composition
2. Conducting
3. Performance
4. Pedagogy
5. Music Education

At least one-third of the total credit requirements must be in the major field, including MUS 700 as required by the

specialization; one-third in other music courses (including three credits of MUS 521 [Methods of Musical Research], six credits of music history, six credits of music theory, and three ensemble credits); and one-third may be elective courses in supportive areas from any discipline. At least 25 credits applied toward the degree must be at the 500 level or above. No more than 20 credits applied toward the degree may be at the 400 (senior undergraduate) level. No 300 level credits may be applied toward the degree. Students are expected to plan their program with a graduate advisor and committee.

Admission Requirements

Admission into the institution does not assure admission into the music program. In addition to general university guidelines for admission to the master's program through the Graduate School, the following requirements apply to the master of music degree:

1. Candidates must have a bachelor's degree from an accredited college with a major in music or its equivalent.
2. Acceptance into a specific major field will require an evaluation of a candidate's ability conducted by a committee of three faculty members, two of whom will be from the particular major field. Normally one of these two will serve as the candidate's graduate advisor, and the committee as a whole may serve as the candidate's graduate committee.
3. In addition, non-performance majors must also demonstrate a level of musicianship equal to what would be considered appropriate for 300-level study. Students may demonstrate this level of musicianship in several ways, appropriate to the desired degree program or deemed appropriate by the evaluating committee after consultation with the student. Examples include, but are not limited to, a performance audition in an applied area or conducting (live or taped), a videotape or audiotape of a performance directed by the applicant, or a videotape of a music lesson or class taught by the applicant.
4. For admission requirements to each field, see section one in each field entry under specific requirements for major fields.

Students may elect to take the diagnostic exams in Theory and/or History. If the student earns a grade of "Pass" in either test, general program requirements will be reduced by 3 credits in the respective area. These exams must be taken by the end of the first week of residency.

Graduation Requirements

Graduate Colloquium

Accreditation by the National Association of Schools of Music (NASM) requires that music departments create "a traditional and/or virtual community of students and faculty to permit the formal and informal sharing of experience, ideas, and knowledge." (NASM Handbook X.B.4) The Graduate Colloquium is the means by which this community is created and fostered through opportunities

for students to present and share their work, have formal and informal discussions with faculty and other guests, and share announcements and information of broader interest.

Colloquia are organized by the Graduate Coordinator and are held once quarterly. Colloquium does not require registration, but satisfactory Colloquium attendance (100%) is a graduation requirement for all enrolled graduate students. Attendance is monitored by the Graduate Coordinator, who will report attendance records when students apply for graduation. If extreme circumstances prevent full attendance, students may appeal to the Graduate Committee for consideration of alternate fulfillment of the attendance requirement

General Requirements for All Graduate Music Degrees

Courses in Major Field, including MUS 700, Thesis - Credits: 15-21

Other Studies in Music including below - Credits: 18

- MUS 521 - Methods of Musical Research **Credits: (3)**
- Six credits of music history **Credits: (6)**
- Six credits of music theory **Credits: (6)** (Composition majors may substitute a non-theory course in this category)
- Three credits in ensemble courses **Credits: (3)** (Course substitution for ensemble requirements for summer MM Education degree program)

Department-Approved Electives Credits: 6-12

Elective courses in supportive areas.

Total Credits: 45

Specific Requirements for Major Fields:

A. Composition

1. Admission

Admission to this program will be based upon an evaluation of appropriate compositions submitted by the student.

2. Courses in the major field

A minimum of 9 credits of composition classes, in addition to the 6 credits of thesis study, selected from:

- MUS 440 - Analytic Techniques II **Credits: (3)**
- MUS 522 - Advanced Orchestration **Credits: (3)**

- MUS 523 - Advanced Composition **Credits: (3)** (may be repeated)
- MUS 547 - Electronic Music Composition **Credits: (3)**
- MUS 613 - Graduate Seminar in Music: Music Theory/Composition **Credits: (1-3)** (may be repeated)

3. Other studies

Other studies in music should include:

- MUS 521 - Methods of Musical Research **Credits: (3)**
- 3 credits of music history courses (selected from Music History Graduate Course listing below)
- 3 credits in ensemble courses (selected from Ensemble Graduate Course listing below)

4. Thesis

The thesis project (MUS 700) will be an original composition of a level appropriate as a final project and a covering paper. Normally this paper will be based on the thesis composition.

- MUS 700 - Master's Thesis, Project Study, and/or Examination **Credits: (1-6)**

B. Conducting

1. Admission

Admission to this program will require faculty evaluation of evidence of an appropriate level of musicianship, satisfied in one of the following ways:

- A performance or conducting audition
- A videotape of a performance directed by the applicant
- Other evidence deemed appropriate in consultation with the evaluating committee.

This program requires a one-year residency prior to graduation. Candidates will work under the direct supervision of one of the three conductors of the major performance ensembles (Orchestra, Wind Ensemble, and Choir) during each quarter in residence. Students will be encouraged to study in all three areas whenever possible.

2. Courses in the major field

A minimum of 9 credits of conducting classes, in addition to the 6 credits of thesis study, selected from:

- MUS 541 - Advanced Conducting **Credits: (3)** (may be repeated)

- MUS 615 - Graduate Seminar in Music: Conducting **Credits:** (1-3) (may be repeated)

3. Other studies

Other studies in music should include:

- MUS 521 - Methods of Musical Research **Credits:** (3)
- 3 credits in music theory courses (selected from Music Theory Graduate Course listing below)
- 3 credits of music history courses (selected from Music History Graduate Course listing below)
- 3 credits in ensemble courses (selected from Ensemble Graduate Course listing below)

4. Thesis

As a thesis project (MUS 700) the student will conduct a public performance and submit a covering paper. Normally this paper will be based on the works conducted.

- MUS 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6)

C. Performance

1. Admission

Admission to this program will be based upon an evaluation of an audition equivalent in scope to at least one-half of a full baccalaureate recital.

It is expected that vocal performance majors must be able to:

- Demonstrate competency in French, German or Italian equal to the successful completion of one year of university level foreign language. If a candidate is lacking this requirement upon entry, the student must take a year of French or German as a remedial course.
- Demonstrate the ability to translate musical texts, transcribe French, German, and Italian text into International Phonetic Alphabet with proper pronunciation. If a candidate is lacking in this area, the student will be advised to take all or part of the CWU Diction sequence (MUS 536, MUS 537, MUS 538).

2. Courses in the major field

A minimum of 12 credits of major applied instruction, in addition to the 6 credits of thesis study.

- MUS 664 - Major Applied Area (Individual Instruction) **Credits:** (2 or 4) (may be repeated)

3. Other studies

Other studies in music should include:

- MUS 521 - Methods of Musical Research **Credits:** (3)
- 3 credits in music theory courses (selected from Music Theory Graduate Course listing below)
- 3 credits of music history courses (selected from Music History Graduate Course listing below)
- 3 credits in ensemble courses (selected from Ensemble Graduate Course listing below)

4. Thesis

As a thesis project (MUS 700) the student will present a full public recital and submit a covering paper. Normally this paper will be based on the works presented on the recital.

- MUS 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6)

D. Pedagogy

1. Admission

Admission to this program will be based upon an evaluation of an audition equivalent in scope to at least one-half of a full baccalaureate recital, and evaluation of a paper written for an undergraduate class in the field of music instruction.

It is expected that vocal pedagogy majors must be able to:

- Demonstrate competency in French, German or Italian equal to the successful completion of one year of university level foreign language. If a candidate is lacking this requirement upon entry, the student must take a year of French or German as a remedial course.
- Demonstrate the ability to translate musical texts, transcribe French, German, and Italian text into International Phonetic Alphabet with proper pronunciation. If a candidate is lacking in this area, the student will be advised to take all or part of the CWU Diction sequence (MUS 536, MUS 537, MUS 538).

2. Courses in the major field

- MUS 425 - Studio Pedagogy - appropriate to the major applied area (A-G-piano, voice, string, wind, brass, percussion) **Credits:** (3)
- MUS 524 - Applied Pedagogy in Music **Credits:** (3)

- MUS 564 - Major Applied Area (Individual Instruction) **Credits:** (2 or 4) (may be repeated) (minimum of 6 credits required)
- 3 additional credits in pedagogy, chosen from:
 - MUS 424 - Jazz Music Education
 - MUS 425 - A-G Studio Pedagogy (outside of major applied area)
 - MUS 426 - A-G Studio Literature (in the major applied area)
 - MUS 520 - Methods of Teaching Music Theory
 - MUS 616 - Graduate Seminar in Music: Pedagogy

3. Other studies

Other studies in music should include:

- MUS 521 - Methods of Musical Research **Credits:** (3)
- 3 credits in music theory courses (selected from Music Theory Graduate Course listing below)
- 3 credits of music history courses (selected from Music History Graduate Course listing below)
- 3 credits in ensemble courses (selected from Ensemble Graduate Course listing below)

4. Thesis

As a thesis project (MUS 700) the student will present either:

- A demonstration project with covering paper, and one-half of a public recital.
OR
- A demonstration project, one-half of a public recital and a covering paper based on the works presented on the recital.
OR
- A research paper and one-half of a public recital.
- OR
- a self contained research or pedagogical project.

Demonstration projects include lecture-recitals or other public presentations of information.

Research projects are generally self-contained written studies on larger topics.

- MUS 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6)

E. Music Education

1. Admission

Admission to this program will be based upon:

- Evaluation of an undergraduate paper in the field of music education.
- The completion of a least one year of successful public school music instruction (under a special request made by the entering student, this requirement may be waived by the music education committee).
- Evidence of an appropriate level of musicianship, satisfied in one of the following ways:
 - 1) A performance audition
 - 2) A videotape or audiotape of a performance directed by the applicant
 - 3) A videotape of a music lesson or class taught by the applicant
 - 4) Other evidence deemed appropriate in consultation with the evaluating committee.

2. Courses in the major field

A minimum of 9 credits in courses that enable students to understand and evaluate research in music education, in addition to 3-6 credits of MUS 700, selected from:

- MUS 425 - Studio Pedagogy **Credits:** (3)
- MUS 424 - Jazz Music Education **Credits:** (3)
- MUS 560 - Instructional Development in Music Education **Credits:** (3)
- MUS 611 - Graduate Seminar in Music: Music Education **Credits:** (1-3) (may be repeated)

3. Other studies

Other studies in music should include:

- MUS 521 - Methods of Musical Research **Credits:** (3)
- 3 credits in music theory courses (selected from Music Theory Graduate Course listing below)
- 3 credits of music history courses (selected from Music History Graduate Course listing below)
- 3 credits in ensemble courses (selected from Ensemble Graduate Course listing below)

4. Thesis, Project, or Portfolio Examination

As a culminating experience (MUS 700), the student will present either:

- MUS 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6)
- A research thesis (6 credits MUS 700).
- A demonstration, analytical or creative project and a covering paper based on the project (6 credits MUS 700).
- A written preliminary examination, program portfolio, and oral examination (3 credits MUS 700).

Final Examination

All students must pass a comprehensive final examination, oral, or written and oral, based on their coursework and the thesis, project, or portfolio. Before the Final Examination can be scheduled, students must have completed and submitted the written portion of the thesis, project, or portfolio.

According to University policy, an application for the final examination, approved by the student's graduate committee, must be filed in the Graduate Office at least three weeks in advance of the examination. This application has several specific parts to it, so early acquisition and completion of this form is strongly recommended. Consult the Graduate Office for any and all appropriate deadline dates.

For more details about Graduate Studies in Music, see the Department of Music's Handbook for Graduate Studies available on-line at the department Website: www.cwu.edu/music.

Graduate Cognate in Music

Similar to an undergraduate minor, a graduate cognate in music lends more coherence to the cluster of elective courses students take beyond those required for the degree and offers more meaningful recognition for this cluster of courses.

Admission

Students who have been accepted into a graduate major in music may apply for admission to a graduate cognate in music after they arrive on campus. Admission to a cognate requires the following, in order:

- Acceptance for admission to CWU graduate program
- Acceptance for admission to a major graduate program in music (by audition/interview)
- Acceptance for admission to the graduate cognate by separate audition/interview. This interview/admission will normally be conducted during the first quarter of enrollment or later. It is not part of the primary admission process so as to avoid confusion of initial advising and enrollment. Acceptance for admission is also dependent on space available in the area, to be determined by faculty in that area.

Guidelines

- Students are allowed one graduate cognate in music.
- Students accepted into a cognate will have an assigned advisor, but will not need to form a graduate committee for the cognate final project

or recital. This advisor will be responsible for evaluating the culminating recital or project and will also be a member of the student's graduate committee.

- Courses counted for the cognate must also be indicated on the course of study form, separate from general, specific and elective curricular requirements.
- Material and coursework covered in the cognate would be eligible for inclusion in the final examination, as approved by student's major graduate committee chair.

Content

Students must complete a total of 13 credits to complete a cognate: minimum of 12 credits of courses approved by the cognate advisor in consultation with the major advisor, plus 1 credit of MUS 600, Graduate Cognate Project in the quarter the required culminating work is presented, above the 45 credits required for the master's degree (totaling a minimum of 58 for the degree with major and cognate).

Subject Areas

Composition
Conducting
Jazz Pedagogy
Music Education
Music History
Music Theory
Performance
Performance-Pedagogy

Individual Subject Area Requirements:

Composition

Students receive guided study in their own musical composition, culminating in the presentation of a musical composition or project in the field of composition.

- MUS 523 - Advanced Composition **Credits: (3)** (must be taken for 6 credits)
- MUS 600 - Graduate Cognate Project **Credits: (1)**
- 6 credits of approved Composition/Theory classes. See Music Theory Graduate course listing below for options.

Conducting

Students are provided opportunities to hone their conducting skills, culminating in a project or public performance demonstrating progress in the student's conducting experience.

- MUS 600 - Graduate Cognate Project **Credits:** (1)
- 9 credits of approved conducting classes, including at least three credits of MUS 541. Normally, courses are chosen from below:
- MUS 541 - Advanced Conducting **Credits:** (3)
- MUS 615 - Graduate Seminar in Music: Conducting **Credits:** (1-3)
- 3 credits of orchestration or arranging courses (see Music Theory Graduate course listing below for options).

Jazz Pedagogy

Students are provided opportunities to study jazz pedagogy through the combined elements of informed jazz performance practice and demonstrated teaching/coaching of students, culminating in an appropriate pedagogical project or written document.

Required Courses

- MUS 424 - Jazz Music Education **Credits:** (3)
- MUS 485 - Choral Arranging **Credits:** (3) OR MUS 486 - Jazz Band Arranging **Credits:** (3)
- MUS 574 - Jazz Styles and History **Credits:** (3)
- MUS 600 - Graduate Cognate Project **Credits:** (1)
- A minimum of 3 ensemble credits from the following in any combination (may be repeated for credit):
- MUS 418 - Jazz Combos **Credits:** (1)
- MUS 510 - Vocal Jazz Choir **Credits:** (1)
- MUS 532 - Big Band **Credits:** (1)

Music Education

Students are provided opportunities to study and conduct research in the field of music education in greater depth, culminating in an appropriate written document or project.

- MUS 600 - Graduate Cognate Project **Credits:** (1)
- 12 credits of approved classes. Normally, courses would be chosen from:
- MUS 560 - Instructional Development in Music Education **Credits:** (3)
- MUS 611 - Graduate Seminar in Music: Music Education **Credits:** (1-3) (may be repeated)

Music History

Students are provided opportunities to study and conduct research in the field of music history in greater depth, culminating in an appropriate written document or project.

- MUS 600 - Graduate Cognate Project **Credits:** (1)

- 12 credits of approved Music History classes. (Note: These credits are in addition to 3 credits of Music History required in all master's degrees.) See Music History Graduate course listing below for options.

Music Theory

Students are provided opportunities to study and conduct research in the field of music theory in greater depth, culminating in an appropriate written document or project.

- MUS 600 - Graduate Cognate Project **Credits:** (1)
- 12 credits of approved Music Theory classes (Note: These credits are in addition to 3 credits of Music Theory required in all master's degrees.) See Music Theory Graduate course listing below for options.

Performance

Students receive opportunities through applied study and performance experience to improve their performance skills on a primary instrument or voice, culminating in a public performance.

- MUS 564 - Major Applied Area (Individual Instruction) **Credits:** (2 or 4) (may be repeated, minimum of 8 credits required)
- MUS 426 - Studio Literature **Credits:** (3); and vocalist take: MUS 558 - Survey of Solo Vocal Literature **Credits:** (3)
- 1 ensemble credit (Note: this credit is in addition to 3 credits of ensembles required in all master's degrees)
- MUS 600 - Graduate Cognate Project **Credits:** (1)

Pedagogy

Students receive opportunities to improve performance skills with additional emphasis on the pedagogy of the primary instrument or voice, culminating in an appropriate performance, project, or combination in lecture/demonstration.

- MUS 425 - Studio Pedagogy - appropriate to the major applied area (A-G-piano, voice, string, wind, brass, percussion) **Credits:** (3)
- MUS 524 - Applied Pedagogy in Music **Credits:** (3)
- MUS 564 - Major Applied Area (Individual Instruction) **Credits:** (2 or 4) (may be repeated, minimum of 6 credits required)
- MUS 600 - Graduate Cognate Project **Credits:** (1)

Listing of Graduate Courses in Music History, Music Theory, and Ensembles

Music History Graduate Courses

- MUS 558 - Survey of Solo Vocal Literature **Credits:** (3)
- MUS 571 - History of Orchestra Music **Credits:** (3)
- MUS 572 - Music in the 20th Century **Credits:** (3)
- MUS 573 - History of Opera **Credits:** (3)
- MUS 574 - Jazz Styles and History **Credits:** (3)
- MUS 575 - History of Chamber Music **Credits:** (3)
- MUS 576 - History of Choral Music **Credits:** (3)
- MUS 579 - Aesthetics of Music **Credits:** (3)
- MUS 610 - Graduate Seminar in Music: Composer **Credits:** (1-3)
- MUS 612 - Graduate Seminar in Music: Music History/Literature **Credits:** (1-3)

Music Theory Graduate Courses

- MUS 440 - Analytical **Credits:** (3) (eligible for graduate credit)
- MUS 485 - Choral Arranging **Credits:** (3)
- MUS 486 - Jazz Band Arranging **Credits:** (3) (eligible for graduate credit)
- MUS 520 - Methods of Teaching Theory **Credits:** (3)
- MUS 522 - Advanced Orchestration **Credits:** (3)
- MUS 523 - Advanced Composition **Credits:** (3)
- MUS 547 - Electronic Music Composition **Credits:** (3)
- MUS 610 - Graduate Seminar in Music: Composer **Credits:** (1-3)
- MUS 613 - Graduate Seminar in Music: Music Theory/Composition **Credits:** (1-3)

Ensemble Graduate Courses

- MUS 510 - Vocal Jazz Choir **Credits:** (1)
- MUS 513 - Flute Choir **Credits:** (1)
- MUS 514 - Brass Choir **Credits:** (1)
- MUS 515 - Chamber Orchestra **Credits:** (1)
- MUS 517 - Chamber Music Ensemble **Credits:** (1)
- MUS 529 - Percussion Ensemble **Credits:** (1)
- MUS 532 - Big Band **Credits:** (1)
- MUS 561 - Opera Workshop **Credits:** (1-2)
- MUS 562 - Opera Production **Credits:** (1-3)
- MUS 566 - Wind Ensemble **Credits:** (1-2)
- MUS 567 - University Choir **Credits:** (1-2)
- MUS 568 - Chamber Choir **Credits:** (2)

- MUS 577 - Orchestra **Credits:** (1-2)
- MUS 587 - Marching and Concert Band **Credits:** (1-2)
- MUS 588 - Symphonic Band **Credits:** (2)
- MUS 595 - Graduate Research **Credits:** (2)

College and Department Information

Music Department
College of Arts and Humanities

Physical Education, School Health, and Movement Studies Department

College of Education and Professional Studies
School of Education
Ellensburg

Dorothy Purser Hall, room 101

Mail Stop 7572

509-963-1911

Fax: 509-963-1848

www.cwu.edu/peshms

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

Master of Science

Health and Physical Education

The student shall complete at least 45 credits as outlined in an approved course of study filed with the office of Graduate Studies and Research. The course of study is structured in consultation with the student's academic advisor and is approved by the department director of graduate studies. Conditional or probationary admission may be granted to applicants not meeting all of the admission criteria.

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.

Athletic Administration, MS

The Athletic Administration MS is a leadership degree. It is focused on the development of skills and knowledge related to the administration of athletics. It is intended for individuals who teach and coach, or those interested in exploring possibilities for becoming school athletic directors or leaders in other types of athletic administration. Past graduates are in the following fields: interscholastic and intercollegiate athletic administration, college intramural management, sport & facility management, indoor/outdoor sport recreation management, and private athletic businesses. The program expands on topics included in the instructional curriculum of the National Interscholastic Athletic Administrators Association (NIAAA). Opportunities exist to gain additional NIAAA certification as part of this program.

Please contact Physical Education, School Health & Movement Studies to get more information about applying.

Required Courses

- HPE 510 - Issues in Health and Physical Education **Credits:** (3)
- HPE 546 - Advanced Administration of Athletics **Credits:** (3)
- HPE 557 - Research Methods and Design in Health and Physical Education **Credits:** (4)
- HPE 560 - Statistical Applications in Health and Physical Education **Credits:** (4)
- HPE 570 - Legal Liability and Risk Management **Credits:** (3)
- HPE 574 - Public Relations and Marketing in Athletics **Credits:** (3)

- HPE 583 - Leadership and Decision Making in Interscholastic Sports **Credits:** (3)
- HPE 584 - Mentoring of Coaches and Athletes **Credits:** (3)
- HPE 585 - Event, Facilities, and Scheduling Management of Sport **Credits:** (3)
- HPE 586 - Athletic Budgeting, Finance, and Fundraising **Credits:** (3)
- HPE 587 - Governing Organizations in Sports and Athletics **Credits:** (2)
- HPE 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for six credits)
- PE 540 - Socio-psychological Dimensions of Sport **Credits:** (3)
- PE 590 - Cooperative Education **Credits:** (1-6) (Must be taken for 3 credits.)

Total Credits: 46

College and Department Information

Physical Education, School Health, and Movement Studies
Department
College of Education and Professional Studies

Health and Physical Education, MS

The master of science in health and physical education offers an on-line program focused on the types of knowledge and skills that will enhance one's effectiveness as a teacher of physical and health education. Students who are already teacher certified can add a health and fitness endorsement through advisement. In addition to general university requirements for admission to the graduate school, full admission to the graduate program in health and physical education requires an undergraduate degree with a major in the student's desired area of study.

Required Courses

- HPE 510 - Issues in Health and Physical Education **Credits:** (3)
- HPE 557 - Research Methods and Design in Health and Physical Education **Credits:** (4)
- HPE 560 - Statistical Applications in Health and Physical Education **Credits:** (4)
- HPE 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6)

Department-approved electives - Credits: 28

Total Credits: 45

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

The Department of Physics does not offer any graduate programs at this time.

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

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.

Public Administration, MS

Program Objectives

The MS-PA is a non-thesis required master degree program, for which students can complete their degree within a 12-month time period. The MS-PA in the political science department is designed: to provide relevant knowledge and skills to mid-career professionals or administrators working in the public, private, or non-profit

sectors; to help the students to prepare for advancement in their occupations and positions with leadership roles through curricula focused on strengthening analytical and practical knowledge and skills in public sector management; and to help students to obtain competitive knowledge and skills through a comparative analysis of public administration and public policy as they work in a more complex, diverse, and changing administrative environment with increasing use of information technologies within a globalizing world.

Program Admission Requirements

The expectations for admission to the MS-PA programs will mirror and strengthen the admission requirements for the graduate admission to CWU. In as much as the MS-PA program is geared towards professionals already working within a related field, however, there are a few additional admission requirements necessary specifically for the proposed program as listed below:

- GPA of 3.0 for four-year undergraduate studies is required unless otherwise stated by CWU GSR.
- Students will not be required to take the Graduate Record Exam (GRE).
- Students will be required to have five years of professional experience in the public, private or non-profit sectors beyond a bachelor's degree from an accredited college or university.
- Three letters of reference will be required from students.
- Each student will also be required to submit a letter of interest indicating how the program fits into her/his professional goals.
- For international or English as a Second Language students, they will be required to take an English language proficiency test recognized as fulfilling the admission policy of CWU's School of Graduate Studies Research.
- Application Deadline and Materials: Students must comply with all deadlines and procedures for "applying to CWU" in the graduate admissions section of the CWU catalog.

Graduation Requirements

- Students completing the MS-PA will be required to complete 47 credits while maintaining a minimum GPA of 3.0.
- The MS-PA requires at least 12 months of full time or 24 months of part-time study to complete the degree.
- Master thesis is not required. However, students will develop and execute a capstone project with a written research report of 25 pages. Once completed, students will be required to undergo an oral completion exam wherein they present their capstone project findings to a faculty committee. Both a written research report and an oral exam are required to successfully complete the degree.

- Graduate faculty committee: The student will have a three-member graduate committee, to be selected in consultation with the program director and the dean of graduate school. This committee assess the oral exam.

Required Courses Credits: 37

- POSC 520 - Public Sector Management and Administration **Credits: (5)**
 - POSC 522 - Comparative Public Administration **Credits: (5)**
 - POSC 526 - Evaluating Public Policy Effectiveness **Credits: (5)**
 - POSC 550 - Administrative Laws and Regulations **Credits: (5)**
 - POSC 689 - Capstone Project **Credits: (5)**
 - POSC 700 - Master's Thesis and/or Examination **Credits: (1-6)**
 - SOC 501 - Social Science Research Methods **Credits: (5)**
 - SOC 566 - Organization Research and Assessment **Credits: (5)**
- (NOTE: During the first quarter, students need to take POSC 520, SOC 501, and also either POSC 522 or POSC 526.)

Elective Courses (10 credits from the following list of courses upon the approval of the faculty advisor):

- POSC 521 - The Public Executive **Credits: (5)**
- POSC 523 - Public Finance and Budgeting **Credits: (5)**
- POSC 527 - Nonprofit Organization Administration **Credits: (5)**
- POSC 530 - State and Local Government **Credits: (5)**
- POSC 535 - Government Information Systems **Credits: (5)**
- POSC 537 - Intergovernmental Relations **Credits: (5)**
- POSC 560 - Comparative Public Policy **Credits: (5)**
- POSC 598 - Special Topics **Credits: (1-6)**

Total Credits: 47

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

Primate Behavior, MS

This program is interdisciplinary and emphasizes the

approaches and contributions to primatology made by biologists, anthropologists, psychologists, and philosophers. It includes a basic core of 21 credits in primatology, with 18 elective credits selected in consultation with the student's advisor.

Students must complete at least 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The course of study is selected by advisement before completing 20 credits. Two quarters in residence are required.

Admission Requirements

In addition to general guidelines for admission to master's programs, applicants for admission must have the following qualifications:

1. An undergraduate degree in anthropology, psychology, or biology. Before admission, program faculty will evaluate the academic course work and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate work which need to be overcome before entrance into the program.
2. Students must submit GRE scores for the general test.
3. International students for whom English is a second language must provide TOEFEL scores to demonstrate English proficiency.
4. Students must arrange for a graduate faculty advisor in the program to serve as their major advisor.

Admission to the program and continuation in it may be conditional on the applicant's satisfactory completion of remedial courses. Such courses will not count toward the program credit requirement, but in some cases they may be taken after admission to the program.

Special Programs

The PBE library room 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 Dean Hall, room 232 A, 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.

Graduate Committee

The student will have at least a three-member graduate committee selected in consultation with the thesis committee chair.

Program Fees

Lab fees are attached to the following courses conducted at the Chimpanzee and Human Communication Institute: PRIM 595C, PRIM 700, and PRIM 516.

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, MS

This program is interdisciplinary and emphasizes the approaches and contributions to primatology made by biologists, anthropologists, psychologists, and philosophers. It includes Required Courses (totaling 23 credits) and Department Approved Elective courses (totaling 22 credits) that are selected in consultation with the student's advisor. Students must complete at least 45 credits as outlined in an approved course of study filed with the School of Graduate Studies and Research. The course of study is selected by advisement before completing 20 credits. Two quarters in residence are required. Course fees are attached to PRIM 516.

Admission Requirements

In addition to general guidelines for admission to CWU Master's programs, applicants for admission to Primate Behavior must have the following qualifications:

1. Applicants must have an undergraduate degree in anthropology, psychology, biology, or a related field. Before admission, program faculty will evaluate the academic course work and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate work which need to be overcome before entrance into the program. Admission to the program and continuation in it may be conditional on the applicant's satisfactory completion of remedial courses. Such courses will not count toward the program credit requirement, but in some cases they may be taken after admission to the program.
2. Applicants must submit GRE scores for the general test.
3. International applicants for whom English is a second language must provide TOEFL scores to demonstrate English proficiency.
4. Applicants must arrange for a graduate faculty advisor in the program to serve as their major advisor.

Graduation Requirements

The student must have a three-member thesis committee selected in consultation with the thesis committee chair. The student may choose either thesis option or project option in partial fulfillment of graduation requirements.

Required Courses Credits: 23

- PRIM 503 - Current Issues in Primatology **Credits:** (4)
- PRIM 504 - Primate Culture and Cognition **Credits:** (4)
- PRIM 505 - Ethnoprimateology **Credits:** (4)
- PRIM 513 - Research Methods in Primatology **Credits:** (5)
- PRIM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 22

To be selected by advisement.

Total Credits: 45

College and Department Information

Primate Behavior and Ecology Program
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

Chair

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, cyber-supervision
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 Department of Psychology offers courses of study leading to the master of science degree in experimental psychology, applied behavior analysis, and mental health counseling and to the education specialist degree in school psychology. For students already holding the master's degree, a certification-only program is offered in school psychology.

Admission Requirements

Admission to these programs is based on evaluation of the student's prior scholastic record: verbal, quantitative, and writing scores on the Graduate Record Examination (GRE), recommendations by instructors and/or employers, a statement of professional objectives, and, where appropriate, the applicant's potential to succeed in required practica and internships. If prerequisite background courses or their equivalents have not already been completed, they must be taken as soon as possible. Courses will not be accepted as meeting program prerequisites if taken on a credit/no-credit basis.

Each student is required to file a course of study form with the Office of Graduate Studies and Research by the end of their first quarter. The course of study is structured in consultation with the student's academic advisor and is approved by the department chair. The student is expected to complete at least 30 credits after full admission to the program. Students who wish to use faculty time or departmental resources for completion of thesis work must register for at least one (1) credit of PSY 595 or PSY 700 during each quarter in which they require assistance and resources. Students must be registered for two (2) credits of PSY 595 or PSY 700 during the quarter in which the final thesis defense is held.

Background Check and Liability Insurance: Students admitted to the Mental Health Counseling, or School Psychology programs will be required to have on file a completed, current background and fingerprint check. Also, in order to enroll in clinical training courses (practicum or internship), a student must arrange to purchase individual professional liability insurance. More information regarding procedures, costs, and types of insurance coverage available may be obtained from the department chair or program director.

Practica and Internships: Satisfactory completion of all required practica and internships is mandatory for retention in all degree and certification programs. Grades assigned in these courses are S or U.

Final Examination: Candidates for the master's and education specialist degree must pass an oral final examination on work offered for the degree. This examination will include a presentation and defense of the thesis and may include a review of courses completed in the student's area of specialization.

Education Specialist and/or Certification in School Psychology

The mission, purpose, and governance structure of the School Psychology program is based in the scientist-practitioner model. This approach asserts that:

1. The practice and theory of counseling and the provision of school psychological services must be interconnected
2. Applied skill must be melded with existing scientific knowledge

3. While school psychologists are primarily trained as practitioners, scientific principles, methods, and approaches should be utilized when working with clients

4. Knowledge evolves through the interaction of experimentation, practice, and study

This framework for the professional preparation of school psychologists is divided into three facets:

Facet 1: Coursework

Facet 2: Practica

Facet 3: Internship and thesis

The three facets are interrelated. Students begin without significant academic knowledge. As they begin academic work, their initial assumptions are challenged, guiding them to new understandings of practice and knowledge of counseling and psychology. Their maturity through academics and practica culminate with the final facet where they begin their independent work both in practice (internship) and science (thesis). Students are highly encouraged to meld their academic work with their applied work at each level, and their theses are encouraged to connect to the work they pursue in their internship.

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.

Experimental Psychology, MS

Program Director

Ralf Greenwald, PhD

Psychology Bldg., Room 428

The Experimental Psychology Graduate Program reflects our commitment to providing students with a generalized background in experimental psychology at the graduate level. Students are expected to complete a set of required core courses and a set of electives that allow the students to concentrate in areas of study adequately represented among the faculty. These areas include cognitive psychology, physiological psychology, social psychology, health psychology, and animal behavior. It is possible to develop curricular tracks in other areas of psychology and/or interdisciplinary programs; however, to be certain that the curriculum can be developed to meet the student's needs, it should be planned in consultation with a faculty advisor prior to enrollment in the program.

Applicants for admission should indicate their interest area(s) and potential faculty advisors in their personal statement of goals. Upon enrolling, students will meet with their faculty advisors to discuss academic objectives and to establish a research plan. Collaborative research that is

developed in conjunction with a faculty advisor and that may lead to the student's thesis is encouraged.

Prerequisites: PSY 300 and 362 and 363 (or approved equivalents). Prerequisite courses may be taken concurrently with certain program courses.

Methods and Statistics Courses Credits: 11-13

Choose at least three of the five courses listed below:

- PSY 544 - Tests and Measurements **Credits:** (4)
- PSY 553 - Single-Subject Design **Credits:** (3)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 558 - Advanced Statistics **Credits:** (5)
- PSY 588 - Advanced Statistics II **Credits:** (4)

Required Courses Credits: 22

- PSY 505 - Professional Development in Experimental Psychology **Credits:** (1) (Must be taken for 3 credits)
- PSY 510 - Instructional Strategies in the Behavioral Sciences **Credits:** (3)
- PSY 580 - Current Issues in Psychology **Credits:** (3)
- PSY 586 - Ethics in Research **Credits:** (4)
- PSY 595 - Graduate Research **Credits:** (1-10) (Must be taken for 3 credits)
- PSY 700E - Master's Thesis in Experimental Psychology **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 10-12

Electives in areas of concentration (selected in consultation with advisor). Must be approved by program director.

Research

Students must present their research either at CWU's annual on-campus Symposium On University Research and Creative Expression (SOURCE) or at another conference or public forum. This requirement must be completed at least two weeks before the end of the quarter in which the student is graduating.

Total Credits: 45

College and Department Information

Psychology Department
College of Education and Professional Studies

Mental Health Counseling, MS

Program Director

Elizabeth Haviland, PhD
Psychology Building, room 118

The Mental Health Counseling program of Central Washington University selects, educates, and supervises competent mental health counselors. Selection focuses on a small number of highly qualified students. Our Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited counselor-training program balances rigorous academic course work with a 3-4 part personalized clinical experience in our on-site training clinic. Through individualized supervision, we provide support and feedback to facilitate students' development of knowledge, skills, practice, and personal growth. Our goal is to prepare counselors, with a strong sense of professional identity, to meet and advocate for the diverse needs of clients.

The student shall complete a comprehensive portfolio defense and an approved course of study filed with the School of Graduate Studies and Research. The course of study normally consists of the courses below.

Prerequisites: PSY 362 and 363 (or approved equivalent). Prerequisite courses may be taken concurrently with certain program courses. In addition, the following undergraduate courses are strongly recommended: personality or abnormal; social or developmental; learning; physiological, multicultural issues in psychology and a course in history and systems of psychology. Please note the background check and liability insurance requirements described in the general departmental information section.

Required Courses Credits: 86

- PSY 502 - Professional Orientation: Mental Health Counseling **Credits:** (3)
- PSY 538 - Substance Abuse and Dependence **Credits:** (5)
- PSY 544 - Tests and Measurements **Credits:** (4)
- PSY 552 - Human Growth and Development, Advanced **Credits:** (4)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 560 - Theories and Practice of Counseling **Credits:** (4)
PSY 560 and 593A are taken concurrently. Successful completion of PSY 560 and 593A is required for final admission to the Mental Health Counseling Program.
- PSY 561 - Group Counseling **Credits:** (3)
- PSY 567 - Counseling and Assessment: Children and Adolescents **Credits:** (4)
- PSY 568 - Counseling and Assessment Strategies for Adults **Credits:** (4)

- PSY 571 - Counseling for Relationships and Families **Credits:** (4)
- PSY 573 - Career Development and Counseling **Credits:** (4)
- PSY 574 - Multicultural Counseling and Assessment **Credits:** (4)
- PSY 584 - Behavior Disorders and Psychopathology **Credits:** (4)
- PSY 589 - Professional and Ethical Issues **Credits:** (4)
- PSY 593A - Practicum in Counseling I: Interviewing **Credits:** (4)
Successful completion of PSY 560 and 593A is required for final admission to the Mental Health Counseling Program.
- PSY 593B - Practicum in Counseling II: Assessment **Credits:** (4)
- PSY 593C - Practicum in Counseling III: Advanced **Credits:** (4)
- PSY 681A - Mental Health Internship I: Group **Credits:** (3)
- PSY 681B - Mental Health Counseling Internship II: Advanced **Credits:** (1-12)
Students who take the master of science (MS) degree and also seek school psychology certification must complete an internship in mental health (PSY 681B) and in school psychology (PSY 683). Other courses required for certification in school psychology will be determined through individual assessment.
- PSY 689 - Capstone in Mental Health Counseling **Credits:** (4)

Department-Approved Electives Credits: 4

Total Credits: 90

College and Department Information

Psychology Department
College of the Sciences

School Psychology, EdS

Program Director

Heath Marrs, EdD
Psychology Bldg., room 436

The State Board of Education's standards for certification of school psychologists require that the candidate complete an approved specialist degree program in psychology that has been developed in concert with school and professional organizations. (Note: candidates who have already received a master's degree in a related field are not required to earn a specialist degree, but must complete all requirements or their equivalent for certification.) Successful completion of the certification program at Central leads to eligibility for

the residency certificate as an educational staff associate (ESA) school psychologist and national certification through the National Association of School Psychologists. The certification program also requires satisfactory completion of the PRAXIS II examination in school psychology. The EdS degree and certification program in school psychology is fully approved by the National Association of School Psychologists (NASP).

Two cohorts are available for applicants for the EdS School Psychology Program. The full-time Ellensburg cohort is designed for students who have a bachelor's degree or higher. Coursework, practicum, and internship is completed full-time throughout the academic year. The part-time Summer cohort is designed for K-12 educators with at least 3 years of professional experience or individuals who have already obtained a Master's degree. Coursework is completed full-time during the summer and part-time during the academic year. Applicants must obtain a letter of support from their host school district indicating availability to complete practicum hours in their employment setting during the academic year. Up to 20 quarter credits earned as part of a previous graduate degree may be accepted towards the EdS degree, if coursework is equivalent to the required course of study as determined by the CWU School Psychology program. Applicants with earned Master's degree do not need to submit GRE scores for consideration for admission.

Prerequisites: PSY 362, PSY 363, (or approved equivalents) may be taken concurrently with certain program courses.

Education Specialist Degree Requirements

The education specialist degree in school psychology is granted to the candidate upon completion of 102 quarter hours of coursework. The following courses (or approved equivalents) are required:

Required Courses

- EDSE 512 - Educational Rights of Individuals with Disabilities **Credits:** (3)
- PSY 501 - Professional Seminar in School Psychology **Credits:** (3)
- PSY 525 - Psychology of Reading **Credits:** (3)
- **OR** EDLT 525 - Psychology of Reading **Credits:** (3)
- PSY 551 - Applied Behavior Analysis **Credits:** (4)
- PSY 552 - Human Growth and Development, Advanced **Credits:** (4)
- PSY 554 - Behavioral Assessment and Observation **Credits:** (4)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 556 - Academic Assessment **Credits:** (5)
- PSY 557 - Behavioral Interventions **Credits:** (3)
- PSY 559 - Advanced Educational Psychology **Credits:** (4)

- PSY 560 - Theories and Practice of Counseling **Credits:** (4)
- PSY 564 - Intellectual Assessment **Credits:** (5)
- PSY 566 - Behavioral and Social-Emotional Assessment **Credits:** (5)
- PSY 567 - Counseling and Assessment: Children and Adolescents **Credits:** (4)
- PSY 574 - Multicultural Counseling and Assessment **Credits:** (4)
- PSY 575 - School-Based Interventions **Credits:** (4)
- PSY 577 - Interviewing Skills for School Psychologists **Credits:** (4)
- **OR** PSY 593A - Practicum in Counseling I: Interviewing **Credits:** (4)
- PSY 578 - Applied Clinical Neuroscience **Credits:** (4)
- PSY 583 - Consultation **Credits:** (3)
- PSY 584 - Behavior Disorders and Psychopathology **Credits:** (4)
- PSY 592A - Practicum in School Psychology **Credits:** (1-3) (Must be taken for a minimum of 3 credits.)
- PSY 592B - Practicum in School Psychology **Credits:** (1-3) (Must be taken for a minimum of 3 credits.)
- PSY 683 - School Psychology Internship **Credits:** (5-15) (12 credits required; one public school year, minimum 1,200 clock hours)
- PSY 700S - Master's Thesis/Project in School Psychology **Credits:** (1-6) (Must be taken for 6 credits)
- **OR** PSY 595 - Graduate Research **Credits:** (1-10) (Must be taken for a minimum of 3 credits.) **AND** At least 3 credits of approved graduate electives

Total Credits: 102

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

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 master of education, Science Education Program is on reserve and may be offered subject to program needs. Applications for the program are not being accepted at the present time. However, our faculty work closely with other programs on campus that do offer master's degrees. It is possible to earn a master's degree in another program (i.e., Master Teacher) with a focus on science education.

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.

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 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, statistics

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 does not offer any graduate programs at this time.

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

Students must choose one of two specializations: theatre production or theatre studies.

Theatre Studies

The theatre studies specialization is specifically designed for students with career goals in dramaturgy, teaching in higher education, or pursuing a PhD in theatre history, research, literature, or criticism. The program is designed to build the research and analytical skills needed for an academic career in theatre. This Resident Program focuses on the dramaturgical aspects of production, as well as individual scholarly interests related to theatre arts. With opportunities to both teach and undertake research projects in theatre, this program offers the perfect blend of pedagogy and theory needed to prepare students for careers as theatre scholars.

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Out-of-state tuition waivers are also available to qualified candidates.

Theatre Production

The theatre production specialization is specifically designed for the working middle and secondary school teacher who produces plays and would like to obtain an advanced degree through hands-on courses in a program offered entirely during the summer months, within the context of the Summer Institute for Theatre Arts. Options of a blend of summer and academic year models are options, under advisement of the department. This may make the earning of an MA possible in an eighteen-month period.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair.

Assistantship applications must be completed by February 16 in order to insure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

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 Arts MA, Theatre Production Specialization

Theatre Production

The theatre production specialization is specifically designed for the working teacher who produces plays and would like to obtain an advanced degree through hands-on

courses.

This program is specifically designed around the students work schedule with courses offered annually in July and a culminating project at the home school. The option of completing part of the course work during the academic year to complete the degree in a more expedited manner is also an option of qualified students. Since it was established in 1996, teachers representing 27 states and 12 nations have attended this unique limited-residency graduate program. Students join more than 45 other students each summer learning new skills to take back to the classroom and networking with other theatre artists and educators.

Most graduate courses supporting the theatre production specialization are offered over three summer sessions through the Summer Institute for Theatre Arts. Introductory courses are delivered online during the term prior to the summer session in which the student has been admitted.

Housing for summer institute participants is available in nearby university accommodations.

Admission Requirements

Theatre Production Specialization

Incoming candidates are expected to meet both the requirements for admission to the CWU School of Graduate Studies and the following program requirements:

- Two years of teaching experience or two years of professional theatre experience earned in preparation for teaching
- If the candidate does not hold a bachelor's degree in theatre - a conditional admission will be extended and reviewed after the first year of study.

Neither the GRE nor a foreign language is required for the theatre production specialization.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair. No assistantship covers summer programs.

Assistantship applications must be completed by February 16 in order to insure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

Theatre Arts MA Core

Required Core

- TH 501 - Introduction to Graduate Studies **Credits:** (1)
- TH 510 - Theatre Literature, Theory and Criticism I **Credits:** (4)
- TH 511 - Theatre Literature, Theory and Criticism II **Credits:** (4)
- TH 700 - Master's Thesis Project **Credits:** (1-6)
(Must be taken for 4 credits.)

Total Required Core Credits: 13

Theatre Production Specialization

The theatre production specialization is designed to prepare teachers to teach and produce theatre. Courses include the study of theatre technology, acting and movement skills, literature and theory, in the context of theatre history, supervised practice in directing plays, musicals, and pedagogical theory.

The program is offered almost entirely in the summer months within the context of the Summer Institute for Theatre Arts. Some graduate study is available during the regular school year. It should be noted that students will be required to register for thesis credits during the academic year. Residency requirement for this program is fulfilled over three summers.

Program Requirements

A minimum of 45 credits is required for the theatre production specialization. The creative project (thesis) required is a full production of a play or musical at an approved outside venue - usually the candidate's school, with written documentation, director's book, and video submitted to the department. The candidate's graduate committee which consists of three faculty members selected by the candidate, will select a member, usually the chair, who will view the production in performance at the candidate's venue. An oral examination and defense of the creative project (thesis) is required and is scheduled the quarter following the realized project. The oral exam/project defense can be held on campus or via electronic conferencing through a committee-approved provider such as Skype or Google Hangout.

A maximum of 15 graduate credits earned within the previous four years at CWU may be applied to the program. The department and the university reserve the right to determine the acceptability of other transfer credit from any institution; a maximum of 9 credits can be accepted from other institutions.

Theatre Endorsement in Washington State

Meeting the state standards, under department advisement, is required to fulfill the theatre endorsement in Washington State. To earn the Washington State endorsement in Theatre the candidate must successfully complete all the standards set forth by the state - this is documented by successful completion of all Theatre Production program requirements, or evaluations, creative project and oral

examination - and successfully pass the WEST-E examination. The Praxis or equivalent test may be required to complete certification in other states.

In addition to the MA Theatre core of 13 credits, the student must complete the following:

Required Courses

- TH 502 - Introduction to the Creative Project **Credits:** (1)
- TH 523 - Introduction to Theatre Pedagogy **Credits:** (3)
- TH 536 - Stage Movement **Credits:** (3)
- TH 540 - Contemporary Directing **Credits:** (3)
- TH 541 - Styles in Acting and Directing **Credits:** (3)
- TH 542 - Musical Theatre Directing **Credits:** (4)
- TH 556 - Sound Methods **Credits:** (3)
- TH 565 - Costume and Makeup Methods **Credits:** (3)
- TH 568 - Lighting Methods **Credits:** (3)
- TH 571 - Design Methodology **Credits:** (3)
- TH 583 - Scenic and Property Methods **Credits:** (3)

Total Required Courses Credits: 32

Total Credits: 45

College and Department Information

Theatre Arts Department
College of Arts and Humanities

Theatre Arts MA, Theatre Studies Specialization

Theatre Studies

The theatre studies specialization is specifically designed for students with career goals in dramaturgy, teaching in higher education, or pursuing a PhD in theatre history, research, literature, or criticism. The program is designed to build the research and analytical skills needed for an academic career in theatre. This Resident Program focuses on the dramaturgical aspects of production, as well as individual scholarly interests related to theatre arts. With opportunities to both teach and undertake research projects in theatre, this program offers the perfect blend of pedagogy and theory needed to prepare students for careers as theatre scholars. A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Out-of-state tuition waivers are also available to qualified candidates.

General Requirements of the Program

Students will complete a thesis/project or comprehensive examination. See the student handbook for more information on policies and procedures.

Thesis: This option is appropriate for those who wish to pursue a PhD, either immediately after receiving the MA or at some point in the future. A thesis is a lengthy monographic work (usually 50 to 150 pages long) that addresses a topic of importance to theatre scholars in an original way.

Written examination: This option consists of an eight-hour written exam given at the end of one's graduate career. It is designed for students who do not plan to pursue a PhD in theatre.

Admission Requirements Theatre Studies Specialization

Incoming candidates are expected to meet both the requirements for admission to the graduate programs at Central and the following requirements:

- A writing sample, preferably in the discipline, of at least five pages.
- Permission of the faculty, which may include prerequisite or background courses.

The GRE is required for admission to this specialization and a foreign language is required as a graduation requirement.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair. No assistantship covers summer programs.

Assistantship applications must be completed by February 16 in order to insure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

Theatre Arts MA Core

Required Core

- TH 501 - Introduction to Graduate Studies **Credits:** (1)
- TH 510 - Theatre Literature, Theory and Criticism I **Credits:** (4)
- TH 511 - Theatre Literature, Theory and Criticism II **Credits:** (4)
- TH 700 - Master's Thesis Project **Credits:** (1-6) (Must be taken for 4 credits.)

Total Required Core Credits: 13

Theatre Studies Specialization

The theatre studies specialization is designed to build the research and analytical skills students will need for academic careers in theatre.

Through opportunities for hands-on dramaturgical experience, teaching, and theatre research, this program offers the perfect blend of theory and practice needed to prepare students for entry into PhD programs, begin teaching careers, and/or professional theatre dramaturgical positions for which they are well qualified.

The program is offered entirely during the academic year requiring a minimum two academic year residency or equivalent.

Program Requirements

A minimum of 45 credits is required for the theatre studies specialization. Thesis credits are included in the minimum. An oral examination and defense of the thesis is required.

In addition to the MA Theatre core of 13 credits, the student must complete the following:

Required Courses

Component 1: Research and History

- TH 505 - Research Methods **Credits:** (2)
- TH 525 - Theatre History Ancients-Renaissance **Credits:** (3)
- TH 526 - Theatre History Renaissance-Modernism **Credits:** (3)
- TH 527 - Theatre History Modernism-Contemporary **Credits:** (3)
- TH 700 - Master's Thesis Project **Credits:** (1-6) (Must be taken for 2 credits, in addition to the 4 credits in the core, for a total of 6 credits.)

Component 2: Dramatic Literature

Select a minimum of 10 credits from the following:

- TH 512 - Studies in Gender Issues **Credits:** (5)
- TH 513 - Studies in World Drama **Credits:** (5)
- TH 514 - Studies in Asian Drama (On reserve as of 9/16/15) **Credits:** (5)
- TH 515 - Studies in Ethnic Drama (On reserve as of 9/16/15) **Credits:** (5)
- TH 518 - Studies in Early Modern Drama **Credits:** (5)
- TH 519 - Studies in Drama and the State (Put on Reserve 9/16/16) **Credits:** (5)
- TH 598 - Special Topics **Credits:** (1-6)
- TH 599 - Seminar **Credits:** (1-5)

Component 3: Focal Area

Select a minimum of 9 credits of the following:

- TH 540 - Contemporary Directing **Credits:** (3)
- TH 541 - Styles in Acting and Directing **Credits:** (3)
- TH 587 - Theatre Pedagogy **Credits:** (4)
- TH 588 - Dramaturgy **Credits:** (3)
- TH 589 - International Applied Studies **Credits:** (1-6)
- TH 593 - Dramaturgical Practicum **Credits:** (1-3)
- TH 599 - Seminar **Credits:** (1-5)

Component 4: Foreign Language

In order to place students in the best position possible for entry into nationally recognized PhD programs, a minimum of two years of at least one foreign language at the undergraduate level with a minimum grade of B or higher in all terms is required. This may be completed prior to admission or while enrolled in the Theatre Studies Program.

Total Required Courses Credits: 32

Total Credits: 45

College and Department Information

Theatre Arts Department
College of Arts and Humanities

World Languages and Cultures Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 102
Mail Stop 7552

509-963-1218
wlang_dept@cwu.edu
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 does not offer any graduate programs at this time.

Course Descriptions

ACCT 505. 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. Prerequisite: admission to the Master of Professional Accountancy Program. 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 and management 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 profitabilityanalysis Custome 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 Graduate: Communicate the results of a case or their analysis of a problem

ACCT 530. 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. Prerequisite: admission to the Master of Professional Accountancy Program. 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. Communicate the results of an audit case or their analysis of an audit problem.

ACCT 546. Income Tax Accounting II (5). Taxation of trusts and estates, gratuitous transfers, and the formation and termination of corporations and partnerships, with emphasis on tax compliance, planning, and computer-based tax research. ACCT 446 and ACCT 546 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program. 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. Graduate students will be able to communicate their tax analysis in written and/or through a presentation.

ACCT 550. Advanced Accounting (5). Accounting theory and practice for business, combinations and consolidated financial statements, foreign currency transactions and translations, partnerships, and advanced special topics. ACCT 450 and ACCT 550 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program. Upon successful completion of this course, the student will be able to: Prepare consolidated financial statements (includes outside ownership and intra-entity asset transactions) Work with foreign currency transactions and hedging Translate foreign currency financial statements Prepare financial statements for partnerships Graduate students will communicate their case and/or problem analysis

ACCT 550A. Advanced Accounting Lab (1). Builds on accounting issues covered in ACCT 550. Provides hands-on experience with digital resources used to

research, analyze, and communicate resolutions to the various constituencies served by accounting professionals. Grade will either be S or U. Course will be offered every year (Fall). Co-requisite: ACCT 550.

Upon successful completion of this course, the student will be able to: Demonstrate the ability to research the relevant authoritative literature to analyze current issues.

Analyze the research results including, as appropriate, the financial implications.

Communicate the results of the research and analysis to various constituencies.

ACCT 555. 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; student may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program. Upon successful completion of this course, the student will be able to: Explain the objectives and processes of each accounting transaction cycle and interpret flowcharts and other graphical documentation of those cycles.

Apply the requirements and specifications of COSO and related official pronouncements regarding the design and implementation of internal controls.

Identify the key components and processes of manual and computerized accounting information systems.

Identify current issues and emerging technologies that affect the evolution of accounting information systems in a global economy mediated by networked digital technologies.

Graduate students will communicate their case and/or problem analysis of various accounting information issues.

ACCT 561. 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. Prerequisite: admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to: Explain each element of the fraud triangle.

Identify the types of fraud from different scenarios.

Interview an individual suspected of fraud and request a signed confession.

Properly collect and preserve fraud examination evidence for trial.

Prepare a fraud report

Graduate students will be able to communicate their case and/or fraud assessment.

ACCT 565. Current Issues in Information Technologies (5).

Current issues in information technologies and their relevance for accounting professionals.

Prerequisite: admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to:

Apply information technology principles correctly in an accounting environment.

Evaluate information technology decisions in an accounting environment.

Write communications that are well organized, developed, and expressed in an accounting environment.

ACCT 575. 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. Prerequisite: admission to the Master of Professional Accountancy Program.

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

Graduate students will communicate their case or project analysis

ACCT 583. Seminar Auditing (5).

Use of case analysis and other techniques to develop auditing analysis and decision-making skills. Study of AICPA Professional Standards. By permission.

Prerequisite: admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to:

Apply generally accepted auditing standards correctly in the areas of obtaining and documenting

substantive testing evidence,

reviewing and documenting engagement conclusions, and

preparing audit communications.

Research and prescribe appropriate generally accepted auditing

standards in the areas of obtaining and documenting substantive testing

evidence, reviewing and documenting engagements,

and preparing audit communications.

Evaluate the proper application of generally accepted auditing

standards in the areas of obtaining and documenting substantive testing

evidence, reviewing and documenting engagement

conclusions, and preparing audit communications.

Write communications that are well organized, developed, and

expressed in the areas of obtaining and documenting substantive testing

evidence, reviewing and documenting engagement

conclusions, and preparing audit communications.

ACCT 583A. Seminar in Auditing Lab (1).

Builds on audit issues covered in ACCT 560. Provides

hands-on experience with digital resources used to research, analyze,

and communicate resolutions to the various constituencies served by

audit professionals. Grade will either be S or U. Course will be

offered every year (Spring). Co-requisite: ACCT 583.

Upon successful completion of this course, the student will be able to: Demonstrate the ability to research the relevant authoritative literature to analyze current issues.

Analyze the research results including, as appropriate, the financial implications.

Communicate the results of the research and analysis to various constituencies.

ACCT 584. 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. Prerequisite:

admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to: Communicate about professional issues in a manner that is appropriate for different audiences. Use computers to perform career-oriented tasks

Discuss the professional responsibilities and challenges in various career paths.

Graduate students will be able to communicate the results of a case or their analysis of a problem.

ACCT 588. Contemporary Issues in Accounting

(5). This course develops a comprehensive understanding of the competencies required of today's accounting professional. A case-study approach is used. Critical thinking and communication skills (oral and written) are an integral component of this course. Prerequisite:

admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to: Identify the significant factors that have changed the Accounting Profession over the past 20 years.

Analyze and review financial and business data by applying the appropriate accounting and business

principle and standard to a financial reporting issue.

Evaluate and make recommendations to typical client accounting, tax and/or business valuation issues encountered in professional practice.

Use critical thinking to identify, explore, and evaluate emerging issues and dilemmas in accounting and business.

ACCT 590. Cooperative

Education (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated up to 5 credits. Grade will either be S or U. Prerequisite:

admission to the Master of Professional Accountancy Program.

ACCT 596. Individual Study (1-6). May be repeated for credit. Grade will either be S or U. Prerequisite: admission to Master of Professional Accountancy Program.

ACCT 598. Special Topics (1-6). May be repeated for credit.

ACCT 599. Seminar (1-5). May be repeated if subject is different.

ACCT 696. Individual Study (1-6). May be repeated if subject is different.

ACCT 698. Special Topics (1-6). May be repeated if subject is different.

ACCT 699. Seminar (1-6). May be repeated if subject is different.

ACCT 700. Master's Thesis, Project Study, and/or Examination (1). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated for credit. Grade will either be S or U. Prerequisite: admission to the Master of Professional Accountancy Program.

ADMG 501. ITAM Boot Camp

(2). Designed to prepare graduate students to the Information Technology and Administrative Management graduate program. The class covers resources, programs, research and case study formats, faculty bios, and study strategies for online, hybrid, and traditional formats.

Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of the university and department resources and program of study requirements

Demonstrate an understanding of the expectations and goals of the ITAM graduate classes

Demonstrate an understanding of important study strategies to complete online, hybrid, or face-to-face courses

Demonstrate an understanding of the significance of information technology and administrative management on today's contemporary organizations

ADMG 525. Global Managerial Communications (4). This course introduces students to the importance and need for clear, succinct, and relevant business communications. Students will learn to write and deliver effective messages and will learn to research, purpose, and present business reports. Additionally, students will be introduced to the importance of communications in the digital age. Co- or prerequisite: ADMG 501 .

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 an understanding of emerging technologies in business communication.

Demonstrate an understanding of letter and memoranda formats.

Demonstrate an understanding of researching and writing an analytical business report.

Demonstrate an understanding of researching and writing a business proposal.

Demonstrate an understanding of APA style and format.

Develop and demonstrate proper use of grammar, spelling, word use, and punctuation as applied in business communication.

Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of the university and department resources and program of study requirements

Demonstrate an understanding of the expectations and goals of the ITAM graduate classes

Demonstrate an understanding of important study strategies to complete online, hybrid, or face-to-face courses

Demonstrate an understanding of the significance of information technology and administrative management on today's contemporary organizations

ADMG 525. Global Managerial Communications (4). This course introduces students to the importance and need for clear, succinct, and relevant business communications. Students will learn to write and deliver effective messages and will learn to research, purpose, and present business reports. Additionally, students will be introduced to the importance of communications in the digital age. Co- or prerequisite: ADMG 501 .

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 an understanding of emerging technologies in business communication.

Demonstrate an understanding of letter and memoranda formats.

Demonstrate an understanding of researching and writing an analytical business report.

Demonstrate an understanding of researching and writing a business proposal.

Demonstrate an understanding of APA style and format.

Develop and demonstrate proper use of grammar, spelling, word use, and punctuation as applied in business communication.

ADMG 531. Financial Analysis in IT and Administrative Management (4). Addresses the financial analysis functions necessary for an administrative or IT manager to make intelligent financial decisions and communicate effectively with financial professions. Includes

Upon successful completion of this course, the student will be able to:

Demonstrate an understanding of the university and department resources and program of study requirements

Demonstrate an understanding of the expectations and goals of the ITAM graduate classes

Demonstrate an understanding of important study strategies to complete online, hybrid, or face-to-face courses

Demonstrate an understanding of the significance of information technology and administrative management on today's contemporary organizations

ADMG 531. Financial Analysis in IT and Administrative Management (4). Addresses the financial analysis functions necessary for an administrative or IT manager to make intelligent financial decisions and communicate effectively with financial professions. Includes

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 an understanding of emerging technologies in business communication.

Demonstrate an understanding of letter and memoranda formats.

Demonstrate an understanding of researching and writing an analytical business report.

Demonstrate an understanding of researching and writing a business proposal.

Demonstrate an understanding of APA style and format.

Develop and demonstrate proper use of grammar, spelling, word use, and punctuation as applied in business communication.

understanding financial statements, accounting concepts, ratio analysis, capital budgeting, and working capital. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to:

Identify, define, and apply accounting and financial terminology and concepts

Interpret the effects of various IT organizational transactions on the financial position of the organization

Read, analyze, and evaluate income statements, balance sheets, and cash flow statements and use the findings to make effective IT and administrative management decisions

Calculate and interpret key financial ratios important to IT and administrative managers

Calculate, interpret and apply working capital management techniques in order to optimize cash flow, focusing mainly on the management of inventory and receivables.

Identify, explain, and analyze capital budgeting techniques and the role they play in IT project management, including calculating and interpreting payback, net present value, and the internal rate of return

Use computer technologies to assist in the analysis of and preparation of IT and administrative management financial documents

Communicate effectively with financial professionals, presenting ideas using sound financial principles

Interpret current IT and administrative management financial articles

ADMG 545. Research and Statistical Analysis of Data (4).

Introduces research design and the use of statistical software to collect and analyze data to improve organizational decisions. The focus is on applying statistical tools to find answers to practical IT and administrative management questions. Co- or prerequisite: ADMG 501 .

Upon successful completion of this course, the student will be able to:

Demonstrate, use, and explain basic statistical terms, sampling, distributions, and concepts.

Select and apply appropriate descriptive statistics, measures, and tools to collect and analyze data.

Research and write a literature review.

Properly state, test, and interpret hypotheses.

Develop conclusions and recommendations based on data collection.

Design and implement an action research plan based on organization information needs.

Present an action research project.

ADMG 571. Global

Administrative Policy (4). Looks at global issues in administrative management including advanced administrative management techniques, external and internal forces changing organizations and operations, administrative policy making, cross-cultural communication, IT management, social responsibility and ethics. Co- or prerequisite: ADMG 501 .

Upon successful completion of this course, the student will be able to: Demonstrate applications of various administrative management techniques and functions in global/diversified work environments.

Identify external and internal forces in order to analyze current organizational and operational situations and forecast changes in organizations and operations in global work environments.

Demonstrate applications of various techniques of human resource management in global organization.

Identify various ethical issues in corporate social responsibility (CSR), labor relations, and investor relations in global work environments.

Design self-development plan to be and remain as effective administrative managers in continuing globalization of organization operations.

ADMG 572. Leadership and Supervision (3).

Develop leadership techniques and behavior traits to improve productivity of supervisors and leaders in the workplace, while enhancing interpersonal skills for career

success. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Comprehend and apply an overview of major leadership theories.

Articulate and identify the differences between managing and leading.

Identify personal traits and characteristics associated with effective leaders (e.g. Big 5, Emotional Intelligence) applied to dyadic, team, and organizational relationships.

Through the use of the Type-Focus (MBTI Myers-Briggs Type Indicator) and classroom activities, enable students to assess, explore and apply their leadership potential through the interaction of their personality preferences, conflict resolution style, world-view, and core values.

Comprehend and apply the mechanisms that enhance positive morale.

Comprehend and apply the mechanisms that enhance the effectiveness of 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/assumptions, strategic planning, and assessment. Assess and apply change theory related to organizations.

Using the instructor and an example, observe and facilitate problem-solving, and conflict resolution with direct reports, co-workers, and supervisors.

Articulate the benefits of cultural competency and diversity in the workplace.

Articulate and apply progressive discipline guidelines. Practice and evaluate individual inter-personal skills for career effectiveness.

ADMG 573. Global Leadership and Supervision (4).

Presents an overview of effective international leadership concepts and techniques in three areas; Self Development, Team Development, and Supervisory Development. Students

will be introduces to concepts and techniques as they relate to understanding leadership and supervision. Co- or prerequisite: ADMG 501 .

Upon successful completion of this course, the student will be able to: Assess, explore and apply their leadership potential by understanding his or her personality preferences, conflict resolution style, world-view, and core values. Learn major leadership theories and develop the ability to recognize what theories are applicable to be effective in a real-world global work environment. Effectively develop and apply techniques that build a positive organizational climate, build effective teams, and identify techniques which build individual morale and efficiency in the workplace. Examine theory, research, and practices that are relevant to organizational effectiveness, leadership, supervision, and change. Articulate and apply progressive reward and discipline guidelines using comprehensive and apply an overview of major leadership theories.

Develop a personal five year leadership growth plan and Leadership Philosophy. Use APA (7th ed.) format in writing and business communications.

ADMG 574. Global Project Management (4). Examines project management in a variety of global organizational settings. This course covers the history, current practice, and future directions of Project Management in this increasingly project-oriented global world. Co- or prerequisite: ADMG 501 .

Upon successful completion of this course, the student will be able to: Demonstrate understanding of factors that impact global project management

Specify appropriate system development models for projects Evaluate and select the best project candidate among multiple proposed projects

Apply project management methods and processes to global cases and current events

Specify triple constraints of global projects using international standard PM techniques

Identify quality metrics and perform quality assurance and control

Perform project progress monitoring and controlling

Promote virtual team building, development, and communication in a global environment

Identify the pros and cons of global procurement

ADMG 590. Cooperative Education (1-8). An individualized contracted field experience with IT and ADMG organizations, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated up to 8 credits. Grade will either be S or U. Prerequisite: by permission of instructor .

ADMG 592. Practicum (1-6). Supervised field experience, must also add additional elective graduate class. Prerequisite: by permission of instructor .

ADMG 596. Individual Study (1-6).

ADMG 598. Special Topics (1-6).

ADMG 631. Organizational Development (4). An in-depth study of organizational dynamics, as applied to organization-wide interventions, designed to improve organization functioning and to implement change in the organization. Includes developing and improving organizations through assessment and diagnosis of culture and processes. Co- or prerequisite: ADMG 501 .

Upon successful completion of this course, the student will be able to: Identify and apply organizational design concepts

Analyze an organization and its culture, and synthesize the data of the analysis by diagnosing appreciation for, and issues with, systems, sub-units, and processes

Demonstrate an ability to manage the seven phases of Organizational Development programs Customize and apply an OD change intervention

During the process of team interventions, students will develop the ability to recognize, identify and

select individuals with "leader talent"

ADMG 641. Innovation and Entrepreneurial Growth (4).

Examines various approaches to developing IT innovation-based organizations to self-sufficiency and growth. Addresses the specifics of new IT products and services development and fostering innovation and technology to increase performance. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: Identify innovation in IT and Administrative Management, what it is and why it matters and the theories of innovation, disruptive technologies

Identify innovation as a core organizational process with effective innovation management abilities and routines

Evaluate and select innovation strategies, appropriating the benefits from innovation, technology trajectories and competencies

Identify the sources of innovation and tools to enable innovation search

Demonstrate applications of strategic innovations

Develop conceptual IT products including commercial technological products and service innovation

Identify the benefits of innovation

Design organizational knowledge processes, knowledge management architecture and technologies

ADMG 654. Applied Customer Relationship Management (CRM)

(4). This course examines customer relationship management (CRM) and the customer-driven practices that enable and organization to attract, satisfy, and retain customers profitably. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: Identify the key concepts, technologies and best practices of CRM

Identify the factors that drive customer value and link it to company performance

Identify the different CRM technology solutions

Identify the appropriate IT applications to measure and manage customer value

Develop analytic procedures for optimizing customer value
Identify relevant enterprise analytics and intelligence software

ADMG 681. Social Informatics

(4). Focuses on the critical analysis of social, cultural, philosophical, ethical, legal, public policy and economic issues relating to information technologies. Students examine the roles of information technology in social and organizational change. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to:
Analyze social aspects of information technology including benefits and drawbacks of technology implementation
Identify approaches to resolving social dilemmas surrounding information technology development, decision-making and use

Describe the value of social informatics in professional and intellectual disciplines

Demonstrate new information technologies in such a way as to convey both the social assumptions built into the system and potential impacts of the system on social relations, work life and productivity
Understand the complexity of technologically mediated social interaction environments

ADMG 689. Capstone Written Project

(4). Serves as a means to distill the recurring themes and issues presented throughout the graduate program and creates a product that will contribute to the solution of real-world problems and concerns in the area of

Administrative Management. Co- or prerequisites: ADMG 501 and ADMG 525.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the knowledge and skills acquired in their courses to a specific problem or issue.

Incorporate their academic experience into areas of personal interest, working with new ideas, issues, organizations, and individuals.

Refine their research skills and demonstrate their proficiency in

written and/or oral communication skills.

Create a final capstone written project in preparation for the thesis, project, or practicum.

Demonstrate their achievement of the ITAM program of study outcomes and their ability to extend and refine this knowledge and skill in the realization of their personal and professional goals.

ADMG 696. Individual Study (1-6). May be repeated if subject is different.

ADMG 698. Special Topics (1-6). May be repeated if subject is different.

ADMG 699. Seminar (1-6). May be repeated if subject is different.

ADMG 700. Master's Thesis, Project Study and/or

Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

ANTH 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

ANTH 521. Cultural Resources Management (3). Philosophy, history, and legislation relating to archaeology and historic preservation; design and implementation of cultural resources management programs.

ANTH 527. 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. Graduate credit requires an additional research paper to be specified in syllabus.

ANTH 596. Individual Study (1-6). May be repeated for credit.

ANTH 598. Special Topics (1-6). May be repeated if subject is different.

ANTH 599. Seminar (1-5). May be repeated if subject is different.

ANTH 696. Individual Study (1-6). May be repeated if subject is different.

ANTH 698. Special Topics (1-6). May be repeated if subject is different.

ANTH 699. Seminar (1-6). May be repeated if subject is different.

ART 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

ART 525. Advanced Studies in Photography (1-10). Independent, advanced exploration of Photography. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit.

Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

Upon successful completion of this course, the student will be able to:
Produce photography projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.

Analyze critical theory and contemporary issues in relation to individual practice of photography.

Justify work in oral critique/discussion.

Assess individual creative development.

Critique the creative work of others.

ART 541. Advanced Studies in Wood (1-10). Independent, advanced exploration of Wood Design. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

Upon successful completion of this course, the student will be able to:

Produce wood design projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of wood design.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 546. Advanced Studies in Jewelry and Metalsmithing (1-10). Independent, advanced exploration of Jewelry and Metalsmithing. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Produce jewelry and metalsmithing projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of jewelry and metalsmithing.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 550. Advanced Studies in Drawing (1-10). Independent, advanced exploration of Drawing. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Produce drawing projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of drawing.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 560. Advanced Studies in Painting (1-10). Independent, advanced exploration of painting. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Produce painting projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of painting.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 565. Advanced Studies in Ceramics (1-10). Independent, advanced exploration of Ceramics. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Produce ceramics projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of ceramics.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 570. Advanced Studies in Graphic Design (1-10). Independent, advanced exploration of graphic design. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:

Produce graphic design projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of graphic design.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 580. Advanced Studies in Sculpture (1-10). Independent, advanced exploration of sculpture. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).
Upon successful completion of this course, the student will be able to:
Produce sculpture projects that demonstrate technical competence, conceptual strength and artistic distinctiveness.
Analyze critical theory and contemporary issues in relation to individual practice of sculpture.
Justify work in oral critique/discussion.
Assess individual creative development.
Critique the creative work of others.

ART 585. Seminar in Contemporary Art (3). An in-depth study of selected topics focusing on contemporary art, critical methodology and how current issues relate to the role of the artist as a producer of visual culture. Prerequisite: ART 414.
Upon successful completion of this course, the student will be able to:
Summarize and analyze theoretical developments affecting contemporary art
Judge how developments in theory and artistic practices relate to social, economic, technological and political developments
Evaluate and measure the influence of theoretical constructs to growth of contemporary artists
Choose advanced theoretical concepts to incorporate into their own creative process
Evaluate current scholarship regarding contemporary art

ART 589. Art Concepts and Criticism (3). Study of the attitudes and values in relation to recent changes in art forms and contents. Analysis and practice in critical judgment.

ART 596. Individual Study (1-6). May be repeated for credit.

ART 598. Special Topics (1-6). May be repeated for credit.

ART 599. Seminar (1-5). May be repeated for credit.

ART 696. Individual Study (1-6). May be repeated if subject is different.

ART 698. Special Topics (1-6). May be repeated if subject is different.

ART 699. Seminar (1-6). May be repeated if subject is different.

ART 700. Master's Thesis, Project Study, and/or Examination (1-12). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated for credit not to exceed 6 credits for MA degree and 12 credits for MFA degree. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

BIOL 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

BIOL 501. Research Methods and Techniques (4). An introduction to methods, techniques, and procedures commonly used in biological research. Experimental design of research projects will be emphasized.

Upon successful completion of this course, the student will be able to: Investigate, evaluate, and synthesize a wide array of current and historic biological scientific literature sources.

Construct testable scientific hypotheses based on observations and inferences.

Apply appropriate scientific procedures to test hypotheses.

Apply principles of data analysis (including statistics), avoid misinterpretation and misuse of data analyses, and identify and use suitable data analysis tools.

Present scientific ideas clearly and concisely in writing, and revise own scientific writing based on standard scientific writing models (e.g., CBE Manual, Chicago Manual of Style). Construct quality figures and tables from original data sets and recognize common problems in data presentation

BIOL 502. Research Proposal Presentations (2). Students will work to develop their thesis proposal, present their proposal orally, and submit a formal written proposal. Prerequisite: BIOL 501. Upon successful completion of this course, the student will be able to: Design an original, effective study to address a particular biological question or hypothesis.

Prepare and effectively present a research proposal in oral format. Analyze and critique research proposed by others.

BIOL 505. Current Topics in Biology (2). Discussion of specific topics in biology from readings in journals, books, and other materials. May be repeated up to 10 credits.

Prerequisite: graduate standing. Upon successful completion of this course, the student will be able to: Critically evaluate primary or secondary literature in biology.

Use effective oral communication skills in the sciences. Identify and summarize current topics in biology.

Use effective written communication skills in the sciences

BIOL 513. 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)

513 only: Visualize, analyze, and present findings from a unique, complex dataset (513)

BIOL 528. 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 are layered courses; a student 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. Provide examples of dietary factors that influence gene expression patterns.

Plan an experiment to detect diet sensitive variation using appropriate techniques (e.g., transgenic animals and cells, Quantitative PCR, promoter assays, chromatin immunoprecipitation, oligonucleotide and protein microarrays, bioinformatics, Biostatistics, pathway reconstruction programs) Apply bioinformatics tools to analyze nutrigenomic data.

In addition, graduate students will be able to relate epigenetic patterns to diet and gene expression patterns. In addition, graduate students will be able to relate gut microbiome flora to diet, SNP patterns and gene expression.

BIOL 535. 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.

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.

Select from highly rated journals a recently published article (3-year-old max) containing relevant flow cytometry data and discuss the findings reported

BIOL 565. Advanced Animal Behavior (5). Advanced knowledge in the study of animal behavior. Three hours lecture, two hours laboratory, one hour independent study per week. BIOL 465, BIOL 565 and PSY 565 are cross-listed courses; students may not receive credit for more than one.

BIOL 566. 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 and graduate standing.

BIOL 590. Cooperative Education (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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 592. Biological Field Studies (1-15). Individual or group off-campus experience in the field study of biological phenomena. May be repeated for up to 15 credits. Grade will either be S or U.

BIOL 595. Graduate Research (1-10). Organization or conduct of an approved laboratory and/or field research problem. By permission. Maximum of 10 credits may be included on course of study for the master's degree.

BIOL 596. Individual Study (1-6). May be repeated for credit.

BIOL 598. Special Topics (1-6). May be repeated for credit.

BIOL 599. Seminar (1-5). Discussion of specific topics from readings in biological journals, books, and other materials. May be repeated up to 5 credits.

BIOL 602. Research Presentations (2). Student will discuss and develop effective oral presentation skills, prepare their research results for presentation, and give an oral presentation suitable for regional or national scientific meetings. Prerequisite: BIOL 502.

Upon successful completion of this course, the student will be able to: Orally present research result at a level suitable for regional or national meetings.

List characteristics of effective oral research presentations and identify weaknesses.

BIOL 696. Individual Study (1-6). May be repeated if subject is different.

BIOL 698. Special Topics (1-6). May be repeated if subject is different.

BIOL 699. Seminar (1-6). May be repeated if subject is different.

BIOL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, public presentation, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

BUS 541. 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: admittance to a College of Business Graduate Program.

Upon successful completion of this course, the student will be able to: Critically analyze new reports of current legal proceedings and issues related to material covered in the course.

Analyze the meaning of selected judicial cases including the management implications of legal rules drawn from those cases.

Demonstrate knowledge of contemporary legal issues relating to international business negotiable instruments, debtor-creditor relationships and business organizations.

Develop competence in one area of the law studied in depth to become subject matter expert.

BUS 541A. Advanced Business Law Lab (1). Builds on legal issues covered in BUS 541. Provides hands-on experience with digital resources used to research, analyze, and communicate resolutions to the various constituencies served by accounting professionals. Grade will either be S or U. Course will be offered every year (Winter). Co-requisite: BUS 541.

Upon successful completion of this course, the student will be able to: Demonstrate the ability to research the relevant authoritative literature to analyze current issues.

Analyze the research results including, as appropriate, the financial implications.

Communicate the results of the research and analysis to various constituencies.

BUS 596. Individual Study (1-6). May be repeated if subject is different.

BUS 598. Special Topics (1-6). May be repeated if topic is different.

BUS 599. Seminar (1-5). May be repeated if subject is different.

BUS 696. Individual Study (1-6). May be repeated if subject is different.

BUS 698. Special Topics (1-6). May be repeated if subject is different.

BUS 699. Seminar (1-6). May be repeated if subject is different.

CHEM 500. Professional Development (1-5). Development topics and issues for in service and continuing education of professionals. Not applicable to degrees that are not institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit. Course will not have an established scheduling pattern.

CHEM 503. Introduction to Research (1). An overview of the original research work being done in the Department of Chemistry. Class meetings are comprised of presentations by different faculty members. Grade will either be S or U. Course will not have an established scheduling pattern.

CHEM 505. Current Topics in Chemistry (1). May be repeated for credit when subject matter differs up to 5 credits. Course will not have an established scheduling pattern.

CHEM 511. Advanced Biochemistry (3). A course in advanced biochemical concepts with a special focus on the multiple levels of gene expression regulation and structure-function relationships of protein and nucleic acids. Course will not have an established scheduling pattern. Prerequisites: CHEM 431 or permission of the instructor.

Upon successful completion of this course, the student will be able to: Describe in text or in drawings the different types of regulatory elements in genes.

Describe in text or in drawings the different mechanisms used by cells

to regulate the expression of different genes.

Describe in text or in drawings the different types of protein domains that mediate interactions with nucleic acids or other proteins.

Critically examine and analyze experimental data from scientific literature.

Present findings from published scientific papers to peers.

CHEM 512. Biochemical Toxicology (3). An introduction to the principles of toxicology followed by a survey of the biochemical mechanisms involved in cytotoxicity, including reactive intermediates and their interaction with macromolecules. Course will not have an established scheduling pattern.

CHEM 550. Advanced Analytical Chemistry (3). A 3-credit lecture course that covers advanced topics in analytical chemistry including electrochemistry, separations, spectroscopy, mass spectroscopy, speciation, and advanced statistical techniques applied to analytical chemistry. Course will not have an established scheduling pattern.

Prerequisite: CHEM 383.

Upon successful completion of this course, the student will be able to: Explain the fundamental principles of advanced analytical measurements in spectroscopy, electrochemistry, separations, mass spectroscopy, and speciation.

Use of advanced statistics in the analysis of chemical data.

Propose the appropriate analysis technique when presented with a problem requiring advanced analytical instrumentation.

Discuss recent advances in chemistry in analytical instrumentation for chemical analysis.

HEM 551. Atmospheric Chemistry (3). The chemistry of the stratosphere and troposphere; chemistry of the atmospheric waters; the transport of air pollution; topics of current scientific/societal interest, related to the effects of human activity on air quality and climate, such as chemistry of urban air, particulate matter, and chemistry-climate coupling. Course will not have an

established scheduling pattern.

Prerequisite: CHEM 382.

Upon successful completion of this course, the student will be able to: List the chemical components of the atmosphere.

Draw temperature and pressure profiles of the atmosphere and name each layer.

Identify atmospheric transport mechanisms and describe how they work.

Estimate each contributing factor to the greenhouse effect.

List pertinent reactions involving ozone in the stratosphere and in the troposphere (Smog).

List chemical equilibria that lead to acid rain.

Analyze, synthesize and critique current topic in atmospheric chemistry.

CHEM 561. Organic Reaction Mechanisms (3). Advanced treatment of basic mechanistic principles of modern organic chemistry. Topics may include frontier molecular orbital theory, kinetics, conformational analysis, aromaticity, the chemistry of reactive intermediates, photochemistry, and substitutions. Course will not have an established scheduling pattern. Prerequisites: CHEM 363 or the equivalent, or permission of the instructor.

Upon successful completion of this course, the student will be able to: Relate how valence electrons in frontier molecular orbitals (FMOs) are involved in important bond-formation processes in organic chemistry.

Be able to propose plausible arrow-pushing mechanisms to predict and rationalize the outcome of fundamental synthetic transformations in organic chemistry.

Identify the factors that contribute to the stability and reactivity of stable organic molecules, reactive intermediates, and transition states. Demonstrate a basic understanding of kinetic and thermodynamic concepts as well as how organic reaction mechanisms are determined experimentally.

CHEM 562. Organic Spectroscopy (3). Theory, instrumentation and application of spectroscopic techniques in organic

chemistry. Focus is primarily on interpretation of data in order to fully characterize molecular structure. Course will not have an established scheduling pattern. Upon successful completion of this course, the student will be able to: demonstrate basic knowledge of the theory and applications of optical methods like ultraviolet and infrared spectroscopy, and polarimetry. Students will be engaged in independent projects outside of lecture time that will allow them to gain direct experience in structural identification of organic compounds develop a working knowledge of the theory and practice of mass spectrometry, with an emphasis on Interpretation of results develop a working knowledge of the theory and practice of tandem methods of chromatography/mass spectrometry, with an emphasis on interpretation of results demonstrate a basic knowledge of the theory behind NMR spectroscopy and how theory relates to interpretation of data for 1D and 2D NMR apply concepts of 1D NMR spectroscopy (proton, carbon, and DEPT NMR) to structure determination of organic molecules. Students will also work on independent projects to gain direct experience in the structural identification of organic compounds. dimensional NMR spectroscopy (COSY, HSQC, HMBC, NOESY/ROESY) toward structure determination of simple and complex organic molecules correlate knowledge of organic spectroscopy topics covered in the course with an example from current correlate knowledge of the interpretation of NMR spectroscopy toward practical laboratory 1D & 2D applications. Students will also work on independent projects to gain direct experience in the structural identification of organic compounds.

CHEM 563. Advanced Organic Synthesis (Put on reserve 9/16/15.) (3). Fundamentals of modern synthetic organic chemistry. Major emphasis is on more advanced synthetic transformations and

strategies. Put on reserve 9/16/15. Will go inactive 8/24/18. Course will not have an established scheduling pattern. Prerequisite: CHEM 363 or the equivalent, or permission of the instructor. Upon successful completion of this course, the student will be able to: Access and use online and hard-copy organic chemistry reference resources and be able to choose among available resources for a particular research topic. Provide plausible mechanisms and rationalize the stereo chemical issues present (when applicable) for fundamental and important synthetic transformations in organic chemistry. Identify several disparate retrosynthetic possibilities for a given synthetic target and assess which disconnections among the available choices are better than others and why. Recognize regio-, c-hemo-, and stereoselectivity issues that may influence the plausibility and success of a chosen reaction sequence in a total synthesis endeavor.

Identify key strategies used in the construction of landmark chemical syntheses reported in the literature. **CHEM 564. Medicinal Organic Chemistry** (3). An overview of the drug design and discovery process. A multi-component study of drugs and other biologically potent compounds in terms of chemical synthesis, chemical properties, biochemical evaluation, and substrate-enzyme interaction. Course will not have an established scheduling pattern. Prerequisites: CHEM 363 and CHEM 431 or equivalent or permission of the instructor.

Upon successful completion of this course, the student will be able to: Explain the role of medicinal chemistry and apply the principles learned in chemistry and biology to the Explain the role of medicinal chemistry and apply the principles learned in chemistry and biology to the understanding of the drug discovery process.

Discuss the three-dimensional properties and structural characteristics of organic molecules in drug design and enzyme inhibition.

Determine how individual targets (e.g. enzymes and/or receptors) are identified as good targets, and how that information is translated into chemical lead structures.

Determine the chemical synthesis of biologically active structures.

CHEM 567. Physical Organic Chemistry (3). Advanced study of organic structures, intermediates, and reaction mechanisms.

Techniques presented include thermochemistry, kinetics, linear free energy relationships, isotope effects, and computational methods. Additional topics include radicals, carbenes, and photochemical reactions. Course will be offered on even numbered years. Course will not have an established scheduling pattern. Prerequisite: CHEM 363 and CHEM 382, or the equivalent, or permission of the instructor.

Upon successful completion of this course, the student will be able to: Assess stabilities of organic species using thermochemical methods including group additivity schemes, bond dissociation energies, and computational methods.

Evaluate proposed reaction mechanisms using experimental data including rate laws, isotope effects, and linear free energy relationships.

Propose reasonable pathways for reactions involving radical and carbene intermediates.

Outline pathways for photochemical processes.

Critically examine and analyze experimental data from the physical organic literature.

CHEM 571. Topics in Solid State Chemistry (3). A survey of the structures and properties of inorganic solids: crystallography, X-ray diffraction, phase equilibria, electronic structure and luminescence. Course will not have an established scheduling pattern. Prerequisites: CHEM 350 and CHEM 382.

CHEM 580. Advanced Physical Chemistry (3). A 3-credit lecture course including experimental and theoretical thermodynamics, advanced chemical kinetics, molecular dynamics, transition state theories, atomic and molecular spectra, nanotechnologies. Course will not have an established

scheduling pattern. Prerequisite: CHEM 383.

Upon successful completion of this course, the student will be able to: Explain the fundamental principles in experimental and theoretical thermodynamics.

Analyze complex mechanisms of chemical kinetics.

Explain the uni-, bi-, and/or tri-molecular reaction mechanisms on the microscopic level from the perspective of molecular dynamics. Explain the fundamental principles of transition state theory and variational transition state theory and apply these theories to analyze experimental kinetics data.

Analyze and interpret atomic and molecular spectra.

Discuss the underlying physical chemistry concepts in a selected area of nanomaterials and nanotechnologies.

CHEM 581. Quantum and Computational Chemistry (3). A 3-credit lecture course including quantum mechanical descriptions of translation, rotation, and vibration of microscopic particles, electronic structures of atoms and molecules, Hartree-Fock (HF) and post-HF theories and their applications in the computation of physical and chemical properties of studied matters. Course will not have an established scheduling pattern. Prerequisite: CHEM 383.

Upon successful completion of this course, the student will be able to: Apply quantum mechanical theory to describe and analyze translation, rotation, and vibration of microscopic particles.

Apply quantum mechanical theory to describe and analyze electronic structures of atoms and molecules. Describe the principles and algorithms in the Hartree-Fock (HF) and post-HF theories.

Use computational chemistry software programs widely used in academia and/or industry. Demonstrate knowledge of the recent progress in a selected area of computational chemistry.

CHEM 589. Graduate Student Seminar (2). A one hour professional seminar encompassing a contemporary topic is provided to the department and campus community. May be repeated for

credit. Course will not have an established scheduling pattern.

CHEM 590. Cooperative Education (1-5). May be repeated for credit. Grade will either be S or U.

CHEM 592. Laboratory Experience in Teaching Chemistry (2). Practical experience in teaching chemistry laboratories. An introduction to teaching, teaching philosophies, safety, and hazardous waste management. By permission. May be repeated for credit but only 2 credits may be applied to the chemistry MS degree. Grade will either be S or U. Course will not have an established scheduling pattern.

CHEM 595. Graduate Research (1-10). By permission. May be repeated for credit.

CHEM 596. Individual Study (1-5). By permission. May be repeated for credit.

CHEM 598. Special Topics (1-6). May be repeated for credit.

CHEM 599. Graduate Seminar (1). May be repeated for credit.

CHEM 696. Individual Study (1-6). May be repeated if subject is different.

CHEM 698. Special Topics (1-6). May be repeated if subject is different.

CHEM 699. Seminar (1-6). May be repeated if subject is different.

CHEM 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Course will not have an established scheduling pattern.

COM 501. Advanced Communication Theory (4). Course examines historical and current approaches to communication theory emphasizing contributions of communication studies scholars. Course covers theories of language, systems theory, rules theory, and critical theory.

Upon successful completion of this course, the student will be able to:

Articulate the role of theory in understanding human communication.

Articulate the four theoretical perspectives found in communication: the mechanistic perspective, the psychological perspective, the symbolic perspective, and the pragmatic perspective.

Use communication theories to analyze communication problems and to suggest effective strategies to overcome the problems.

Describe the major applications of communication theory to relationship growth and development.

Use at least two critical theory perspectives to analyze the communication patterns of disadvantaged groups.

Select two distinct cultures, and then compare and contrast at least three differences in cultural communication patterns.

COM 556. Convergent Gaming Research (Put on reserve 9/16/16) (4). This course is a comprehensive look at the use of games in research and methods of researching the games industry. Students will supervise undergraduate research teams, develop unique research agendas, and test research methods in virtual worlds. (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: Learn to use research methods appropriate to studying online and pen and paper games.

Learn to develop theories on behavior associated in a game, or behavior that can be tested with games.

Learn to create research instruments to test theories.

Learn to supervise research projects and to conduct peer review of the works of others.

Develop an understanding of how to write research outcomes.

COM 565. Advanced Theory and Application in Organizational Comm (Put on reserve 9/16/17) (5). An in-depth study of the communication theories and concepts that affect processes relevant to organizational life.

Emphasis placed on structuration,

organizational entry and exit, computer-mediated communication and models of organizational adaptation and growth. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

Upon successful completion of this course, the student will be able to: Articulate and defend a well-informed definition of organizational communication. Analyze the organizing/disorganizing dynamics among structural interpersonal, cultural, technological and systemic communication.

Apply various structural, interpersonal, cultural, technological and systemic approaches to communication to diagnose and solve organizational problems. Apply communication research theory and technology theory to address problems in various organizational contexts.

Manage specific communication processes of the workplace (e.g., employee assimilation, climate, employee development, leadership and change).

COM 569. 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 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 590. 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 up to 8 credits. Grade will either be S or U.

COM 596. Individual Study (1-6).

COM 598. Special Topics (1-5).

May be repeated for credit.

COM 599. Seminar (1-5). May be repeated for credit.

COM 696. Individual Study (1-6). May be repeated if subject is different.

COM 698. Special Topics (1-6). May be repeated if subject is different.

COM 699. Seminar (1-6). May be repeated if subject is different.

CS 528. Advanced Data Structures and Algorithms (4).

This course is a detailed introduction to advanced algorithms and data structures used in the computational science MS program. Prerequisites: CS 301 and MATH 330.

Upon successful completion of this course, the student will be able to: Analyze algorithms.

Demonstrate divide-and-conquer, randomized, sorting, dynamic programming, and greedy algorithms.

Build algorithms using the following data structures: hash tables, binary search trees, red-black trees.

Incorporate elements of NP-completeness in problem solving.

CS 529. Advanced Algorithms for Scientific Computing (4). The course presents specialized algorithms and data structures for scientific computing and it a continuation of CS 528.

Prerequisite: CS 528.

Upon successful completion of this course, the student will be able to:

Identify advanced data structures: B-trees, Fibonacci heaps, van Emde Boas trees, disjoint sets.

Demonstrate concern for complexity of graph matching and string matching algorithms.

Incorporate linear programming algorithms and applications.

Discuss the importance of approximation algorithms.

CS 530. High-Performance Computing (4).

This course will provide foundations and concepts on high-performance computing. It provides an overview of computer hardware, software, and numerical methods that are useful on scientific workstations, massively parallel architectures, and supercomputers. Prerequisite: CS 528.

Upon successful completion of this course, the student will be able to: Discuss the importance of scientific programming languages.

Use scientific programming in various applications on supercomputers, scientific workstations, and parallel/distributed architectures. Demonstrate the utility of cluster computing.

Identify the importance of P2P computing for scientific programming.

CS 540. Algorithms for Biological Data Analysis (4). The course introduces the algorithms used in bioinformatics. Prerequisite: CS 529.

Upon successful completion of this course, the student will be able to:

Categorize biological pattern analysis through pattern matching.

Evaluate genomic problems and choose and employ an appropriate solution technique (e.g., patterns alignment, gradient descent, or expectation maximization). Design and implement probabilistic graphical models using Bayesian inference and Bayesian analysis.

Implement and evaluate Markov Chain solutions using a Hidden Markov Model.

Evaluate Markov Chain Monte-Carlo methods as a means of applying stochastic simulation in bioinformatics.

CS 545. Data and Information Visualization (4).

Data visualization includes the visualization pipeline, basic and

advanced data representations, fundamental and advanced visualization algorithms, visualization on the web, applications and software tools. CS 545 and CS 445 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 basic and advanced visual data representations

Create effective operational models for knowledge of fundamental and advanced visualization algorithms Quantify visualization frameworks for web visualization applications.

CS 556. 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. Prerequisite: CS 529.

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 557. 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). Prerequisite: CS 528.

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.

Lead group discussions pertaining to building neural classifiers and pattern recognition models.

[graduate level]

Prepare presentation for demonstrating basic concepts of learning, classification, pattern recognition, memory, and logical operations. [graduate level]

Research and present information pertaining to associative memories and their use in clustering, classification, and visualization of very large data sets. [graduate level]

CS 565. Scientific Computing (4).

A hands-on approach, application oriented. Topics include optimization, mathematical modeling, simulations, numerical computation, and data visualization. Formerly MATH 565, students may not receive credit for both.

Prerequisites: CS 301 or undergraduate students may enroll with the permission of the instructor.

Upon successful completion of this course, the student will be able to:

Evaluate prevalent optimization, modeling, simulation, numerical computational, and visualizing tools in use in industry and the sciences. Assess the use of mathematical and computational modeling in solving complex problems in industry and the sciences.

Appraise the value of prevalent algorithms and programs use of simplifications and dimensionality reduction techniques.

Formulate and defend a high-level approach for numerically solving a novel computational task.

Rate a high-level approach for numerically solving a novel computational task.

CS 567. Computational Statistics (4).

Applications of statistics for the computational sciences, including data mining, big data analytics, financial analysis, and signal processing. Formerly MATH 567, students may not receive credit for both. Prerequisites: CS 301 or undergraduate students may enroll with the permission of the instructor.

Upon successful completion of this course, the student will be able to:

Analyze data using statistically based data mining and big data analysis techniques.

Assess the ability of statistically based inference to extract and aggregate information from large datasets.

Employ statistical methods for extracting pertinent data from large and noisy datasets.

Evaluate efficacy of existing statistical tools for extracting useful information from complex data sets in a scalable way.

Formulate and defend plan for extracting pertinent data from otherwise large and noisy datasets using available tools.

Rate plan for extracting pertinent data from otherwise large and noisy datasets using available tools.

CS 573. Parallel Computing (4).

Major parallel architectures and languages. Parallel programming methodologies and applications. CS 473 and CS 573 are equivalent courses; students may not receive credit for both. Prerequisite: CS 528.

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 589. Research Seminar (2). A one-hour professional seminar encompassing a recent CS topic is provided by the student to the department and campus community using LaTeX (Beamer) generated slides. The student also submits a technical report in LaTeX. Grade will either be S or U. Course will be offered every year (Fall). Upon successful completion of this course, the student will be able to: Identify one actual computational science problem. Prepare a public presentation, using LaTeX (Beamer) generated slides, on an advanced computational science topic. Submit a technical report in LaTeX.

CS 595. Graduate Research (1-10). Graduate research activity resulting in a paper (technical report, conference paper, journal paper). By permission. May be repeated up to 10 credits. Upon successful completion of this course, the student will be able to: Communicate information effectively in writing, orally, and graphically. Draft a preliminary research paper in computational science. Write a technical paper in computational science as a result of graduate research activity.

CS 596. Individual Study (1-6). By permission. May be repeated up to 10 credits.

CS 598. Special Topics (1-6). May be repeated if subject is different.

CS 599. Seminar (1-5).

CS 599S. Research Seminar (1). A one-hour professional seminar encompassing a contemporary topic is provided by the student to the department and campus community.

CS 696. Individual Study (1-6). May be repeated if subject is different.

CS 698. Special Topics (1-6). May be repeated if subject is different.

CS 699. Seminar (1-6). May be repeated if subject is different.

CS 700. Thesis/Project (1-5). Preparation of the Thesis/Capstone Project. Prerequisite: permission of the chair of the student's graduate faculty supervisory committee. May be repeated up to 5 credits. Grade will be S or U.

CTE 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

CTE 501. Research Methods (4). An examination of methods of conducting research on human behavior with an emphasis on application to career and technical education. 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: Evaluate published empirical articles in terms of research design, measurement, sampling, and causal inference. Formulate research questions and specific hypotheses appropriate for their research question and drawn from the body of existing research. Conduct a research study by identifying measurement strategies, research designs, and sampling methods appropriate for their research question. Conduct basic statistical analyses using statistical software. Evaluate their research findings and write meaningful results and conclusions based on the analysis. Prepare and effectively deliver a research presentation.

CTE 502. Statistics (4). Introduction to the quantitative statistics in social sciences specific to issues in career and technical education. Topics include conducting analysis using computer software (SPSS), evaluating the results of statistical analysis, and drawing appropriate conclusions. CTE 502, FCSG 502 and FCL 502 are equivalent courses; students may receive credit for only one course. 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 the role of statistics in the research process and hypothesis testing. Determine the appropriate statistical analyses based on research hypotheses. Conduct statistical analyses using statistical software. Understand and interpret output from statistical analyses. Evaluate the results of statistical analyses to draw appropriate conclusions about research hypotheses.

CTE 522. Survey of Research (1-5). The historical, philosophical, and legislative basis of program development and profession growth. CTE 522, FCSG 522, and FS 522 are cross-listed courses; students may not receive credit for both. May be repeated for credit. Upon successful completion of this course, the student will be able to: Examine historical and philosophical foundations of program development. Describe the historical influences which have affected the development of agency programs. Analyze past and current legislation that supports agency programs. Examine the role and organization of the program in the agency or profession. Articulate the mission and integrative focus of the profession. Examine the national and state standards for a program. Analyze a major focus of program research during the past 5 years.

CTE 526. Program Delivery Methods (1-5). Course addresses theories of learning and human development in selecting program delivery strategies and resources. Includes models for management, assessment, evaluation, and public relations. CTE 526 and FCSG 526 are cross-listed courses; students may not receive credit for both. May be repeated for credit. Upon successful completion of this course, the student will be able to: Demonstrate the ability to integrate contemporary issues into program action plans. Identify strategies for integrating leadership development into the program.

Analyze assessment and evaluation strategies appropriate for program
Identify strategies for integrating program content with content from other programs

Apply the management process to department and field settings
Analyze considerations related to long range planning
Analyze a variety of program delivery models
Identify program delivery strategies appropriate for diverse populations

CTE 551. Principles of Career and Technical Education (4-5).

This course addresses the planning and implementation of CTE programs including work and career, leadership development, advisory committees, program promotion, and professional responsibilities.

Upon successful completion of this course, the student will be able to:
Identify the history and philosophy of CTE

Identify how the types and focus of CTE programs have changed over time

Demonstrate the importance of Career and Technical Education programs for a community
Identify trends and issues affecting CTE programs

Identify ways to link academic learning and work-based learning to prepare students for the world of work, advanced training and continued education

Identify career pathways and career cluster requirements at the state and local level

Identify CTE leadership development programs and how they enhance specific CTE programs

Demonstrate the development and use of advisory committees in CTE programs

Identify the personal and professional attributes and leadership skills needed for facilitating CTE programs

Identify ways to market CTE programs and implement and maintain collaborative partnerships with colleagues, communities, businesses, industry and families

CTE 580. Administration (1-5).

The study of the administration and directorship of the laws, trends, issues and agency or program standards. CTE 580 and FCSG 580

are cross-listed courses; students may not receive credit for both. May be repeated for credit.

Upon successful completion of this course, the student will be able to:
Identify the roles and responsibilities of an administrator
Identify processes for developing, implementing, and articulating programs

Identify processes for assessing programs
Identify reporting processes and requirements for programs

CTE 581. Program Resource Management (1-5). Grant writing and the study of the local, state, and federal financing (both revenue and expenditure). CTE 581 and FCSG 581 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

Upon successful completion of this course, the student will be able to:
Identify the fiscal responsibilities of a program administrator

Identify revenue sources for programs
Identify allowable program expenditures

Identify processes for budget development, management, and reporting

Identify strategies to obtain additional program resources in order to allocate and efficiently utilize human, fiscal, and technological resources

Identify grant funding sources and demonstrate grant proposal development skills

CTE 582. Curriculum Development (1-5). Use program standards to determine and develop program scope and content. CTE 582, FS 582, and FCSG 582 are cross-listed courses, students may not receive credit for both. May be repeated for credit.

CTE 583. Partnerships and Advisory Committees (1-5).

Examination of how education systems create and use industry partnerships and advisory committees to enhance education programs. CTE 583 and FCSG 583 are cross-listed courses; students may not receive credit for both.

May be repeated for credit.
Upon successful completion of this course, the student will be able to:

Identify the pros and cons for working with advisory committees and industry partners for developing and maintaining programs

Identify administrator responsibilities for developing and utilizing agency, community, and industry partnerships

Identify strategies for identifying and including the community's diverse cultural, social, intellectual and industry resources on advisory committees

Identify the use of committee handbooks, meeting models, mission statements, and memorandums of agreement for working with advisory committees or industry partners

Identify processes for assessing and reporting partner action and accomplishments

CTE 584. Supervision and Evaluation (1-5). The development of constructive guidance, observation, and assessment skills. CTE 584 and FCSG 584 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 590. 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. May be repeated for credit. Grade will either be S or U.

CTE 592. Practicum (2-16). Supervised field experience in specialization content area. May be repeated for credit. Grade will either be S or U. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to:
Demonstrate project planning, implementation and evaluation skills.

Demonstrate application of program knowledge in field setting.

Identify strategies for enhancing application of program knowledge.

CTE 596. Individual Study (1-6). May be repeated if subject is different.

CTE 598. Special Topics (1-6). May be repeated if subject is different.

CTE 599. Seminar (1-5). May be repeated if subject is different.

CTE 696. Individual Study (1-6). May be repeated if subject is different.

CTE 698. Special Topics (1-6). May be repeated if subject is different.

CTE 699. Seminar (1-6). May be repeated if subject is different.

CTE 700. Master's Thesis, Project Study, or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, and/or examination. By permission of instructor. May be repeated up to 6 credits. Grade will wither be S or U.

ECON 552. Managerial Economics and Business Strategy (5). Application of microeconomic theories to managerial decisions and planning under various market structures. Prerequisite: admission to the Master of Professional Accountancy plan prior to enrolling in this course.

ECTL 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

EDAD 509. Civic Engagement (3). Student will use program of study content knowledge to improve a community situation. UNIV 509, FCSG 509, EDAD 509, and EDCS 509 are cross-listed courses. 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: Identify service learning as a pedagogy for applying academic knowledge to a community need. Identify community needs related to their academic content area. Identify an individualized academic service learning goal and develop a plan of action to address their goal. Identify, integrate and apply specific skills, knowledge, and technologies to their independent service learning project. Identify characteristics of at risk populations.

Identify the relationships between academic service learning and civic engagement.

Identify the relationships between academic service learning and career preparation.

Demonstrate their ability to analyze their progress in implementing a service learning project.

EDAD 567. Instructional Mentoring (4). Essential skills for mentoring/coaching new teachers in teaching excellence.

Upon successful completion of this course, the student will be able to:

Examine the current research; identify and discuss the best practices related to effective teaching; and be able to apply that information in mentoring new teachers.

Review current literature related to effective mentoring, be able to apply the qualities of effective mentors, and demonstrate listening and conferencing techniques while considering the needs of diverse adult learners.

Demonstrate knowledge of mentee buy in and be able to apply the skills necessary to be a trusted mentor.

Review current literature and articulate in writing the key issues related to the needs of beginning teachers.

Develop a Mentor Manual for the first weeks and months of the school year for Mentors and Beginning Teachers (Mentees) to use.

Explore and apply a variety of clinical supervision techniques in classroom observation, data collection, conferencing, and reflection to improve new teacher instructional practice.

EDAD 568. Instructional Decision Making (3). Knowledge and skills for the development of novice teacher's classroom practice to meet the needs of each student in an increasingly diverse classroom.

Upon successful completion of this course, the student will be able to:

Demonstrate comprehension of curricular learning and student development as intertwined elements of student success.

Demonstrate increased curricula collaborative interactions with mentor.

Show implementation of active and collaborative teaching and learning strategies.

Explain learning differences and similarities among pupils.

Articulate at least one way in which he/she experience as a mentee supported the academic and professional development.

Describe strategies and offer support to move the beginning teacher's practice toward using Teacher Principal Evaluation Program (TPEP)

EDAD 569. Coaching and Observation (Put on reserve 9/16/16) (4). Knowledge and skills helping mentors shape their professional growth of their colleagues, the culture of schools, and the practice of a new generation of teachers. (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: Articulate the purpose of coaching and explain the coaching cycle as it relates to mentoring a beginning teacher.

Develop a coaching plan for implementation in the classroom. Demonstrate the skills around collecting and analyzing data using observational tools.

Demonstrate the use of three observational data collection tools consistent with TPEP.

Model and analyze the skills of giving strategic feedback using the Language of Support to move the beginning teacher's practice forward in relation to

EDAD 570. Administrator Pro-Cert Seminar (Put on reserve 9/16/16) (2-6). The course provides the candidate an opportunity to engage in the process to meet the benchmarks, using self-evaluation, utilizing the Profile of Leadership Effectiveness (POLE) 360 and other data to determine administrator's positive impact on student learning. May be repeated under different subtopics up to 6 credits. By permission. Grade will either be S or U. (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:

Preparation of a Professional Growth Plan (PGP) based on the ISLLC standards (electronic format). Implementation plan for POLE 360.

Implement the PGP and collect evidence. Complete a self–assessment using the Standards a 360-degree feedback-type survey; discuss with colleagues and supervisor, the review of school/district plans.

Develop a final portfolio addressing impact on student learning (hard copy) for presentation.

EDAD 575. Administration and Supervision of IDEA (3). A focus on administrative process of designing, developing, preparing for implementation and evaluating the procedural and substantive safeguards related to administering and supervising disability programs. Upon successful completion of this course, the student/school leader will be able to:

Identify scope of special education as determined by the relationship between educational, legal, and fiscal influences at federal, state and local levels.

Demonstrate knowledge in the role of educational service agencies and other intermediate units in the operation of special education.

Discuss the constitutional, statutory, and regulatory basis for the provision and control of special education services at the state and local school levels.

Analyze the influence of administrative rulings and court decisions as expressed in case law standards that guide local practice.

EDAD 577. Diversity Leadership (3). Prepare school administrators in leadership skills in the area of diversity management across all sectors of education and society. By permission.

Upon successful completion of this course, the student will be able to: Demonstrate collaboration in working with families and community members

Articulate strategies to address personal weaknesses in cultural leadership skills (e.g. distributive, strategic etc.)

Convey how to effectively unite school resources, family members,

and community to positively affect student and adult learning.

Articulate methods of identifying stakeholders, and effective team-building skills, which include collaborations between stakeholders, engendering trust, and developing school improvement. Articulate how cultural competence affects sharing responsibilities with communities to improve teaching/learning.

EDAD 578. Readings in School Leadership (1-5). Engage in reading, analyzing, reflecting, and critiquing contemporary books giving special attention to implications of the readings for educational administrators. By permission. May be repeated up to 5 credits.

Upon successful completion of this course, the student will be able to: Engage in reading, analyzing, and reporting on contemporary issues in school administration.

Demonstrate the ability to develop a major analytical paper as an outgrowth of readings and the student's professional experience.

Develop the capacity to identify issues, examine and propose alternative solutions to school administration challenges.

Develop a pattern of participatory decision making, team work, and two-way communication that permeates every aspect and activity of the school organization

Articulate one's philosophy of leadership/educational administration.

EDAD 579. School Personnel (4). An examination of the functions of a Human Resource Office in an educational setting. Students will learn about recruitment, selection, placement of highly qualified teachers, administrators, and classified personnel; other essential personnel and human resources functions. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to:

Assess the hiring practices for Washington State's public schools

Assess the personnel issues related to recruitment and selection, professional development and training, job descriptions, compensation, and merit pay

Identify the collective bargaining issues related to RIF and dismissal policies along with due process procedures

Assess the complexities of accountability related to the fund sources and expenditures to employ certificated and classified staff
Implement the basic fiduciary and legal responsibilities of educational personnel administrators
Implement the legal liabilities and risk management principles in a HR Office.

EDAD 580. Educational Administration (4). An examination of administrative theory, principles, concepts, and processes, and the administration of educational programs and services. Prerequisite: one year of teaching experience.

Upon successful completion of this course, the student will be able to: Articulate purposes and rationale for a site- specific vision for learning consistent with the district-wide vision.

Demonstrate ability to develop school improvement plans that align structures, processes, and resources with a vision.

Supervise instruction and knows how to use a continuous cycle of assessment to improve instruction and ensure that each student has equitable and sufficient opportunities to learn and to meet high standards.

Uses district-wide and school improvement plans to support professional development, including the use of technology

Identify the responsibilities related to financial, human, and material resources as required by state law, Board policy, and employee contracts. Engages in the creation and/or implementation of plans to ensure responsible and equitable management of resources.

Demonstrates collaboration skills with diverse students and families in support of student academic performance.

EDAD 581. Public School Finance (4). An examination of writing educational grants and contracts. Students will build budgets and become familiar with various types and use of state funds. For those students enrolled in either the MED

in administration or the administrator certification program. Prerequisite: one year of teaching experience.

Upon successful completion of this course, the student will be able to:
Identify the basic funding sources for Washington State's public schools

Incorporate the complexities of accountability issues related to the fund, revenue and expenditure structures

Perform the basic fiduciary and legal responsibilities of educational administrators

Identify unmet financial needs related to grants, levies, loans, bonding and debt service funds

Write a public-school district budget
Write a grant proposal

Evaluate capital improvements, new construction, facility planning and maintenance budgets

EDAD 582. School Curriculum

(4). Examination of school curriculum for the improvement of instructional and student learning. Prerequisites: EDAD 580 or permission of instructor.

Upon successful completion of this course, the student will be able to:
Demonstrate application of curriculum alignment by designing a content specific aligned curriculum

Demonstrate evaluation of their district's curricular strengths and weakness by evaluating a district's state test data

Demonstrate comprehension of the political, social, economic, legal and cultural forces which impact curriculum

Demonstrate analysis of diversity's impact on curriculum

Demonstrate evaluation of their district's curriculum/ textbook adoption process by assessing current practices

EDAD 583. School and

Community (4). An in-depth examination of the relationship between the school and community for the improvement of instruction and student learning. Prerequisite: one year of teaching experience.

Upon successful completion of this course, the student will be able to:
Bring together the resources of schools, family members, and community to positively affect

student and adult learning, including parents and others who provide care for children.

Demonstrate collaboration skills with diverse students and families in support of student academic performance.

Recognize the diversity within the school and the district. Understand the complex characteristics of ethnic, racial, and cultural groups and the challenges faced by immigrant communities

Show how partnerships are established with area businesses, religious, political, service agencies, and other community groups to strengthen programs and support school goals.

Recognize the importance of effective media relations.

Work with community leaders to collect and analyze data on economic, social, and other emerging issues that impact district and school planning, programs, and structures

EDAD 584. School Supervision

(4). An examination of problems and issues in supervision.

Emphasizes evolving concepts of supervision, strategies, and practices of promoting instructional change.

Upon successful completion of this course, the student will be able to:
Demonstrate comprehension of the impact of supervision in schools
Demonstrate supervision of instruction and know how to use a continuous cycle of assessment to improve instruction

Demonstrate comprehension of the continuum of supervisory actions when dealing with a diverse community of learners
Demonstrate how systems are affected by a shared vision

Demonstrate use of evidence of student learning to create professional development systems

EDAD 586. The Principalship

(4). The administration of elementary, middle, junior high, and high schools. Covers common elements and those peculiar to specific levels. Prerequisite: one year of teaching experience.

Upon successful completion of this course, the student will be able to:
Demonstrate comprehension of the difference between management and leadership of an organization

Demonstrate application of the challenges of leadership by identifying them and writing a plan to address these challenges

Demonstrate how leadership impacts school culture by analyzing questions concerning leadership
Demonstrate analysis of current research of best leadership practices by examining research of best practices by examining current research literature

Demonstrate leadership for diverse groups by analyzing the needs of various constituencies in their community

EDAD 589. School Law (4). An introduction to U.S. constitutional, legislative, and regulative school law, with particular attention to the state of Washington. Covers the legal issues of governance, church/state relations, tort liability, personnel and student rights, rights of handicapped students, property and funding, minorities. Also covers basic legal research skills.

Prerequisites: EDAD 580 or permission of instructor.

Upon successful completion of this course, the student will be able to:
Communicate effectively with key decision makers in the community and in broader political contexts to improve public understanding of federal, state, and local laws, policies, regulations, and statutory requirements.

Facilitate constructive discussions with stakeholders and policymakers about federal, state, and local laws, policies, regulations, and statutory requirements affecting continuous improvement of educational programs and outcomes.

Use a variety of strategies to lead others in safely examining deeply held assumptions and beliefs that may conflict with vision and goals. Model personal and professional ethics, integrity, justice, and fairness and expect the same of others

EDAD 590. Cooperative

Education (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.

EDAD 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDAD 596. Individual Study (1-6). May be repeated for credit.

EDAD 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDAD 598. Special Topics (1-6). May be repeated for credit.

EDAD 599. Seminar (1-5). May be repeated for credit. Grade will either be S or U.

EDAD 692. Pre-autumn Internship (3). Emphasis on the principal's responsibilities prior to and during the opening of the school year. Permission to register only after approval of program director. Combines with EDAD 693 for 16 total credits in administrative internship. Grade will either be S or U. Prerequisites: EDAD 580, EDAD 586, and a minimum of three years of successful teaching experience.

Upon successful completion of this course, the student will be able to: Attend administrative meeting at the beginning of the academic year, meet with stakeholders to discuss expectation for the opening of school.

Model strategies that challenge learners to employ best practices. Encourage and develop collaborative partnerships that promote the welfare of individuals, families, and the community Create an assessment system to evaluate for continual cultural and program improvement Show evidence of encouraging and developing tools to monitor commitment to diversity among all faculty, staff, and students in the public schools

EDAD 693. Intern School Administration (3-9). Meets the laboratory and internship requirements outlined by the State Board of Education for candidates for principal's credentials. Permission to register only after approval of program director.

Credits earned in an administrative internship may not exceed a total of 12. Combines with EDAD 692 for 12 total credits in administrative internship. Grade will either be S or U. Prerequisites: EDAD 580, EDAD 586, and a minimum of three years of successful teaching experience.

Upon successful completion of this course, the student will be able to: Show evidence of encouraging and developing tools to monitor commitment to diversity among all faculty, staff, and students in the public schools Model strategies that challenge learners to employ best practices. Encourage and develop collaborative partnerships that promote the welfare of individuals, families, and the community Create an assessment system to evaluate for continual cultural and program improvement

EDAD 694. Internship in Improvement of Instruction and Curriculum Development (3-9). Meets the laboratory and internship requirements outlined by the State Board of Education for candidates for a program administrator's credential in supervision instruction and curriculum development specializations. 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: Show evidence of encouraging and developing tools to monitor commitment to diversity among all faculty, staff, and students in the public schools

Model strategies that challenge learners to employ best practices. Encourage and develop collaborative partnerships that promote the welfare of individuals, families, and the community Create an assessment system to evaluate for continual cultural and program improvement

EDAD 696. Individual Study (1-6). May be repeated if subject is different.

EDAD 698. Special Topics (1-6). May be repeated if subject is different.

EDAD 699. Seminar (1-6). May be repeated if subject is different.

EDAD 700. Master's Thesis, Project Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

EDBL 514. Introduction to Linguistic Diversity in Education (3). This course provides mainstream classroom teachers the needed background theory to better the educational experience of linguistically diverse students.

EDBL 518. Linguistics for Educators (3). Identification and study of problems related to educational linguistics and second-language instruction. Prerequisites: EDBL 433 or English as a second language methods course, or equivalent, and classroom experience.

Upon successful completion of this course, the student will be able to: Demonstrate an understanding of foundational concepts from the field of linguistics, using English (or another native language) as an example.

Engage in critical research specific to an area of structural linguistics, historical linguistics, psycholinguistics, sociolinguistics, or applied linguistics.

Articulate connections between linguistic research and the applied science of education to support the English language-literacy development and content area achievement of K-12 students. Demonstrate an understanding of English grammar and grammar instruction.

Survey the many forms of language and explore the basis for its underlying unity.

Apply the concepts of linguistics to social, cultural, and educational issues involving English language learners at K-12.

EDBL 530. Sheltering in Mainstream I: Methods (3). This course provides mainstream classroom teachers the needed background information and methodology to better the

educational experience of ESL students through the use of sheltered instruction.

EDBL 531. Sheltering in Mainstream II: Assessment and Resources (3). This course provides mainstream classroom teachers the needed background information and methodology to better the educational experience of ESL students by using classroom-based assessment and other resources.

EDBL 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.

EDBL 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program. May be repeated for credit.

EDBL 596. Individual Study (1-6). By permission. May be repeated for credit.

EDBL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDBL 598. Special Topics (1-6). May be repeated for credit.

EDBL 599. Seminar (1-5). May be repeated for credit.

EDBL 696. Individual Study (1-6). May be repeated if subject is different.

EDBL 698. Special Topics (1-6). May be repeated if subject is different.

EDBL 699. Seminar (1-6). May be repeated if subject is different.

EDBL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

EDCS 509. Civic Engagement (3). Student will use program of study

content knowledge to improve a community situation. UNIV 509, FCSG 509, EDAD 509, and EDCS 509 are cross-listed courses. 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: Identify service learning as a pedagogy for applying academic knowledge to a community need. Identify community needs related to their academic content area.

Identify an individualized academic service learning goal and develop a plan of action to address their goal. Identify, integrate and apply specific skills, knowledge, and technologies to their independent service learning project.

Identify characteristics of at risk populations.

Identify the relationships between academic service learning and civic engagement.

Identify the relationships between academic service learning and career preparation.

Demonstrate their ability to analyze their progress in implementing a service learning project.

EDCS 513. Creative Teaching (3). Includes opportunity for creative expression as well as sharing creative teaching ideas, aids, and methods. The purpose of the course is to help teachers become more imaginative and creative in planning, conducting and evaluating classroom instruction. Emphasis on classroom management and organization. Prerequisite: teaching experience.

EDCS 539. Educational Games (3). This course will emphasize the purpose and benefits of educational games and provide each student with experience in planning, developing, and presenting as well as playing games of their own creation for use as an instructional tool. Participants will be responsible for any expense involved in the construction of their games.

Prerequisite: graduate standing or one year of teaching experience.

EDCS 545. Classroom Teaching Problems (3). Open to experienced teachers. Prerequisite: teaching experience.

EDCS 546. Advanced Laboratory Experience (Put on reserve

9/16/15.) (2-5). Consult chair of department of curriculum and supervision for permission to register for this course. May be repeated for credit. Put on reserve 9/16/15. Will go inactive 8/24/18.

EDCS 565. Program of Curriculum Improvement (3).

EDCS 571. Continuous Progress School (3). The relationship of the instructional program to levels of learning based on individual capacities and maturity.

EDCS 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.

EDCS 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDCS 596. Individual Study (1-6). By permission. May be repeated for credit.

EDCS 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDCS 598. Special Topics (1-6). May be repeated for credit.

EDCS 599. Seminar (1-5). May be repeated for credit.

EDCS 696. Individual Study (1-6). May be repeated if subject is different.

EDCS 698. Special Topics . May be repeated if subject is different.

EDCS 699. Seminar (1-6). May be repeated if subject is different.

EDCS 700. Master's Thesis, Project Study, and/or

Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

EDEL 590. Cooperative Education (1-8). An individualized, contracted field experience with

business, industry, government, or social service agencies. The 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.

EDEL 591. Workshop (1-6). May be repeated for credit. No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDEL 596. Individual Study (1-6). By permission. May be repeated for credit.

EDEL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDEL 598. Special Topics (1-6). May be repeated for credit.

EDEL 599. Seminar (1-5). May be repeated for credit.

EDEL 696. Individual Study (1-6). May be repeated if subject is different.

EDEL 698. Special Topics (1-6). May be repeated if subject is different.

EDEL 699. Seminar (1-6). May be repeated if subject is different.

EDEL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

EDF 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

EDF 501. Educational Foundations (3). Provides a background in selected areas of sociological, historical, and philosophical foundations of education. Also covers current and emerging problems of education.

EDF 502. History of Education

(3). Background: historical development in America.

EDF 503. Philosophy of Education (3). Various philosophic positions which lead to an understanding of the educational enterprise. EDF 503 and PHIL 503 are cross-listed courses; students may not receive credit for both.

EDF 505. Educational Measurement for Teachers (3). Designed primarily for graduate students. Emphasis is on formal and informal measurement. Test theory, formative and summative evaluation; criterion and norm referenced measurements, and construction and use of classroom tests are emphasized.

EDF 506. Education Futurism (3). A study of the literature on alternative futures in American society and their possible impacts upon education. The methods of creative forecasting or future research. The desirability of deciding between alternative futures in education and the methodology of helping to bring about the more desirable future. Futurism in elementary and secondary schools.

EDF 507. Studies and Problems in Intercultural Education (3). Research and analysis of models in intercultural and interpersonal school relations. Awareness of the student-teacher relation in creating school climate in multicultural settings. Analysis of the principles used to interpret these interactions, and practice in brief interventions involving staff, teachers, and students.

EDF 508. Comparative Education (3). A comparative look at national systems of education.

EDF 510. Educational Research and Development (4). A study of the types, methodology, and uses in practice of educational research and development skills pertinent to the design and execution of research thesis and education developmental projects.

Upon successful completion of this course, the student will be able to: Conduct an appropriate literature search for a thesis/project topic Construct testable hypotheses Understand basic concepts of measurement

Use the concepts of validity, reliability, and bias as research standards

Understand and use basic descriptive statistics Recognize and define the different quantitative research methodologies.

Understand and use basic inferential statistics for hypothesis testing. Recognize and define the different qualitative research methodologies. Understand the format of a university thesis/project appropriate for the researcher's discipline.

EDF 511. Planning for Learning (3). Principles of planning, instruction, curriculum development, and pedagogy used in teaching primary, middle, and secondary level students. By permission.

EDF 520. Teaching the Classics (3). Techniques for teaching the great works of literature, philosophy, and history of classical Greece and Rome.

Upon successful completion of this course, the student will be able to: Demonstrate highly developed oral and written communication skills. Possess the knowledge, skills, and dispositions necessary to teach the classics successfully. Demonstrate the ability to plan for specific instruction of the classics in their classroom.

Possess the knowledge, skills, and dispositions necessary to influence curriculum development in the schools to include substantive work in the classics.

EDF 567. Educational Change (3). Education change; barriers, characteristics, trends, processes; role of change agent in school organization; leadership techniques for facilitating change.

EDF 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.

EDF 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can

be applied toward a master's program.

EDF 596. Individual Study (1-6). By permission. May be repeated for credit.

EDF 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDF 598. Special Topics (1-6). May be repeated for credit.

EDF 599. Seminar (1-5). May be repeated for credit.

EDF 696. Individual Study (1-6). May be repeated if subject is different.

EDF 698. Special Topics (1-6). May be repeated if subject is different.

EDF 699. Seminar (1-6). May be repeated if subject is different.

EDF 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

EDHE 510. History of Higher Education (3). The primary purpose of the course is to provide an overview of the evolution of higher education in the United States. Formerly EDAD 510, students may not receive credit for both. Prerequisite: enrolled in master of education higher education.

Upon successful completion of this course, the student will be able to: Identify and evaluate the claims, concepts, and assumptions made in reading.

Interpret historical analysis using political, social, and economic lenses.

Describe the evolution of higher education in the United States, from the economical period to the present, with particular focus on: the institution, faculty, students, and the curriculum.

Apply an understanding of history to the present to identify potential challenges higher education may confront in the future.

EDHE 511. Research in Higher Education (4). An introduction to the characteristics and various approaches to designing and conducting research projects in higher education. Formerly EDAD 511, students may not receive credit for both. Prerequisite: enrolled in the master of education higher education.

Upon successful completion of this course, the student will be able to: Become familiar with the characteristics, language and logic of research methods.

Comprehend the available techniques for designing a research study.

Recognize and assess quality and rigor in evaluating a research study. Preparation, submission, and possible presentation of your research plan for the course.

EDHE 512. Diversity Leadership Management (3). Ability to recognize, understand, and adapt to differences in an organizational setting. Prerequisite: admission in the Master in Higher Education Program.

Upon successful completion of this course, the student will be able to: At the organizational level, student will develop a framework and perspectives on diversity and explain how organizations approach diversity.

Explain how human interactions under conditions of racial difference to enhance organizational productivity.

Write a professional development plan on diversity management.

Explain how organizations conduct diversity management and what are the outcomes.

Explain to class members the impacts of diversity on group dynamics and leadership.

EDHE 515. College Student Development (3). Theories of student development, and their applications in higher education student affairs programs, services, and activities. Emphasis will be placed on theories of psychosocial, cognitive, moral, environmental, and identity development (minority, traditional age, and non-traditional), as well as theories of learning.

Formerly EDAD 515, students may not receive credit for both.

Prerequisite: enrolled in the master of education higher education.

Upon successful completion of this course, the student will be able to: Attain and demonstrate comprehension of student development theory and become conversant in the common theoretical language(s) used in the field.

Explain both the potential applications and limitations of theoretical models, as they attempt to address significant diversity within the undergraduate student population, with regard to race, ethnicity, gender, sexual orientation, socio-economic status, etc.

Demonstrate comprehension of theoretical constructs and research claims, as conceptual connections are made between theory, research, and practice application.

Demonstrate professional and graduate level written and oral communication skills.

Observe and evaluate how student developmental theories are applied, or not applied, in actual student services planning, implementation, and assessment.

Create and explain a set of definable "guiding principles" for using student development theories in the context of leadership, ethics, and personal identity development.

EDHE 517. Organizational Dynamics (3). Overview of organizations as dynamic systems, emphasizing a culture of change influenced by intra-personal and interpersonal beliefs and behavior relative to ethics, leadership, motivation, communication, decision-making, problem solving, conflict resolution, and stress; impacting professional growth. Formerly EDAD 517, students may not receive credit for both.

Prerequisite: enrolled in the master of education higher education.

Upon successful completion of this course, the student will be able to: Review organizational theory and define organizations as dynamic systems. [knowledge]

Identify and distinguish between key behaviors that influence organizational dynamics.[comprehension]

Interpret personal behavior in the areas of ethics, leadership,

motivation, communication, decision-making, problem solving, conflict resolution, and stress. [application]
Analyze personal beliefs and professional contributions within an organizational context. [analysis]
Evaluate professional performance. [evaluation]
Create individualized professional goals based on performance evaluation. [synthesis]

EDHE 518. Program Evaluation and Assessment (3). Overview of program evaluation planning, and how to assess programs efficiently at various higher education settings. Formerly EDAD 518, students may not receive credit for both.
Prerequisite: enrolled in the master of education higher education.
Upon successful completion of this course, the student will be able to:
Provide practical strategies for assessing various dimensions of institutional effectiveness.
Identify and apply the principles and strategies that are essential for program evaluation and assessment.
Develop a program evaluation and assessment project.
Examine, select, and develop appropriate and effective assessment methods.
Demonstrate strategies for analyzing, reporting, and using assessment results.

Describe evaluation-related issues in higher education development.

EDHE 520. Program Administration in Adult Education (3).

The principles and procedures involved in designing, organizing, operating, and evaluating comprehensive adult education and training programs. This course emphasize the role and responsibilities of the program manager/leader in developing human resources. Prerequisite: admission in the Master in Higher Education Program.
Upon successful completion of this course, the student will be able to:
Describe and illustrate the overall program development process.
Explain and appraise the role of the program manager in designing adult education programs.
Discuss the most effective ways to gain organizational support for the program planning processes.

Describe the role of advisory committees and boards in the program planning processes.
Arrange an appropriate funding and/or budgeting process that supports an adult education program.
Select and describe levels of program evaluation.

EDHE 525. Organizational Communication in Higher Education (3). This course will provide the theoretical fundamentals in communication, apply communication strategy to oral and written business assignments, and focus on how organizations communicate to their internal and external stakeholders. Prerequisite: enrolled in master of higher education.

Upon successful completion of this course, the student will be able to:
Define organizational communication both as a field of study and a function of organizational life.

Demonstrate professional and graduate level written and oral communication skills.

Describe the range of communication phenomena in contemporary organizations.

Demonstrate a legal/ethical behavior that is appropriate for the business professional in today's society.

Acknowledge diverse groups of individuals possessing different beliefs, values, attitudes, and customs.
Demonstrate awareness of varying backgrounds by preparing a major PowerPoint presentation investigating various cultural aspects of doing business in another country.

Create case studies to identify and resolve communication problems

EDHE 560. The American Community College Student (3).

To provide the graduate student with an overview of the unique characteristics of the American community college students, including vocational education, academic transfer, life long learning, and remedial instruction. Prerequisite: admission in the Master in Higher Education Program.

Upon successful completion of this course, the student will be able to:
Articulate the organizational structure of administrative functions of a community college.
Identify the critical issues facing community college today and in the near future.
Articulate the theory and research of adult learning within the American community college student population.
Frame an understanding of policies, programs and practices among American community colleges.
Identify the issues facing students in American higher education.
Develop an understanding of the differences and similarities in issues related to community colleges and four-year colleges and universities.
Articulate the demographic and trends of American community colleges as they relate to student success.

EDHE 561. Student Success in American Higher Education (3).

Theories and research in higher education on effective policies, programs, and practices that can be adopted to promote student success in higher education. Prerequisite: permission of instructor.

Upon successful completion of this course, the student will be able to:
Articulate policies programs and practices to promote student success in American higher education.
Identify and articulate the breadth of the issues relating to student success in American higher education.
Articulate the demographics and trends of students in American higher education.

Explain historical and emerging student development theories and apply theory to practice through case study analysis.

Attain and demonstrate a solid knowledge of student success theory and become conversant in the cotnl non theoretical language(s) used in the field.

EDHE 572. Leadership and Supervision in Higher Education (3).

Develop leadership techniques and behavior traits to improve productivity of supervisors and leaders in the workplace, while enhancing interpersonal skills for career success. Prerequisite:

enrolled in master of higher education.

Upon successful completion of this course, the student will be able to: Comprehend and describe the concepts of organizational and administrative theory literature within higher and postsecondary education.

Demonstrate the ability to integrate the proven, traditional and functional approach to supervisory management, and apply it to today's knowledge-based and multicultural workforce.

Demonstrate the ability to analyze various frames and models that illustrate how culture influences organizational decision making and outcomes.

Demonstrate skill in staff recruitment and selection, supervision, evaluation and personnel management, project management, assessment and strategic planning.

Demonstrate the ability to effectively communicate on a professional level with workers, unions and other management personnel including: leading, motivating, coaching, appraising, disciplining and problem solving. Demonstrate the ability to analyze problem situations and suggest possible solutions.

EDHE 581. Finance in Colleges and Universities (4). Fundamental considerations in the finance of institutions of higher education. Prerequisite: enrolled in master of higher education.

Upon successful completion of this course, the student will be able to: Describe the critical resources to public and private institutions of higher education and recognize the degree of reliance of public and private institutions on particular resources and the implications/effects of threats or changes in these resource flows or allocation processes.

Articulate the issues and debates surrounding state support of higher education and describe the issues and debates surrounding federal research policy and higher education's growing entrepreneurial orientation.

Describe the evolution of thinking about planning in higher education,

how it is commonly practiced, and the utility of applying concepts developed in business to the higher education setting, and discuss key resource issues surrounding fund raising, endowment management, facilities, and information technology.

EDHE 589. Higher Education Law (4). Examination of legal issues relevant to American colleges and universities to provide students with the fundamental knowledge of higher education law for administrators. Prerequisite: enrolled in master of higher education.

Upon successful completion of this course, the student/candidate will be able to:

Explain how the legal structure and governance of higher education and the judicial system affect policies and practices.

Recognize key Constitutional and statutory provisions in the law.

Articulate the key court rulings that establish legal parameters (students will be expected to outline or "brief" each of the assigned cases).

Demonstrate the ability to apply legal concepts from an administrative perspective, and be able to use basic legal terminology.

Explain how institutional regulations/directives translate the law into on-the-job requirements.

EDHE 596. Individual Study (1-6). May be repeated if subject is different.

EDHE 598. Special Topics (1-6). May be repeated if subject is different.

EDHE 599. Seminar (1-5). May be repeated if subject is different.

EDHE 696. Individual Study (1-6). May be repeated if subject is different.

EDHE 698. Special Topics (1-6). May be repeated if subject is different.

EDHE 699. Seminar (1-6). May be repeated if subject is different.

EDHE 700. Master's Thesis, Project Study and/or

Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite:

EDHE 511 and permission of chair of student's graduate faculty supervisory committee.

EDLM 510. 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 receive credit for both. Upon successful completion of this course, the student will be able to: Write a five page paper addressing diversity issues as it pertains to access.

Critique five school Bring Your Own Device models with attention to equal access and school policy issues.

Write a five page paper addressing fair use of others' materials.

Create a professional development plan on internet access to implement in a school setting.

Analyze case studies dealing intellectual freedom.

Develop a professional development plan for staff.

Develop a paper on cultural proficient leadership practice and present it in class.

EDLM 514. 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: Identify and be able to name trends in library technologies.

List tools of technology and describe how to effectively buy technology.

Name and describe various storage media.

List and describe Web 2.0 and social networking technologies.

Use word processing software for appropriate library applications.

Use spread sheets for appropriate library applications.

Use presentation software for appropriate library application.

Describe the basics of how a database works.

Use photo editing and video editing software for appropriate library applications.

Use audio editing software and podcasting for appropriate library application

Demonstrate how to incorporate media and technology into lesson plans.

EDLM 516. 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 comprehension of use 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 the use of Google Earth.

Describe information processing models and how to promote them.

EDLM 526. 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: Identify the role of Library Media Center as explained in the ALA handbook Information Power.

State the national and state standards for library, information literacy and technology.

Use benchmarks and grade level indicators.

Give examples of collaboration.

Define curriculum mapping and describe its importance in meeting standards.

Identify the various literature connections that can be used to enhance lesson plans.

Explain the importance of reading promotions.

Explain the importance of a mission statement and goals that support a diverse population.

Design problem-based, resource-based, inquiry-based, and project-based learning to structure their authentic learning activity.

EDLM 536. 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: Identify the seven genres of children's literature and YA literature and be familiar with books in each genre.

Identify leading authors and their books in the various areas of children's and YA literature.

List major illustrators of children's literature.

Prepare promotion strategies to present children's literature and promote reading.

Identify literature from various cultural groups around the world and compare different version of fairytales.

Discuss issues of censorship.

EDLM 548. 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: Demonstrate a working knowledge of the variety of selection aids available to them in formats of book, audiovisual, and on-line sources.

Demonstrate knowledge of methods to deal with censorship and intellectual freedom issues.

Develop a plan for purchase of items in a specific curriculum area using the limited resources available to the library media specialist today. Identify with literature which can be correlated with the content areas of the curriculum.

Design how to integrate the library media center into the various curriculum areas of the school setting.

EDLM 558. 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: Demonstrate an understanding of the theories and accepted principals of standardized card cataloging systems and how resources are searched, enabling candidates to provide LMC patrons with effective access to learning resources.

Identify matching MARC records when available. Understand online bibliographic data such as OCLC, LC, and other records.

Edit basic MARC bibliographic records for both print and non-print formats.

Demonstrate an understanding of procedures for classifying, cataloging and processing school library media resources that facilitate computerized MARC

(Machine Readable) format and resource sharing.
 Assign an appropriate Dewey Decimal Classification number to bibliographic records, and understand both the logical/intellectual organization of knowledge and information and the physical organization of resources. Assign appropriate Sears Subject Headings to bibliographic records.
EDLM 568. 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.
 Prepare effective reference services.
 Explain the importance of diverse educators in higher education.
 Explain the importance of effectively promoting new material, technology and services.
 List and describe the different research models.
 Develop skills to be an effective searcher by using proper search mechanics and search language.
 Organize appropriate resources for a library using selection tools, needs assessment and collection and curriculum mapping.
 State and use information literacy standards.
EDLM 578. 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 supports your philosophy statement

Use budget and facility reports, flyers and library promotions as effective means of communication with students, faculty, staff, administrators, parents, other colleagues and the general public. Demonstrate knowledge in the basic principles of evaluating, selecting, and maintaining resources and equipment to provide a collection of internal holdings and external access points that supports the educational goals of the school. 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. Identify and use tools necessary to be a leader and facilitator of learning within schools and as a collaborator with staff, administrators and students in the development of effective teaching and learning strategies. Develop a school library media program dedicated to providing access to information and ideas. Develop a school library management plan that meets the school improvement plan, learning standards and needs of patrons. Align library curriculum to state learning standards, Information Power standards and AASL learning standards. Develop an understanding of the basics of copyright laws.
EDLM 592. Library Media Experience (1-4). An individualized field experience in a public/private school setting supervised/coordinated by faculty. By permission only. 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 596. Individual Study (1-6). May be repeated if subject is different.
EDLM 598. Special Topics (1-6). May be repeated if subject is different.
EDLM 599. Seminar (1-5). May be repeated if subject is different.
EDLM 696. Individual Study (1-6). May be repeated if subject is different.
EDLM 698. Special Topics (1-6). May be repeated if subject is different.
EDLM 699. Seminar (1-6). May be repeated if subject is different.
EDLT 520. Literacy Curriculum: Design and Delivery (5). An in-depth research-based analysis of literacy curriculum design and delivery in K-12 settings. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 592A. Upon successful completion of this course, the student/teacher candidate will be able to:
 Identify important principles for evaluating literacy curriculums/programs/materials WA Read Standards: 1, 3, 4, 6 IRA Standards: 1, 2, 5 CTL Standards: 1.1
 Identify and describe effective literacy curriculums/programs/materials WA Read Standards: 3 IRA Standards: 2, 5 CTL Standards: 1.1
 Construct strategies and tools for evaluating literacy curriculums/programs/materials. WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3
 Develop strategies for reviewing literacy curriculums/programs/materials. WA Read: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3, 1.4
 Develop effective literacy curriculum. WA Read: 3 IRA Standards: 1, 2 CTL Standards: 1.1, 1.3
 Identify processes for collaboratively developing literacy curriculum. WA Read Standards: 3,

5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3, 1.4
 Construct a plan for grade level/school/teaching team collaboration in developing literacy curriculum. WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3, 1.4
 Identify gaps in mandated curriculums WA Read Standards: 1, 3 IRA Standards: 1, 2 CTL Standards: 1.1, 1.3
 Explain the influence of literacy curriculum/program/materials on students' learning WA Read Standards: 3, 4 IRA Standards: 2, 4 CTL Standards: 1.1, 1.3
 Construct a plan for working within the boundaries of mandated curriculum/programs and address gaps/meet the needs of all students. WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3, 1.4
 Communicate information to public and policymakers about literacy curriculum/programs/materials WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.4
EDLT 521. Program Organization: Literacy Coaching and Leadership (5). Literacy leadership in K-12 settings including research-based practices in coaching, supervision, program organization, grant writing, and professional development. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 592B. Upon successful completion of this course, the student/teacher candidate will be able to:
 Identify important principles coaching and professional development WA Read Standards: 1, 2, 3, 4, 6 IRA Standards: 1, 2, 3, 4, 5, 6 CTL Standards: 1.1
 Identify and describe effective strategies for professional development in literacy WA Read Standards: 5 IRA Standards: 6 CTL Standards: 1.1
 Construct strategies and tools for improving literacy practices in K-12 classrooms and schools. WA Read Standards: 3, 5 IRA Standards: 2, 3, 6 CTL Standards: 1.1, 1.3
 Develop strategies for coaching teachers. WA Read: 3, 5 IRA Standards: 6 CTL Standards: 1.1, 1.3, 1.4

Conduct effective literacy coaching and professional development. WA Read: 5 IRA Standards: 6 CTL Standards: 1.1, 1.3
 Identify processes for collaboratively developing literacy professional development. WA Read Standards: 5 IRA Standards: 6 CTL Standards: 1.1, 1.3, 1.4
 Construct a plan for grade level/school/teaching team professional growth in literacy. WA Read Standards: 5 IRA Standards: 6 CTL Standards: 1.1, 1.3, 1.4
 Identify gaps in literacy teaching and learning. WA Read Standards: 1, 2, 5 IRA Standards: 1, 2, 6 CTL Standards: 1.1, 1.3
 Explain the influence of literacy coach on teacher practice and student learning. WA Read Standards: 3, 4 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3
EDLT 523. Issues and Trends in Literacy Research (4). Identification and in-depth study of issues and trends related to literacy instruction. Recent literacy research is pursued with emphasis on classroom application in K-12 settings. By permission of instructor. Corequisite: EDLT 534. Upon successful completion of this course, the student/teacher candidate will be able to:
 Demonstrate knowledge of current issues and trends in literacy research WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard: 1, 2 CTL Standard: 1
 Demonstrate knowledge of current practices in literacy teaching and learning WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Examine, analyze, and reflect on current practices in literacy. WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of appropriate literacy teaching strategies for modifying instructional methods based on factors such as socioeconomic, emotional, culture, language, dialect, motivation, behavior, cognition, and ethnic diversity WA Read: 1,2,3,6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Read, analyze, and critique research related to literacy teaching and

learning WA Read: 1, 5.2; 6.1 IRA Standard: 1, 4; 6 CTL Standard: 1; 4
 Revise/adjust personal practice in literacy instruction based on current research. WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of researched- based literacy practices for use of instructional technology WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3,4, 5, 6, 7
 Participate as a member of a professional learning community in order to reflect and improve upon classroom practices WA Read: 5 IRA Standard 6 CTL Standard 1.4
EDLT 525. Psychology of Reading (3). Principles of learning and readiness, perception, psychological, and physiological aspects of reading. PSY 525 and EDLT 525 are cross-listed courses, students may not receive credit for both. Prerequisites: a reading methods course, and a basic psychology of learning course. Upon successful completion of this course, the student/teacher candidate will be able to:
 Demonstrate knowledge of psychological, sociological, and linguistic foundations of reading and writing processes and instruction. WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of reading research and histories of reading WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Demonstrate knowledge of language development and reading acquisition and the variations related to cultural and linguistic diversity. WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of the major components of reading (phonemic awareness, word identification and phonics, vocabulary and background knowledge, fluency, comprehension strategies, and motivation) and how they are integrated in reading. WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard 1 CTL Standard 1.1
EDLT 526. Assessing Literacy (3). Selecting, administering, and

analyzing multiple literacy assessment and diagnostic tools for use in the K-12 settings will be emphasized. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 528 and EDLT 592B.

Upon successful completion of this course, the student/teacher candidate will be able to:
Demonstrate knowledge of literacy terminology WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard 1 CTL Standard 1.1

Demonstrate how school factors, culture, language, dialect, and ethnic diversity among learners can influence literacy development. WA Read: 1.3.1; 1.3.2; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard 1, 4, 5 CTL Standard 1.3

Demonstrates the knowledge of the importance of including families and other interested parties in the assessment process. WA Read: 1.3.3; 6.2; 6.3.6 IRA Standard 1, 3, 4, 5 CTL Standard 1.3; 1.4

Demonstrate knowledge of selecting a wide- range of assessment tools to match instruction. WA Read: 2.2.1; 2.2.2; 3.3; 4.1; 6.3; 6.3.5, 6.5.8 IRA Standard 2, 3 CTL Standard 1.3; 1.4

Demonstrate knowledge of interpreting assessment results to inform instruction, including use of student strengths, targets, developmental stages, literacy levels, literacy components, and cultural and linguistic backgrounds. WA Read: 2.2.1; 2.2.2; 2.2.3; 2.2.4; 2.2.5; 3.3; 4.1; 5.1; 6.3.1, 6.3.3; 6.3.4; 6.3.5; 6.5.8 IRA Standard 2, 3, 5 CTL Standard 1.1; 1.3; 1.4

Demonstrate purpose of on-going and long- term monitoring of student progress using a wide range of assessment tools. WA Read: 2.2.2; 2.2.6; 6.1; 6.3.2; 6.3.3; 6.3.4; 6.5.8 IRA Standard 3 CTL Standard 1.3, 1.4

Participate as a member of a professional learning community in order to improve assessment and instruction WA Read: 5.2; 5.3; 6.1; 6.3.6 IRA Standard 6 CTL Standard 1.4

EDLT 528. Personalizing Literacy Instruction (3). Strategies and tools for personalizing data-driven literacy instruction in a K-12 setting. Prerequisite: admission to the Master of Education Literacy

Program. Corequisite: EDLT 526 and EDLT 592B.

Upon successful completion of this course, the student/teacher candidate will be able to:

Identify important principles of personalized instruction including the influence of cultural and linguistic diversity. WA Read: 1.3, 2.2.3, 2.2.5, 3.1, 3.2, 4.1, 4.4, 5.1, 6.3.3, 6.5.8 IRA Standard 1, 2, 4, 5 CTL Standard 1.1, 1.3, 1.4

Identify and describe effective personalized instruction for individuals and small groups. WA Read: 2.2.3, 2.2.5, 3.1, 3.2.1, 5.1, 6.1, 6.4, 6.5 IRA Standard 2, 4, 5 CTL Standard 1.3

Construct thoughtful personalized goals and plans for individuals and groups based in data- driven assessments. WA Read: 2.2.3, 2.2.5, 4.2, 4.6, 6.1, 6.3, 6.4 IRA Standard 2, 3, 4, 5 CTL Standard 1.3; 1.4

Construct and model instructional strategies for the essential components of literacy, including writing. WA Read: 2.2.5, 3.1, 3.2, 3.2.3, 4.5, 5.1, 6.1, 6.5, 6.6 IRA Standard 2, 4, 5 CTL Standard 1.3; 1.4

Locate, read, synthesize, and report on current literacy research. WA Read: 1.0, 5.2, 6.1 IRA Standard 1, 2, 4, 6 CTL Standard 1.1; 1.3; 1.4

Identify and work with other learning professionals in order to support the needs of learners WA Read: 5.3, 6.3.3, 6.3.4, 6.3.6 IRA Standard 2, 4, 6 CTL Standard 1.3, 1.4

Construct a plan for parents in order to support literacy in the home. WA Read: 5.1, 6.2, 6.6 IRA Standard 2, 4, 5, 6 CTL Standard 1.4

Identify materials, methods, and processes that may be used in literacy instruction. WA Read: 3.1.1, 3.2, 3.3, 4.4, 6.5 IRA Standard 2, 4, 5 CTL Standard 1.1; 1.3

Explains the influence of school programs on students' learning WA Read: 3.1.4, 3.1.5, 6.5, 6.6 IRA Standard 2, 4, 5, 6 CTL Standard 1.1; 1.3

Construct a plan for a school-wide literacy program WA Read: 3.1.4, 3.1.5, 5.3 IRA Standard 1, 2, 4, 5, 6 CTL Standard 1.1; 1.3

Communicates information to public and policymakers about

literacy instruction WA Read: 5.2, 6.3.6 IRA Standard 1, 6 CTL Standard 1.1; 1.3

EDLT 534. Learning Theories: Research and Applications (4).

Advanced study of learning theories. Clarification of teacher beliefs, adjustment of evidence-based instructional practices with theory and research. By permission of instructor. EDLT 534 and EDSE 534 are cross-listed

courses, students may not receive credit for both. Corequisite: EDLT 523.

Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of major learning theories CEC Standard 2: ACC2K2 WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard: 1 CTL Standard: 1

Demonstrate knowledge of the relationship between theories and methodologies of teaching and learning including adaptation and modification of curriculum for students with disabilities/diverse needs CEC Standard 2: ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1

Research how factors, such as school political, socioeconomic, emotional, culture, language, dialect, motivation, behavior, cognition, and ethnic diversity among learners can influence learning CEC Standard 2: ACC2K1 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7

Reflect and apply learning theories to current classroom practice CEC Standard 2: ACC2S3, Standard 5: SA5K3 WA Read: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7 Demonstrate knowledge of developmentally appropriate strategies for modifying instructional methods and learning environment CEC Standard 2: ACC2K6 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1 Read, analyze, and critique learning theory research CEC Standard 3: ACC3S3 WA Read: 1, 5.2; 6.1 IRA Standard: 1, 4; 6 CTL Standard: 1; 4 Refine personal theories and beliefs CBC Standard 2: ACC2S3 WA

Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WA Read: 1, 2, 4, 6 IRA Standard: 1, 2, 4 CTL Standard: 1
 Demonstrate knowledge of theories and practices for use of instructional technology for all learners CBC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3, 4, 5, 6, 7
 Explain the relevance/importance of social and cultural factors within evidence-based classroom practices. CBC Standard 2: ACC2K1 WA Read: 3; 4; 6 IRA Standard 2, 3, 4, 5 CTL Standard 1, 2, 5, 6, 7
 Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CBC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4
EDLT 535. Teaching Diverse Learners (5). Advanced study of current research as it relates to the instructional, social, and emotional needs of diverse learners and differentiation of instruction to meet the needs of all learners. Specific focus on critical role of teacher-leaders as educators in their classrooms, schools, and communities. EDLT 535 and EDSE 535 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education Program or Literacy Program. Corequisite: EDSE 592C. Upon successful completion of this course, the student/teacher candidate will be able to:
 Demonstrate knowledge of the effects of the cultural and environmental milieu of the individual and the family on behavior and learning CEC Standard 2: ACC2K1 WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard: 1 CTL Standard: 1
 Demonstrate knowledge of the theories and methodologies of teaching and learning, including adaptation and modification of curriculum CEC Standard 2:

ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Explain the effects of cultural, social, and economic diversity and variations of individual development to inform the development of programs and services for individuals with diverse learning needs. CEC Standard 2: ACC2K3 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate how to coordinate educational standards to the needs of individuals with diverse learning needs CEC Standard 2: ACC2S3, Standard 5: SA5K3 WA Read: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7
 Interpret and apply current laws, regulations, and policies as they apply to the administration of services to individuals with diverse learning needs and their families CEC Standard 1: SA1S1 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Communicate a personal inclusive vision and mission for meeting the needs of individuals with diverse learning needs and their families CEC Standard 1: SA1S5 WA Read: 1, 5.2; 6.1 IRA Standard: 1, 4; 6 CTL Standard: 1; 4
 Identify evidence-based practices validated for specific characteristics of diverse learners and settings CEC Standard 3: ACC3K1 WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WA Read: 1,2,4,6 IRA Standard: 1, 2, 4 CTL Standard: 1
 Demonstrate the use of instructional technology for all learners CBC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3, 4, 5, 6, 7
 Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CBC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4
EDLT 536. Understanding Research Methods (3). Overview

of qualitative and quantitative methods. Develop skills as critical consumers of educational research, and an understanding of evidence-based instructional practice. Focus on action research as a way to analyze and improved instructional practice. EDLT 536 and EDSE 536 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education Program or Literacy Program. Corequisite: EDLT 537. Upon successful completion of this course, the student/teacher candidate will be able to:
 Explain the differences between qualitative, quantitative, and action research and when each is appropriate to use CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Identify and compare the different types of quantitative, qualitative, and action research CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Identify the ethical issues related to the use of quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1; 3; 4; 6; 7
 Demonstrate skills in evaluating quantitative, qualitative, and action research. CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1; 4
 Demonstrate skills in interpreting quantitative, qualitative, and action research. CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Use the format of a research/article CEC Standard 2: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Conduct a review/search of the literature for chosen research problem or question CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Use the current APA convention when writing and citing research CEC Standard 3 WA Read: 5.2; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Participate as a member of a professional learning community in order to reflect and improve upon scholarly writing CEC Standard 3;

5; 6 WA Read: 5.2; 5.3; 6.1 IRA Standard 1, 6 CTL Standard 1.4

EDLT 537. Designing and Writing Research (3). Develop skills of designing and writing research. Prepare a research proposal that incorporates principles, processes, values, and roles of action research. Emphasis on conducting action research as a way to analyze and improved instructional practice. EDLT 537 and EDSE 537 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education Program or Literacy Program. Corequisite: EDLT 536. Upon successful completion of this course, the student/teacher candidate will be able to:

- Demonstrate skills in evaluating quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1; 4
- Demonstrate skills in interpreting quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7
- Demonstrate the format of a research article/thesis/project. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7
- Write research proposal CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
- Write complete draft of background, literature review, and methodology of research. CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
- Use the current APA convention when writing and citing research. CEC Standard 3 WA Read: 5.2; 6.1 IRA Standard: 1, 6 CTL Standard: 1
- Participate as a member of a professional learning community in order to reflect and improve upon scholarly writing. CEC Standard 3; 6 WA Read: 5.2; 5.3; 6.1 IRA Standard 1, 6 CTL Standard 1.4

EDLT 590. Cooperative Education (1-8). An individualized contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a

student learning plan, cooperating employer supervision, and faculty coordination. Prior approval is required. May be repeated for credit.

EDLT 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a Master's program. May be repeated for credit.

EDLT 592A. Practicum: Literacy Curriculum-Design and Delivery (1). Application of literacy curriculum design and delivery K-12 settings. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program. Corequisite: EDLT 520. Upon successful completion of this course, the student/teacher candidate will be able to:

- Identify and describe effective literacy curricula, programs, materials WA Read Standards: 3 IRA Standards 2, 5 CTL Standards, 1.1
- Construct strategies and tools for evaluating literacy curricula/programs/materials WA Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.1, 1.3
- Develop strategies for reviewing literacy curricula, programs, materials WA Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.1, 1.3, 1.4
- Develop effective literacy curriculum WA Read Standards: 3 IRA Standards 1, 2 CTL Standards, 1.1, 1.3
- Identify processes for collaboratively developing literacy curriculum WA Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.1, 1.3, 1.4
- Construct a plan for grade level/school/teaching team collaboration in developing literacy curriculum WA Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.1, 1.3, 1.4
- Construct a plan for working within the boundaries of mandated curriculum/programs and address gaps to meet the needs of all students WA Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.1, 1.3, 1.4
- Communicate information to public and policymakers about literacy curriculum/programs/materials WA

Read Standards: 3, 5 IRA Standards 2, 6 CTL Standards, 1.4

EDLT 592B. Practicum: Program Organization (1). Application of program organization, literacy coaching and leadership in K-12 settings. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program. Corequisite: EDLT 521. Upon successful completion of this course, the student/teacher candidate will be able to:

- Construct strategies and tools for improving literacy practices in K-12 classrooms and schools. WA Read Standards: 3, 5 IRA Standards: 2, 3, 6 CTL Standards: 1.1, 1.3
- Conduct effective literacy coaching and professional development. WA Read: 5 IRA Standards: 6 CTL Standards: 1.1, 1.3
- Construct a plan for grade level/school/teaching team professional growth in literacy. WA Read Standards: 5 IRA Standards: 6 CTL Standards: 1.1, 1.3, 1.4
- Construct a plan for working within the boundaries of mandated curriculum/programs and address the needs of all teachers. WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.1, 1.3, 1.4
- Communicate information to public and policymakers about literacy promoting growth in literacy teaching and learning. WA Read Standards: 3, 5 IRA Standards: 2, 6 CTL Standards: 1.4

EDLT 592C. Practicum: Teaching Diverse Learners (1). Development and implementation of an advocacy plan related to the instructional, social, and emotional needs of diverse learners. Implementation of differentiation instruction to meet the needs of all learners. EDLT 592C and EDSE 592C are cross-listed courses, students may not received credit for both. Grade will either be S or U. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDLT 535. Upon successful completion of this course, the student/teacher candidate will be able to:

- Demonstrate knowledge of the theories and methodologies of teaching and learning, including adaptation and modification of

curriculum CBC Standard 2: ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1 Explain the effects of cultural, social, and economic diversity and variations of individual development to inform the development of programs and services for individuals with diverse learning needs. CBC Standard 2: ACC2K3 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7 Demonstrate understanding of how to coordinate educational standards to the needs of individuals with diverse learning needs CBC Standard 2: CC2S3, Standard 5: SA5K3 WARead: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7 Interpret and applies current laws, regulations, and policies as they apply to the administration of services to individuals with diverse learning needs and their families CBC Standard 1: SAIS1 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1 Demonstrates evidence-based practices validated for specific characteristics of diverse learners and settings CEC Standard 3: ACC3K1 WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7 Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WARead: 1,2,4,6 IRA Standard: 1, 2, 4 CTL Standard: 1 Demonstrate use of instructional technology for all learners CBC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3,4, 5, 6, 7 Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CEC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4 **EDLT 592D. Practicum: Assessing and Personalizing Literacy Growth and Development (2).** Experience working with one student implementing literacy assessment

and personalization strategies. Includes the preparation of a case study. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program. Corequisite: EDLT 526 and EDLT 528. Upon successful completion of this course, the student/teacher candidate will be able to: Use of a wide range of instructional practices, approaches, and methods, including technology-based practices, for learners at differing stages of development and from differing cultural and linguistic backgrounds. WA READ 3.1, 6.3, 6.4, 6.5 IRA 2, 4, 5 Use of 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. WA READ 3.1, 6.3, 6.4, 6.5 IRA Standard 2, 4, 5 Use a wide range of assessment tools and practices that range from individual and group informal classroom assessment strategies, including technology-based assessment tools. WA READ 2.1, 6.3 IRA Standard 2, 3, 4, 5 Place students along a developmental continuum and identify students' proficiencies and difficulties. WA READ 1.1.1, 2.2.1 IRA Standard 2, 3, 4, 5 Use assessment information to plan, evaluate, and revise effective instruction that meets the needs of all students, including those at different developmental stages and those from different cultural and linguistic backgrounds. WA READ 2.2.5, 6.3 IRA Standard 2, 3, 4, 5 Communicate results of assessments to specific individuals (students, parents, caregivers, colleagues, administrators, policymakers, policy officials, community, etc.). WA READ 6.2, 6.3.6 IRA Standard 2, 3, 4, 6 Use students' interests, reading abilities, and backgrounds as foundations for the reading writing program. WA READ 6.5.8 IRA Standard 2, 3, 4, 5 Use a large supply of books, technology- based information, and nonprint materials representing multiple levels, broad interests, and

cultural and linguistic backgrounds. WA READ 3.1.1, 4.4, 4.5 IRA Standard 2, 4, 5 Model reading and writing enthusiastically as valued lifelong activities. WA READ 6.5.7, 6.6.5 IRA Standard 2, 4, 5, 6 Motivate learners to be lifelong learners. WA READ 6.6 IRA Standard 2, 4, 5 Work with colleagues to observe, evaluate, and provide feedback on each other's practice. WA READ 5.3 IRA Standard 6 **EDLT 596. Individual Study (1-6).** May be repeated for credit. **EDLT 597. Graduate Research (1-10).** Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on Course of Study for the Master's degree. **EDLT 598. Special Topics (1-6).** May be repeated for credit. **EDLT 599. Seminar (1-5).** May be repeated for credit. **EDLT 696. Individual Study (1-6).** May be repeated if subject is different. **EDLT 698. Special Topics (1-6).** May be repeated if subject is different. **EDLT 699. Seminar (1-6).** May be repeated if subject is different. **EDLT 700. Master's Thesis, Project Study (1-6).** Designed to credit and record supervised study for the publish-ready article. May be repeated for credit. Grade will either be S or U. Prerequisite: all courses in the Master of Education, Literacy Program, and permission of the chair of student's graduate faculty supervisory committee. **EDSE 501. Orientation, Foundations, and Issues (Put on reserve 9/16/16) (2).** Orientation of the graduate student to the Special Education Master's Degree Program. Current issues in the identification, assessment, instruction, and evaluation of students with disabilities will be explored through readings, discussions, and presentations. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.) Prerequisite: teaching experience. **EDSE 503. High-prevalence Categories of Exceptionality (Put on Reserve 9/16/16.) (3).** Etiology, social issues, and management

strategies for students with mental retardation, learning disabilities, and behavioral disorders. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.) Prerequisite: EDSE 501.

EDSE 512. Educational Rights of Individuals with Disabilities (3).

Designed to prepare graduate students to use legal decisions to assist individuals with disabilities and their families in creating an appropriate educational environment. Prerequisite: EDSE 501 or permission of instructor.

EDSE 520. Behavioral Intervention for Students with Disabilities (5).

This course examines the evidence based and practical strategies for evaluating and implementing behavioral interventions for students with disabilities. Prerequisite: admission to the Masters of Education, Special Education Program.

Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of the effects of the cultural and environmental milieu of the individual and the family on behavior and learning CEC Standard 2: ACC2K1 CTL Standard: 1

Demonstrate understanding of how using the national and state education laws and regulations can assist in providing appropriate services for students with behavioral needs CEC Standard 1: ACC1K4, ACC1K5, LDSIK1

Demonstrate understanding of how behavioral interventions can promote a free appropriate public education in the least restrictive environment CEC Standard 1: ACC1S1 CTL Standard: 1

Identify current research on effective teaching and program development for individuals with behavioral disabilities CEC Standard 2: LDS2K1, and LDS2K2 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate understanding of how to coordinate educational standards to the needs of individuals with behavioral needs CEC Standard 2: ACC2S3, Standard 5: SA5K3 CTL Standard: 1; 3; 4; 6; 7

Identify evidence-based practices validated for specific characteristics

of learners with behavioral needs CEC Standard 3: ACC3K1 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with behavioral needs CEC Standard 2: SA2K2 CTL Standard: 1

Demonstrate use of instructional technology for learners with behavioral needs CEC Standard 2: SA2S3 CTL Standard: 1, 2, 3, 4, 5, 6, 7

Explain the relevance/importance of social and cultural factors within evidence-based classroom practice CEC Standard 2: ACC2K1 CTL Standard 1, 2, 5, 6, 7

Participate as a member of a professional learning community in order to reflect and improve upon classroom practice CEC Standard 4: ACC4K2 CTL Standard 1.4

Design methods for assessing and evaluating programs, and link ongoing behavioral progress monitoring data to evaluate instructional effectiveness CEC Standard 4: ACC4S1, LDS4S1, LDS4S2 CTL Standard 7

Design and implement research activities to examine the effectiveness of behavioral practices CEC Standard 4: ACC4 S2 CTL Standard 7 CTL Standard 7

Use educational research to improve instruction and intervention strategies for individuals with behavioral needs CBC Standard 3: ACC3 S3 CTL Standard 5, 7

EDSE 521. Functional Behavioral and Instructional Assessment (Put on reserve 9/16/17) (3).

Current effective assessment processes will be defined, developed, and defended. Included will be goal establishment, rationale for assessment processes utilized, and clarification of administrative procedures. (Put on reserve 9/16/17. Will go inactive 8/24/2020.) Prerequisite: EDSE 501.

EDSE 522. Collaboration/Consultation (5).

Designed to prepare educators working with special needs to critically reflect upon and to identify specific strengths in the areas of inter/intra personal skills. Prerequisite: admission to the

Masters of Education, Special Education Program.

Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate an understanding of the centrality and importance of consultation and collaboration of the roles within special education. CBC Standard 6: LDS6, K1 CTL Standard: 5 NCATE Standard: 1

Demonstrate knowledge of the services of consultation and collaboration for individuals with exceptional learning needs CBC Standard 2: ACC2 K3, Standard 6: ACC6 S1 CTL Standard: 1, 2 NCATE Standard: 1, 4

Analyze and articulate how special education teachers promote understanding, resolve conflicts, and build consensus among both internal and external stakeholders to provide services to individuals with exceptional learning needs and their families CBC Standard 6: LDS6 S1, ACC6 K1, ACC6 S2 CTL Standard: 2 NCATE Standard: 1, 4

Demonstrate current knowledge of research on stages and models in both collaboration and consultation CBC Standard 3: ACC3 S1, Standard 6: LDS6 S2 CTL Standard: 3, 4, 5 NCATE Standard: 1

Demonstrate knowledge of ethical and legal issues related to consultation and collaboration. CBC Standard 5: ACC5 K1, Standard 6: ACC6 K2 CTL Standard: 4, 5 NCATE Standard: 1

Demonstrate an understanding of the possible interactions of language, diversity, culture, and religion with contextual factors CEC Standard 1: ACC1 K1, Standard 6: LDS6 S1 CTL Standard: 6 NCATE Standard: 4

Use collaboration and consultation to enhance opportunities for individuals with exceptional learning needs CEC Standard 6: ACC6 K2, ACC6 S1 CTL Standard: 1, 2, 6 NCATE Standard: 1, 4

EDSE 524. Curriculum and Assessment for Students with Disabilities (5).

The course examines the evidence-based and practical strategies for evaluating and implementing curriculum and assessments for students with disabilities. Prerequisite: admission

to the Master of Education, Special Education Program.

Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of the effects of the cultural and environmental milieu of the individual and the family on behavior and learning CEC Standard 2: ACC2K1 CTL Standard: 1 NCATE Standard: 1

Identify current research on emerging technologies, curriculum, and effective teaching strategies for individuals with learning disabilities CEC Standard 2: LDS2 KI CTL standard: 1, 3, 5

Demonstrate knowledge of the theories and methodologies of teaching and learning, including adaptation and modification of curriculum CEC Standard 2: ACC2K2 CTL Standard: 1 NCATE Standard: 1, 4

Use understanding of the effects of cultural, social, and economic diversity and variations of individual development to inform the development of programs and services for individuals with diverse learning needs. CEC Standard 2: ACC2K3 CTL Standard: 1, 2, 4, 5, 6, 7 NCATE Standard: 1, 4

Demonstrate understanding of how to coordinate educational standards to the needs of individuals with diverse learning needs CEC Standard 2: ACC2S3, Standard 5: SA5K3 CTL Standard: 1; 3; 4; 6; 7 NCATE Standard: 1, 4

Identifies evidence-based practices validated for specific characteristics of diverse learners and settings CEC Standard 3: ACC3KI CTL Standard: 1, 2, 4, 5, 6, 7 NCATE Standard: 1, 4

Demonstrates knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning need CEC Standard 2: SA2K2 CTL Standard: 1 NCATE Standard: 1,4

Demonstrates use of instructional technology for all learners CEC Standard 2: SA2S3 CTL Standard: 1, 2, 3,4, 5, 6, 7 NCATE Standard: 1, 4

Explains the relevance/importance of social and cultural factors within evidence-based classroom practices.

CEC Standard 2: ACC2K1 CTL Standard 1, 2, 5, 6, 7 NCATE Standard 1, 4

Participates as a member of a professional learning community in order to reflect and improve upon classroom practices CEC Standard 4: ACC4K2 CTL Standard 1.4 NCATE Standard 1

Design methods for assessing and evaluating programs, and link ongoing progress monitoring data to evaluate instructional effectiveness CEC Standard 4: ACC4SI, LDS4SI, LDS4S2 CTL Standard 7

Design and implement research activities to examine the effectiveness of instructional practices CEC Standard 4: ACC4S2 CTL Standard 7

Use educational research to improve instruction, intervention strategies, and curricular materials CEC Standard 3: ACC3 S3 CTL Standard 5, 7

EDSE 525. Instruction and Assessment for Students with Disabilities (5). Designed to examine evidence-based and practical strategies for evaluating and implementing instruction and assessments for students with disabilities. Prerequisite: admission to the Masters of Education, Special Education Program.

EDSE 534. Learning Theories: Research and Applications (4). Advanced study of learning theories. Clarification of teacher beliefs, adjustment of evidence-based instructional practices with theory and research. By permission of instructor.

Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of major learning theories CEC Standard 2: ACC2K2 WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard: 1 CTL Standard: 1

Demonstrate knowledge of the relationship between theories and methodologies of teaching and learning including adaptation and modification of curriculum for students with disabilities/diverse needs CEC Standard 2: ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1

Research how factors, such as school political, socioeconomic,

emotional, culture, language, dialect, motivation, behavior, cognition, and ethnic diversity among learners can influence learning CEC Standard 2: ACC2K1 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7

Reflect and apply learning theories to current classroom practice CEC Standard 2: ACC2S3, Standard 5: SA5K3 WARead: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7

Demonstrate knowledge of developmentally appropriate strategies for modifying instructional methods and learning environment CEC Standard 2:

ACC2K6 WARead: 1,2,3,6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1 Read, analyze, and critique learning theory research CEC Standard 3: ACC3S3 WA Read: 1, 5,2; 6.1 IRA Standard: 1, 4; 6 CTL Standard: 1; 4 Refine personal theories and beliefs CEC Standard 2: ACC2S3 WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WA Read: 1, 2, 4, 6 IRA Standard: 1, 2, 4 CTL Standard: 1

Demonstrate knowledge of theories and practices for use of instructional technology for all learners CEC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3,4, 5, 6, 7

Explain the relevance/importance of social and cultural factors within evidence-based classroom practices. CEC Standard 2: ACC2K1 WA Read: 3; 4; 6 IRA Standard 2, 3, 4. 5 CTL Standard 1, 2, 5, 6, 7

Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CEC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4

EDSE 535. Teaching Diverse Learners (5). Advanced study of current research as it relates to the instructional, social, and emotional needs of diverse learners and differentiation of instruction to meet

the needs of all learners. Specific focus on critical role of teacher-leaders as educators in their classrooms, schools, and communities. EDLT 535 and EDSE 535 are cross-listed courses, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 592C. Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate knowledge of the effects of the cultural and environmental milieu of the individual and the family on behavior and learning CEC Standard 2: ACC2KI WA Read: 1.2.8; 3.2.6; 6.1 IRA Standard: 1 CTL Standard: 1

Demonstrate knowledge of the theories and methodologies of teaching and learning, including adaptation and modification of curriculum CEC Standard 2: ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1

Explain the effects of cultural, social, and economic diversity and variations of individual development to inform the development of programs and services for individuals with diverse learning needs. CEC Standard 2: ACC2K3 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate how to coordinate educational standards to the needs of individuals with diverse learning needs CEC Standard 2: ACC2S3, Standard 5: SA5K3 WARead: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7

Interpret and apply current laws, regulations, and policies as they apply to the administration of services to individuals with diverse learning needs and their families CEC Standard 1: SA1S1 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1

Communicate a personal inclusive vision and mission for meeting the needs of individuals with diverse learning needs and their families CEC Standard 1: SA1S5 WA Read: 1, 5.2; 6.1 IRA Standard: 1, 4; 6 CTL Standard: 1; 4

Identify evidence-based practices validated for specific characteristics of diverse learners and settings CEC Standard 3: ACC3KI WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate knowledge of programs and strategies that promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WA Read: 1, 2, 4, 6 IRA Standard: 1, 2, 4 CTL Standard: 1

Demonstrate the use of instructional technology for all learners CEC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3,4, 5, 6, 7

Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CEC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4

EDSE 536. Understanding Research Methods (3). Overview of qualitative and quantitative methods. Develop skills as critical consumers of educational research, and an understanding of evidence-based instructional practice. Focus on action research as a way to analyze and improved instructional practice. EDLT 536 and EDSE 536 are cross-listed classes, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 537. Upon successful completion of this course, the student/teacher candidate will be able to:

Explain the differences between qualitative, quantitative, and action research and when each is appropriate to use CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1

Identify and compare the different types of quantitative, qualitative, and action research. CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1

Identify the ethical issues related to the use of quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1; 3; 4; 6; 7

Demonstrate skills in evaluating quantitative, qualitative, and action research. CEC Standard 3: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1; 4

Demonstrate skills in interpreting quantitative, qualitative, and action research. CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7

Use the format of a research/article CEC Standard 2: WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7

Conduct a review/search of the literature for chosen research problem or question CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1

Use the current APA convention when writing and citing research CEC Standard 3 WA Read: 5.2; 6.1 IRA Standard: 1, 6 CTL Standard: 1

Participate as a member of a professional learning community in order to reflect and improve upon scholarly writing CEC Standard 3; 5; 6 WA Read: 5.2; 5.3; 6.1 IRA Standard 1, 6 CTL Standard 1.4

EDSE 537. Designing and Writing Research (3). Develop skills of designing and writing research. Prepare a research proposal that incorporates principles, processes, values, and roles of action research. Emphasis on conducting action research as a way to analyze and improved instructional practice. EDLT 537 and EDSE 537 are cross-listed courses, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 536. Upon successful completion of this course, the student/teacher candidate will be able to:

Demonstrate skills in evaluating quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1. IRA Standard: 1, 6 CTL Standard: 1; 4

Demonstrate skills in interpreting quantitative, qualitative, and action research. CEC Standard 3 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7

Demonstrate the format of a research article/thesis/project. EC Standard 3 WA Read: 5.2; 5.3; 6.1

IRA Standard: 1, 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Write research proposal CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Write complete draft of background, literature review, and methodology of research. CEC Standard 3; 5 WA Read: 5.2; 5.3; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Use the current APA convention when writing and citing research. CEC Standard 3 WA Read: 5.2; 6.1 IRA Standard: 1, 6 CTL Standard: 1
 Participate as a member of a professional learning community in order to reflect and improve upon scholarly writing. CEC Standard 3; 6 WA Read: 5.2; 5.3; 6.1 IRA Standard 1, 6 CTL Standard 1.4
EDSE 585. Administration and Supervision of Programs for Individuals with Disabilities (Put on Reserve 9/16/16.) (3). The course will focus on the administrative process of designing, developing, preparing for implementation, and evaluating the procedural and substantive safeguards related to administering and supervising programs for individuals with disabilities. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.)
 Prerequisite: EDSE 501.
EDSE 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.
EDSE 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.
EDSE 592C. Practicum: Teaching Diverse Learners (1). Development and implementation of an advocacy plan related to the instructional, social, and emotional needs of diverse learners. Implementation of differentiation instruction to meet the needs of all learners. EDLT 592C and EDSE 592C are cross-listed classes, students may not

received credit for both. Grade will either be S or U. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDLT 535.
 Upon successful completion of this course, the student/teacher candidate will be able to:
 Demonstrate knowledge of the theories and methodologies of teaching and learning, including adaptation and modification of curriculum CEC Standard 2: ACC2K2 WA Read: 1, 2, 3, 6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Explain the effects of cultural, social, and economic diversity and variations of individual development to inform the development of programs and services for individuals with diverse learning needs. CEC Standard 2: ACC2K3 WA Read: 1.3.1; 1.3.2; 1.3.3; 2.2.5; 3.1.5; 4.1; 5.1; 6.3.3; 6.3.4 IRA Standard: 1, 4, 5 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate understanding of how to coordinate educational standards to the needs of individuals with diverse learning needs CEC Standard 2: ACC2S3, Standard 5: SA5K3 WA Read: 1;2;3;4;5;6 IRA Standard: 1, 2, 3, 4, 5, 6 CTL Standard: 1; 3; 4; 6; 7
 Interpret and applies current laws, regulations, and policies as they apply to the administration of services to individuals with diverse learning needs and their families CEC Standard 1: SA1S1 WA Read: 1,2,3,6 IRA Standard: 1, 2, 3, 4 CTL Standard: 1
 Demonstrates evidence-based practices validated for specific characteristics of diverse learners and settings CEC Standard 3: ACC3K1 WA Read: 5 IRA Standard: 6 CTL Standard: 1, 2, 4, 5, 6, 7
 Demonstrate knowledge of programs and strategies promote meaningful school engagement for individuals with exceptional/diverse learning needs CEC Standard 2: SA2K2 WA Read: 1, 2, 4, 6 IRA Standard: 1, 2, 4 CTL Standard: 1
 Demonstrate use of instructional technology for all learners CEC Standard 2: SA2S3 WA Read: 3, 4, 6 IRA Standard: 2, 5 CTL Standard: 1, 2, 3,4, 5, 6, 7

Participate as a member of a professional learning community in order to reflect and improve upon classroom practices CEC Standard 4: ACC4K2 WA Read: 5 IRA Standard 6 CTL Standard 1.4
EDSE 596. Individual Study (1-6). By permission. May be repeated for credit.
EDSE 597. Graduate Research in Special Education (4). Specialty-area research and research report preparation. May be repeated for credit. Prerequisites: EDSE 501 and EDSE 503 and EDF 510.
EDSE 598. Special Topics (1-6). May be repeated for credit.
EDSE 599. Seminar (1-5). May be repeated for credit.
EDSE 682. Internship in Special Education School Administration (Put on reserve 9/16/15.) (4-16). Meets the internship requirements outlined by the State Board of Education for candidates seeking director of special education certification. Permission to register after admittance by the administrator preparation board. Credits earned in an administrative internship will not exceed a total of 16. No more than 4 credits are applicable to the credit requirements for the master's degree. May be repeated for credit. Grade will either be S or U. Put on reserve 9/16/15. Will go inactive 8/24/18.
EDSE 683. Pre-autumn Internship in Special Education School Administration (Put on reserve 9/16/15.) (4). Emphasis is on the responsibilities of special education prior to and during the opening of the school year. By permission. Combines with EDSE 682 for 16 total credits in administrative internship. Grade will either be S or U. Put on reserve 9/16/15. Will go inactive 8/24/18.
EDSE 684. Internship in Professional Affiliated Disciplines (2-12). Students will complete an internship in an affiliated area/discipline of special education, furthering understanding of practices, policies, and supports available and appropriate for individuals with disabilities and their families. Approval for the internship, specific internship goals, and activities will be arranged with the graduate committee chair and

representative from the participating agency. Grade will either be S or U. Prerequisites: EDSE 501, EDSE 503, and EDF 510.

EDSE 696. Individual Study (1-6). May be repeated if subject is different.

EDSE 698. Special Topics . May be repeated if subject is different.

EDSE 699. Seminar (1-6). May be repeated if subject is different.

EDSE 700. Master's Thesis and/or Project Study (1-6). Designed to credit and record supervised study for the Master's thesis, non-thesis project, studio project and/or public recital. Permission of chair of student's graduate faculty supervisory committee. May be repeated up to 6 credits. Grade will either be S or U.

ENG 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. May be repeated for credit. Grading is XG. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.

ENG 504. 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: admission to the online professional and creative writing MA.

Upon successful completion of this course, the student will be able to:
Analyze organizational contexts
Participate in the theoretical discourse and scholarly dialogue surrounding one or more ethical case studies involved in technical communication
Participate in the scholarly dialogue surrounding the cultural considerations involved in technical communication

Develop a mastery of appropriate conventions and formal elements
Demonstrate knowledge of theory and advanced argumentation skills 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
Master the stylistic and genre-based 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 510. Teaching First-year Composition (1-5). The study and practice of the teaching of composition. Associated classroom experience as a teaching assistant or other experience as approved by the department. By permission. May be repeated for credit. Grade will either be S or U. Does not count toward the MA degree.

Upon successful completion of this course, the student will be able to:
Plan effective lessons for English composition courses.

Lead productive classroom discussions.

Analyze issues and concerns arising in their own classrooms and evaluate possible solutions.

Grade composition papers in alignment with a common rubric.

ENG 511. Introduction to Graduate Writing (2). Students will be introduced to the study and practice of professional and creative writing at the graduate level. Students will be acclimated to a fully online graduate writing program and propose a course of study for their degree. Prerequisite: admission to the Online Professional and Creative Writing MA Program.

Upon successful completion of this course, the student will be able to:
Demonstrate the ability to analyze forms and structures of writing.

Demonstrate the ability to contribute effectively to peer discussions and critique of writing work in progress.

Incorporate critical mentoring and feedback into revisions of writing.

Identify and describe the goals and outcomes of the Online M.A. in Professional and Creative Writing program.

Design a plan of study for the progress through the M.A. program.

ENG 512. Introduction to English Graduate Study (5). The philosophy of literature; research methods. Required of all MA candidates.

ENG 513. Composition Theory (5). Focuses on research, theories, and practical issues relevant to the teaching of composition.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of rhetorical and pedagogical theories.
Summarize and evaluate theoretical readings.

Identify and analyze issues in composition theory.

Discuss and reflect on their classroom practice.

Demonstrate proficiency in the discourse of composition studies.

Demonstrate proficiency in selecting and arranging instructional material to promote student success in writing courses.

ENG 515. Advanced Studies in American Literature (5). May be repeated for credit under a different subtitle. Prerequisite: ENG 512.

Upon successful completion of this course, the student will be able to:
Demonstrate advanced knowledge of literary and critical theories.

Engage in a scholarly dialogue with a range of secondary criticism and/or critical theory in their own writing.

Demonstrate advanced 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 from multiple texts, and that synthesizes multiple perspectives.

Apply theoretical approaches to literary texts at an advanced level.
Lead discussion using appropriate discussion questions and providing relevant background information.

ENG 517. Advanced Studies in World Literature (5). May be repeated for credit under a different subtitle. Prerequisite: ENG 512.

Upon successful completion of this course, the student will be able to:

Demonstrate advanced knowledge of literary and critical theories. Engage in a scholarly dialogue with a range of secondary criticism and/or critical theory in their own writing.

Demonstrate advanced 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. Lead discussion using appropriate discussion questions and providing relevant background information.

ENG 518. Advanced Literary and Critical Theory (5). Advanced study of the theory and practice of various critical perspectives and strategies as they inform the study of literary texts. Prerequisite: ENG 512.

Upon successful completion of this course, the student will be able to: Identify major developments in literary and critical theory evaluate their relevance to the analysis of literary works.

Explain the critical approaches informed by specific theories and analyze their historical and cultural background.

Apply selected critical approaches to literary works.

Recognize and critique the argument underlying critical writings.

Examine at least one theory or theorist in depth.

Evaluate the critical approaches and their theoretical assumptions by way of developing their own critical orientation as literary scholars and critics.

ENG 519. Advanced Studies in British Literature (5). May be repeated for credit under a different subtitle. Prerequisite: ENG 512.

Upon successful completion of this course, the student will be able to: Demonstrate advanced knowledge of literary and critical theories.

Engage in a scholarly dialogue with a range of secondary criticism and/or critical theory in their own writing.

Demonstrate advanced 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 from multiple texts, and that synthesizes multiple perspectives.

Apply theoretical approaches to literary texts at an advanced level.

Lead discussion using appropriate discussion questions and providing relevant background information.

ENG 531. 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. Course will be offered every year (Spring).

Prerequisite: admittance to the TESOL Graduate Program.

Upon successful completion of this course, the student will be able to: Plan and modify instruction at an advanced level to assure learner engagement and achievement.

Explain in great detail how to create supportive environments that promote respectful classroom interactions and engage all learners in purposeful language learning.

Discuss and assess ways to gather and interpret information about learning and performance to promote the continuous intellectual and linguistic development of each learner.

Explain in great detail the importance of knowing who learners are and understanding how their communities, heritages, and goals shape learning and expectations of learning.

Demonstrate advanced proficiency in social, business/workplace or academic. English, with attention to the four traditional skills: speaking, listening, reading and writing.

Apply their higher-level understanding of the processes by which learners acquire a new language in and out of classroom settings to support adult language learning.

Design advanced 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 532. Phonetics and Phonology (5). Study of English phonetics and phonology as well as pronunciation pedagogy.

Prerequisite: Admission to the TESOL Graduate Program.

Upon successful completion of this course, the student will be able to: Describe the sound system and sound changes in connected speech of English.

Analyze how the sound system intersects with morphology, orthography, listening, and speaking. Conduct comparative spectrographic analyses of speech samples by both learners and native speakers.

Conduct and report research on interlanguage (or developmental) phonology.

Build a repertoire of and apply both time-tested and newer techniques, methodologies, and resources. Evaluate diagnostic tools and assessment measures.

ENG 533. Second Language Acquisition (5). Integrated historical and contemporary views on language and non-language factors affecting second language acquisition and on methodology in second language teaching and learning. Co-prerequisites: ENG 532 and admission to the Graduate English TESOL Program.

Upon successful completion of this course, the student will be able to: Collect, elicit, process, and analyze interlanguage data.

Review the role of previously known languages and language transfer.

Examine linguistic perspectives on second language acquisition.

Study non-language influences on second language acquisition.

Discuss connections between second language research and pedagogy.

ENG 535. Linguistics, Literature, and TESOL (5). Linguistic perspectives on and approaches to literature, with an emphasis on poetry and prose. Prerequisite: admission to the TESOL Graduate Program.

Upon successful completion of this course, the student will be able to:
Explain how linguistic form and literary form are related and interact.

Define how literary linguistics is a coherent field of inquiry in its own right.

Analyze sound patterning of verse using different approaches, generative metrics in particular, introduced in the course.

Conduct stylistic analysis of literary texts.

Develop applications for ESOL teaching and learning.

ENG 537. Pedagogical Grammar and Discourse (5). Study of English grammar and approaches to grammar instruction. Prerequisite: admission to the TESOL Graduate Program.

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. Structures include subject-verb agreement, tense and aspect modal auxiliaries, negation, questions, imperatives, reference and possession, partitives, collectives, and quantifiers.

Articulate how attention to the above can both contribute to the linguistic development ESOL students and stimulate their own professional growth.

Demonstrate connections between theory and practice.

Evaluate textbooks that include a focus on grammar and assessment tools.

Discuss topics in discourse analysis, using appropriate terminology.

ENG 538. Pedagogical Grammar and Discourse II (5). Advanced study of English grammar, discourse, and approaches to grammar instruction. Prerequisite: ENG 537.

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 the above can both contribute to the linguistic development ESOL students and stimulate their own professional growth.

Demonstrate connections between theory and practice.

Evaluate textbooks and assessment instruments.

Analyze various types of discourse.

ENG 556. 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: admission to the Online Professional and Creative Writing MA Program or instructor consent.

Upon successful completion of this course, the student will be able to:
Articulate foundational importance of key rhetorical thinkers and theorists from a range of historical periods or from a range of theoretical approaches.

Demonstrate the ability to analyze and critique discursive objects using rhetorical theories.

Closely analyze a small selection of rhetorical theories or approaches. (graduate level)

Synthesize a theoretical perspective based on a small selection of rhetorical theories or approaches. (graduate level)

Critique rhetorical cases or documents using a perspective drawn from a small selection of rhetorical theories of approaches. (graduate level)

Lead discussions of current case studies or critical analyses involving rhetorical analysis and/or criticism. (graduate level)

Engage in scholarly discourse surrounding current case studies or critical analyses that deploy rhetorical analysis or criticism.

Demonstrate the ability to generate proposals or ideas capable of generating new knowledge in the field of rhetoric. (graduate level)

ENG 564. Advanced Fiction Writing (5). Graduate fiction writing workshop examining the craft of literary fiction, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 564 and ENG 464 are layered courses; students may not receive credit for both.

Prerequisite: admission to the online professional and creative writing MA.

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, setting, theme and insight into human nature.

Demonstrate advanced proficiency with point of view, diction, and syntax to achieve a distinctive voice.

Apply revision techniques at an advanced level modeled in the text to clarify and deepen original passages and scenes.

Engage in scholarly dialogue involving 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.

Lead discussions of literary performances and draft techniques for individual presentations.

Analyze the literary market and develop strategies for publication.

ENG 565. Advanced Poetry Writing (5). Graduate poetry writing workshop examining the genres within poetry, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 465 and ENG 565 are layered courses; a student may not receive credit for both.

Prerequisite: admission to the online professional and creative writing MA.

Upon successful completion of this course, the student will be able to:

Apply revision techniques at an advanced level to the development of publishable quality poems.

Demonstrate proficiency with the structures and conventions of contemporary poetry books and engage in advanced comparative analysis of contemporary creative work.

Develop strategies that lead to publication success.

ENG 566. Advanced Creative Nonfiction (5). Graduate creative nonfiction writing workshop examining the craft of creative nonfiction, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 566 and ENG 466 are layered courses; a student may not receive credit for both. Prerequisite: admission to the online professional and creative writing MA.

Upon successful completion of this course, the student will be able to: 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.

Demonstrate advanced revision/editing skills to become their own best editors.

Learn to perform their work at an advanced level.

Engage in scholarly dialogue, analyze cotemporary examples of creative non-fiction, taking advantage of visiting writers, consider how such works are structured and arranged, and analyzing them from the writer's point of view, considering the tools of the craft.

ENG 568. Contemporary Writers Colloquium (5). Mixed-genre writing workshop featuring a schedule of visiting writers.

Students will read work by visiting writers, develop critical thinking about craft, view readings and craft talks, 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. Prerequisite: at least one of the following 400-level writing workshop classes: ENG 465 or ENG 464 or ENG 466.

Upon successful completion of this course, the student will be able to:

Demonstrate an engagement in scholarly discourse regarding forms and structures of creative writing (fiction, creative nonfiction, and poetry).

Demonstrate the incorporation of critical mentoring and feedback into the revision of creative writing.

Develop genre craft techniques to the creation of poetry, fiction, or creative nonfiction.

Develop criteria to use in comparative analysis of contemporary creative writing.

Demonstrate an effective contribution to discussions of creative work-in-progress at an advanced level.

Demonstrate an understanding of the publication process--from initial creation to manuscript submission.

Graduate students will apply revision techniques at an advanced level.

Identify and analyze education and career options in creative writing.

Analyze literary readings by and prepare interview questions for visiting writers.

Demonstrate knowledge of the contextualization of pieces of contemporary creative writing within current critical discourses and cultural contexts.

ENG 572. Workplace Writing Research Methods (5). Students will develop a mastery of workplace writing research methods and methodologies. ENG 572 and ENG 472 are layered courses; a student may not received receive credit for both. Prerequisite: ENG 310 or permission of instructor; admission to the Online Professional and Creative Writing MA Program.

Upon successful completion of this course, the student will be able to:

Demonstrate advanced knowledge of a variety of workplace writing research methods (such as usability testing, interviewing, focus groups, object-based techniques, observations, and surveys).

Engage in theoretical discourse and scholarly dialogue surrounding a variety of workplace writing research methods.

Demonstrate the ability to plan, justify, and champion one or two specific workplace writing research methods at the professional level.

Plan, conduct, and create commonly used written report documents supporting a research project using a specific workplace writing research method.

Demonstrate a professional-level ability to present findings from a workplace writing research project.

Demonstrate advanced collaboration skills.

Engage with theoretical discourse and scholarly dialogue concerning the ethics of workplace writing research and will conduct ethical low-risk research with human participants.

ENG 573. 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: admission to the MA in Professional and Creative Writing Program, OR by instructor permission.

Upon successful completion of this course, the student will be able to:

Engage in advanced participation, leadership, and interaction as an active and member of the class learning community.

Demonstrate an advanced documented writing process that incorporates revision in response to instructor and peer response feedback.

Implement advanced and 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 advanced writing and document design principles (style, tone, graphics, page design) for these audiences.

Synthesize the required elements of a grant proposal at an advanced level: cover letters or forms, abstracts/executive summaries, tables of contents, narratives incorporating problem statements,

purpose statements, goals and objectives, and budgets (if required).

Evaluate the theoretical issues facing professional grant writers and their clients at an advanced level.

ENG 580. CWWP I: Writing Pedagogy (6). Summer course in which K-12 teachers learn to implement writing and language arts across the curriculum and prepare to lead teacher in-service workshops. Participants must register concurrently for EDCS 581. By permission.

ENG 585. Publishing Strategies and Practice for Writers (5). Students will develop skills for creating a multi-platform writer's profile, and strategies for effectively presenting, promoting and expanding the audience for their work. Permission by instructor. Prerequisite: 27 credits in the online professional and creative writing MA.

Upon successful completion of this course, the student will be able to: Demonstrate the development of social media skills.

Demonstrate the ability to effectively analyze specific audiences, publications, and markets.

Identify and research publication venues.

Demonstrate an understanding of industry conventions (agents, query letters, book proposals, etc.) for a range of genres

Apply written and visual rhetoric to create a public presentation of work and create a web presence for self-marketing.

Demonstrate the ability to effectively present and promote one's work, as well as expanding the audience for one's work.

ENG 588. Thesis/Project Colloquium (2). This course covers applied English research skills, including forms of inquiry, literature reviews, annotated bibliographies, and scholarly conventions. Students will produce a formal research proposal.

Prerequisites: ENG 512 and graduate GPA of 3.7 or higher.

Upon successful completion of this course, the student will be able to: Develop a thesis/project topic and define the scope of their study

Formulate research questions appropriate to their thesis/project
Identify and use appropriately scholarly research tools
Identify and use conventions of scholarly research, thesis requirements, and creative manuscripts

Cite and document research according to MLA conventions

ENG 589. Portfolio (3). Students prepare an end of program portfolio of professional-level writing projects. Permission of department. Prerequisite: 37 credits in the Online Professional and Creative Writing MA Program.

Upon successful completion of this course, the student will be able to: Assemble a representative online group of professional projects from M.A. program classwork for portfolio.

Apply revision techniques at an advanced level to develop projects for portfolio.

Contribute effectively and meaningfully to peer discussion of works-in-progress for portfolio.

Prepare and present an online portfolio of revised professional-level projects representing culminating work in M.A. program.

ENG 591. Workshop (1-6). May be repeated for credit.

ENG 592. Practicum (1-5). Supervised field experience in literacy education or teaching English as a second

language/foreign language. May be repeated for credit. Grade will either be S or U.

ENG 595. Graduate Research (2-10). For students doing advanced research, writing, and study. May be repeated for credit. Grade will either be S or U. Students using faculty time and departmental resources for thesis work must be registered for ENG 595 or 700. May not be included in the course of study for the master's degree. Prerequisite: ENG 512.

ENG 596. Individual Study (1-6). May be repeated for credit.

ENG 598. Special Topics (1-6). May be repeated for credit.

ENG 599. Seminar (1-5). May be repeated for credit.

ENG 696. Individual Study (1-6). May be repeated if subject is different.

ENG 698. Special Topics (1-6). May be repeated if subject is different.

ENG 699. Seminar (1-6). May be repeated if subject is different.

ENG 700. Master's Thesis/Project (1-6). Designed to credit and record supervised study for the master's thesis/project. May be repeated up to 6 credits. Grade will either be S or U.

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 ESL90OC 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.

ETSC 500. Professional Development (1-5).

Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. Formerly IET 500, students may not receive credit for both. May be repeated for credit.

ETSC 501. Industrial and Academic Research Methods (4).

An introduction to the research methods and tools used for industrial research. Topics include problem definition, review of literature, types of research, research design, analysis of results, writing a research proposal, writing a research paper, and analytical tools used for applied research by engineers and technologists in industry. Formerly IET 501, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Describe various qualitative and quantitative research methods.

Write succinct problem statements and outline research strategies for addressing these problems using appropriate research methods.

Write a research proposal and outline the body of a research report and a thesis paper according to university and APA style requirements.

Critically evaluate published research.

Apply ethical standards to research projects.

Identify and find sources of information for conducting reviews of literature.

Perform fundamental descriptive and parametric statistical calculations, using Microsoft Excel, and correctly interpret the results. Develop linear mathematical models of industrial processes and use software to solve sets of linear equations.

Use software to perform linear regression on a set of data pairs.

Use software to generate a times series forecast using the moving average, exponential smoothing, trend projection, seasonal variations, and seasonal variations with trend methods.

Set up and solve minimization and maximization problems using graphical linear programming techniques.

Use software to design and run a set of experiments using basic two-level factorial design of experiments (2k DOE) methods, and to analyze the results using graphical and mathematical methods.

ETSC 512. Alternative Energy Systems (4). Study of alternative energy technology and their societal issues. Similar to MET 412. Credit for both granted only by department chair. Formerly IET 512, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Develop an understanding of the practical aspects of alternative energy systems.

Gain an appreciation of the technical, geopolitical, economic, and environmental aspects of energy resources and its conversion to other useful forms.

Become familiar with the terminology in the energy conversion technical field so that he or she may read energy literature with understanding.

Become a better informed citizen who can take a leadership position when discussions arise dealing with energy issues.

ETSC 521. Product Design and Development (4). Methodology for the design and development of industrial and commercial products from conceptual stage to saleable product. Three hours lecture and two hours laboratory per week. Formerly IET 521, students may not receive credit for both. Prerequisite: MET 419.

Upon successful completion of this course, the student will be able to: Learn the meaning of product design in terms of industrial and consumer products.

Gain experience with the integrated product and process design and development team method.

Learn how to translate customer requirements into products.

Learn how to select materials under constraints of strength, manufacturability, and cost.

Learn the process of developing a design to a consumer ready product.

ETSC 523. Development of Emerging Technologies (4). Study of technological advances in materials, manufacturing, electronics, and instrumentation, with an emphasis on innovative design, development of new products and services, and strategic management of intellectual property. Formerly IET 523, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Locate, interpret, and synthesize information about emerging technologies in various disciplines. Describe how technology evolves and discuss the various patterns of technology adoption and diffusion. Describe the various mechanisms by which new technologies evolve, to differentiate between incremental and radical changes, and to apply these principles on demand, generating innovative ideas driven by need and/or by opportunity. Describe how to identify customer needs and how to satisfy those needs by the development of an appropriate set of product or service features, by correct positioning in the market, and by employing appropriate pricing strategies.

Evaluate the feasibility of developing various emerging technologies within the context of addressing the needs of individuals, organizations, and societies. Devise an appropriate organizational strategy for the management of technology and the development of products and services.

Apply rational decision making to select from among potential technology development projects. Map out organizational structures that facilitate the accomplishment of strategies for innovating and developing emerging technologies. Identify appropriate means for protecting intellectual property and maintaining competitive advantages.

ETSC 524. Quality Control (4). Provides foundation for

understanding and applying statistical quality control techniques and product reliability procedures.

Similar to ETSC 380. Credit for both granted only by department chair. Formerly IET 524, students may not receive credit for both.

Prerequisites: OMIS 221 or permission of instructor.

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 525. Systems Analysis and Simulation (4). Theoretical and practical techniques for modeling and analyzing various systems including product designs, manufacturing facilities, and fluid/thermal systems. System testing and evaluation methodology will be investigated. Formerly IET 525, students may not receive credit for both. Prerequisite: MET 327 or permission of instructor.

Upon successful completion of this course, the student will be able to: Learn the methods of modeling physical systems.

Gain a sound physical understanding of the basic principles of automatic controls.

Learn how to simulate the performance of a physical system such as a production work cell or a fluid/thermal system.

Gain experience in system testing and evaluation.

ETSC 526. Engineering Project Cost Analysis (4). Techniques of economic cost analysis and modeling applied to engineering projects. Similar to ETSC 301. Credit for both granted only by department chair. Formerly IET 526, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:

Describe the criteria for making economic based decisions.
 Apply cash flow analysis problem solving techniques such as: net present worth, future worth, equivalent uniform annual worth and arithmetic gradient.
 Understand and calculate nominal and effective interest rates w.r.t. loans, and other economic factors.
 Understand and apply present worth analysis techniques.
 Implement annual cash flow analysis.
 Calculate minimum life cycle cost tradeoffs between initial costs, salvage value and repair costs.
 Apply rate of return (ROR) analysis to determine the internal rate of return (i^*) and compare it to the minimum attractive rate of return (MARR).
 Apply and calculate problems relating to: incremental rate of return analysis, Future worth, benefit-cost ratio analysis, payback period, sensitivity and breakeven analysis.
 Understand how to gather information relating to different stocks and the stock market or determine the costs of purchasing a home.

ETSC 530. Fundamentals of Lasers (4). Overview of laser technology with emphasis on characteristics, safety, and application. Four hours lecture per week. Formerly IET 530, students may not receive credit for both. Prerequisite: PHYS 113.

ETSC 532. Generation and Transmission of Electrical Power (4). A study of the generation and transmission of electrical energy. Similar to EET 432. Credit for both granted only by department chair. Formerly IET 532, students may not receive credit for both. Prerequisite: EET 332.

Upon successful completion of this course, the student will be able to:
 Have an understanding of three-phase power systems.
 Learn the concepts of dynamic system performance.
 Understand power flow concepts.
 Have an understanding of transmission line faults and means of protection.

ETSC 540. Work Design and Facilities Layout (4). Analysis of

work process requirements and translation into work designs, and into space, layout, and adjacency requirements. Optimization of throughput, efficiency, workflow, safety, health, and usability. Integration of material handling, storage systems, and mechanical systems. Formerly IET 540, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
 Design the layout of production workspaces and equipment, using the least amount of space that will still achieve optimum production workflow.

Incorporate adjacency requirements between and among administrative offices, production areas, and service departments.

Identify the types of material handling systems and equipment that are required to facilitate a work process and select equipment to meet the needs of the work to be performed.

Integrate material handling systems and building electromechanical systems into the design of a work process and the layout of the facility for that process.

Design a manufacturing workstation that satisfies production demands while adhering to ergonomic principles that protect the workers' safety and health.

Develop time standards.

Assign tasks to workstations, balance the work line, and optimize throughput.

Identify issues that require the application of human-factors and ergonomics principles, and the use of safety and health guards, and they will be able to select appropriate measures to address the concerns.

ETSC 541. Industrial Operations Management (4). Operations Management within the context of Industrial Engineering. Topics include, but are not limited to, forecasting, scheduling, lean production, capacity management, inventory management, aggregate planning, supply chain management, logistics, maintenance and reliability, and decision making. Formerly IET 541, students may not receive credit for both. Prerequisite:

ETSC 540 or permission of instructor.

Upon successful completion of this course, the student will be able to:
 Select appropriate forecasting methods and correctly apply those methods to generate product demand forecasts.

Assess the capacity of work processes, equipment, and facilities, to compare this assessment with forecasted demands for the work in question, and to suggest appropriate decisions about matching capacity with demand.

Create aggregate plans that specify the production capacity, inventory, labor, overtime, and subcontracting needs for given product mixes and demand levels and to compute the costs associated with resource selection options available to meet demand.

Calculate system reliability and mean time between failures for various system components, and they will be able to suggest appropriate strategies for improving system performance.

Select appropriate maintenance methods matching the needs placed on production by market demand with constraints presented by capacity and by the condition of a facility and its equipment and systems.

Configure storage facilities and specify material handling systems to accommodate the needs presented in various scenarios, given the inventory management practices being used in that facility .
 Identify how quality requirements such as ISO9001 and how engineering standards impact the collaboration between partners in a supply chain in terms of everyday operations and in terms of governing the product development process.

Apply decision making tools such as decision tables, decision trees coupled with expected monetary value.

Determine optimal solutions for constrained problems using linear programming techniques and Monte Carlo analysis.

ETSC 552. 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 analysis, and professional problem solving.

Develop and present research on sustainability. Formerly IET 552, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Learn about development of LEED, its role in the construction industry, and state regulations.

Analyze green building techniques. Able to apply LEED to building design.

Tabulate costs for green building elements as compared to lowest cost or traditional materials and methods.

Identify major items for LEED consideration: site, water, energy, materials, indoor air, innovation Demonstrate flexibility toward best practices.

Demonstrate the compromises necessary between best practices and project budget. Compare benefits between different options. Demonstrate awareness of the various groups' responsibility: owner/architect/contractor.

Know what expertise and experience is most desirable in a contractor firm for achieving a smooth process in the design and construction of a green building (or other hardscape).

Demonstrate written communication skills.

Demonstrate oral communication. Incorporate green construction concepts into other school, work, or home projects.

Explain green construction concepts into ideas for improving projects within the media.

Demonstrate the ability to perform research on sustainability.

ETSC 555. 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; student may not receive credit for both. Instructor consent should be based on student industrial experience and career

goals. Formerly IET 555, students may not receive credit for both. By permission.

Upon successful completion of this course, the student will be able to: Understand the role of people in Project Management.

Able to determine the effects of change, develop leadership skills, communicate, work in teams, and understand the how to create a constructive climate of diversity.

Describe and work with two scheduling techniques: Gantt charts and CPM.

Understand and implement; goal setting, resource management, and project control techniques.

Describe in writing and orally a real-world project management system.

Define the variables used in developing a risk assessment and analyze the project impacts based on the associated risks.

ETSC 560. Finite Element Analysis (4). Computerized modeling of structural, vibrational, and thermal design problems. Lecture and laboratory. Similar to MET 420. Credit for both granted only by department chair. Formerly IET 560, students may not receive credit for both. Prerequisites: ETSC 160 and MET 426.

Upon successful completion of this course, the student will be able to: Learn the basic principles and applications of finite element analysis (FEA).

Use appropriate FEA techniques for given engineering scenarios.

Generate valid FEA results for given engineering scenarios.

Solve engineering problems through approximations, convergence and good engineering judgment.

Be fluent in the language of finite element analysis and be able to use common FEA software applications.

ETSC 577. Robotics (4). Microprocessor applications in robotics, automated systems, and digital control. Lecture and laboratory. Similar to EET 477. Credit for both granted only by department chair. Formerly IET 577, students may not receive credit for both. Prerequisites: EET 375 and EET 342.

Upon successful completion of this course, the student will be able to:

Link to the World-Wide-Web sites of robotic information.

Learn the concepts of Computer-Integrated Manufacturing (SIM). Learn the theory of practical robots. Learn how to program robots to perform a specific task.

Gain the experience of sending commands to robots via the Web and observing robotic manipulation.

ETSC 582. Plastics and Composites (4). Composition, characteristics and classifications of plastics and composite materials incorporating design, industrial applications, processing, and fabrication. Similar to MET 382. Credit for both granted only by department chair. Formerly IET 582, students may not receive credit for both. Prerequisites: CHEM 111/111L or CHEM 181/181L.

Upon successful completion of this course, the student will be able to: Classify and Identify Polymers and Composites in engineering context Characterize polymer constituents and describe their life cycle

Design and process polymers and composites to obtain predicted properties Fabricate basic polymer/composite parts Select and improve polymer/composite processes for increased manufacturing efficiency

ETSC 583. Ceramics and Composites (4). Composition characterization and classification of ceramics and related composite materials incorporating industrial applications, processing, and fabrication. Similar to MET 483. Credit for both granted only by department chair. Formerly IET 583, students may not receive credit for both. Prerequisites: CHEM 111 or CHEM 181.

Upon successful completion of this course, the student will be able to: Classify and identify ceramics and 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.

Select and improve ceramic/composite processes for increased manufacturing efficiency.

ETSC 589. Master's Capstone (3-4). This seminar provides a review of the required courses and preparation for and administration of the comprehensive exam taken by MSET students. The review will also contribute to the program curriculum development. Formerly IET 589, students may not receive credit for both. Prerequisites: within 10 credits of graduation or permission of the instructor and admission to the Master of Science in Engineering Technology Program.

Upon successful completion of this course, the student will be able to: Articulate the utility and relative importance of each of four required courses and three elective courses - including techniques, knowledge, attitudes, and skills content. Achieve readiness for the comprehensive examination through group reviews of the course subject matter to be examined.

Evaluate the quality of instruction, course content, course goals, teaching methods, and tools used in the MSET courses in order to facilitate professional practice and teaching capability.

ETSC 592. Field Studies (1-10). May be repeated for credit. No more than 10 credits may be taken toward the master's degree. Formerly IET 592, students may not receive credit for both. Prerequisite: faculty advisor and department approval.

ETSC 595. Graduate Research (1-6). Conduct research or use for program evaluation activity. Maximum of six credits may be included on the course of study for the master's degree.

Formerly IET 592, students may not receive credit for both. Prerequisite: permission of advisor.

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.

Follow instructors study guide and answer test questions.

ETSC 596. Individual Study (1-6). May be repeated for credit. Formerly IET 596, students may not receive credit for both.

ETSC 598. Special Topics (1-6). Formerly IET 598, students may not receive credit for both.

ETSC 599. Seminar (1-5). May be repeated for credit. Formerly IET 599, students may not receive credit for both.

ETSC 696. Individual Study (1-6). May be repeated if subject is different.

ETSC 698. Special Topics (1-6). May be repeated if subject is different.

ETSC 699. Seminar. May be repeated if subject is different.

ETSC 700. Master's Thesis, Project Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Formerly IET 700, students may not receive credit for both. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

FCL 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

FCL 501. Research Methods (4). An examination of methods of conducting research on human behavior with an emphasis on application to family science and child life. Students conduct a research study in the area of family and child life. Formerly FCSG 501, 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: Evaluate published empirical articles in terms of research design, measurement, sampling, and causal inference.

Formulate research questions and specific hypotheses appropriate for their research question and drawn from the body of existing research. Conduct a research study by identifying measurement strategies, research designs, and sampling

methods appropriate for their research question.

Conduct basic statistical analyses using statistical software.

Evaluate their research findings and write meaningful results and conclusions based on the analysis. Prepare and effectively deliver a research presentation.

FCL 502. Statistics (4).

Introduction to the statistics in social sciences. Topics include conducting analyses relevant to family and child life research using computer software, evaluating the results of statistical analyses, and drawing appropriate conclusions. CTE 502, FCSG 502 and FCL 502 are equivalent courses; students may receive credit for only one course. Formerly FCSG 502, students may not receive credit for both. Course will be offered every year (Winter). Upon successful completion of this course, the student will be able to: Identify the role of statistics in the research process and hypothesis testing.

Determine the appropriate statistical analyses based on research hypotheses.

Conduct statistical analyses using statistical software.

Understand and interpret output from statistical analyses.

Evaluate the results of statistical analyses to draw appropriate conclusions about research hypotheses.

FCL 503. 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 cross-listed courses; students may not receive credit for more than one.

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.
 Evaluate the relative quality of research design, measurement, sampling and causal inference in published empirical literature on Family Communication.
 Develop the ability to use current empirical literature to pose pertinent research questions and hypotheses.

FCL 509. Civic Engagement (3). Student will use program of study content knowledge to improve a community situation. UNIV 509, FCL 509, EDAD 509, and EDCS 509 are layered courses; students may only receive up to 12 credits. Formerly FCSG 509. 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 service learning as a pedagogy for applying academic knowledge to a community need.
 Identify community needs related to their academic content area.
 Identify an individualized academic service learning goal and develop a plan of action to address their goal.
 Identify, integrate and apply specific skills, knowledge, and technologies to their independent service [earning project
 Identify characteristics of at risk populations. Identify the relationships between academic service learning and civic engagement.
 Identify the relationships between academic service learning and career preparation.
 Demonstrate their ability to analyze their progress in implementing a service learning project.

FCL 514. 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:

Evaluate contemporary theories of grief and loss using developmental and cultural lenses.
 Assess grief responses, including complicated mourning and risk for pathological responses.
 Design a loss and grief intervention for a client of a specific developmental age and cultural background.
 Analyze personal assumptions, biases, attitudes, and reactions to loss and grief, and how they might influence interactions with grieving children and adults.
 Synthesize recommendations for grief interventions from current research literature.
 Prepare presentations about the grief process across the lifespan for a variety of audiences.

FCL 515. 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. FCL 415 and FCL 515 are layered courses; students may not receive credit for both. Course will be offered every year (Winter).
 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.
 Justify the use of play in intervention with children and adults.
 Assess family dynamics using play therapy techniques.

FCL 516. Child Life I: Child Life Scope of Practice (4). Introduction to the child life profession taught by a Certified Child Life Specialist. Content includes the history and scope of practice of child life, ethical issues, multi-cultural perspectives, and therapeutic intervention with medically fragile children. FCL 416 and FCL 516 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 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.
 Summarize ethical issues in child life and evaluate guidelines for practice when faced with ethical dilemmas.
 Generate considerations for work with diverse, multicultural clients.
 Design expressive interventions specific to work with medically fragile children.
 Argue for the importance of child life services in children's hospitals.
 Synthesize current research in the child life field.

FCL 517. 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. FCL 417 and FCL 517 are layered 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:
 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.
 Assemble resources for families for common childhood diseases (graduate level).
 Evaluate efficacy of existing interventions for common childhood diseases (graduate level).

FCL 518. Child Life II: Impact of Child Hospitalization (4).

Advanced understanding of the child life profession including current research, communication and therapeutic relationships in a hospital context, program administration and supervision, and the impact of hospitalization on children and families. FCL 418 and FCL 518 are layered 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:
Summarize research about the impact of hospitalization on children and their families.

Diagnose childhood diseases and disorders and summarize the impact they have on children and their families.

Synthesize current research related to child life and childhood diseases and summarize how it informs child life practice.

Design interventions for children and families to improve coping during child hospitalization.

Evaluate the efficacy of child life services.

FCL 519. 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 519; 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:

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.

Independently manage data, perform data analysis, and interpret results.

Prepare and effectively deliver a research presentation.

Evaluate social science research critically.

FCL 522. Survey of Research (1-5). The historical, philosophical, and legislative basis of program development and profession growth.

CTE 522 and FCL 522 are cross-listed courses; students may not receive credit for both. Formerly FCSG 522. May be repeated for credit. Formerly FS 522, Students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
Examine historical and philosophical foundations of program development

Describe the historical influences which have affected the development of agency programs

Analyze past and current legislation that supports agency programs

Examine the role and organization of the program in the agency or profession

Articulate the mission and integrative focus of the profession

Examine the national and state standards for a program

Analyze a major focus of program research during the past 5 years

FCL 526. Program Delivery Methods (1-5).

Course addresses theories of learning and human development in selecting program delivery strategies and resources. Includes models for management, assessment, evaluation, and public relations. CTE 526 and FCL 526 are cross-listed courses; students may not receive credit for both. Formerly FCSG 526. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Demonstrate the ability to integrate contemporary issues into program action plans

Identify strategies for integrating leadership development into the program

Analyze assessment and evaluation strategies appropriate for program

Identify strategies for integrating program content with content from other programs

Apply the management process to department and field settings

Analyze considerations related to long range planning

Analyze a variety of program delivery models

Identify program delivery strategies appropriate for diverse populations

FCL 532. Family Interaction (4).

Analysis of relevant literature associated with establishing and maintaining interpersonal and family relationships. Formerly FS 532, students may not receive credit for both. Prerequisite: 8 credits of upper-division coursework in family studies or the behavioral sciences.

Upon successful completion of this course, the student will be able to:
Analyze processes in relationships and the results of their function or dysfunction.

Apply the theoretical orientations that are used in understanding relationship processes.

Articulate the methods and limitations of research on relationship processes.

Become proficient at reading and critiquing empirical literature in family science.

Summarize a body of literature on one area of family process research.

FCL 533. Family Life Education (4).

The broad objective, 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 533, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:

Identify a major Family Life Education issue (marriage, parenting, etc.), and compare and contrast at least three existing FLE curricula that address that issue.

Demonstrate effective teaching techniques (organized and appropriate content, preparedness, speaks clearly, posture and eye contact, enthusiasm, comprehension of material, and appropriate response to questions) when presenting FLE to a community audience.

Identify themes in the family needs of the CWU and Ellensburg community, design programming, and identify funding sources.

FCL 534. Therapeutic Applications of Child Development (4).

Application of child development to work with children and families across many contexts, including in medical settings as a Child Life Specialist. Developmental and systemic perspectives in assessing and intervening with issues in childhood. Course will be offered every year (Winter). Prerequisite: admission to the Family and Child Life Graduate Program.

Upon successful completion of this course, the student will be able to: Assess child development issues as they relate to providing clinical services to children.

Summarize the role of traumatic experiences and attachment relationships in brain development and functioning, and generate implications for therapeutic work. Synthesize empirically-supported assessment and intervention guidelines for specific child issues, and demonstrate ability to use assessment and intervention skills. Interpret International Classification of Disease (ICD) and Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnoses specific to children.

Evaluate the process and outcome research literature in working with children and adolescents.

FCL 539. 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: poverty simulation and meeting with state policymakers. Formerly FS 539, FCL 439 and FCL 539 are layered courses; students may not receive credit for both. Course will be offered every year (Winter).

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. Evaluate public policy proposals in terms of their impact on families.

Analyze the state of local, state, and federal policy on family formation and dissolution.

FCL 542. Conflict Management (3). Introduction to conflict management. Topics include using power, analyzing personality traits, assessing conflict, negotiating skills, mediating skills, and how to build partnerships and long-term positive relationships in the work place and in one's personal life. Formerly FS 542, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Identify the basic nature of conflict, including how power, personality traits, and individual differences, such as personal habits, attitudes, and beliefs, impact one's individual conflict style.

Identify individual and joint decision making processes.

Demonstrate the ability to devise individual and group strategies that minimize the destructive consequences of conflict.

Demonstrate the ability to identify and negotiate solutions in conflict situations that will be satisfactory to all involved parties.

FCL 544. 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 544 are equivalent courses; students may not receive credit for both. Formerly FS 544, 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 non-normative 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.

Evaluate the relative quality of research design, measurement, sampling and causal inference in published empirical literature on Family Stress and Crisis.

Develop the ability to use current empirical literature to pose pertinent research questions and hypotheses.

FCL 545. 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 may not receive credit for both.

Formerly FS 545, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: admission to the family studies graduate program or permission of instructor.

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.

Graduate Level: Evaluate peer-reviewed sources related to aging.

Graduate Level: Critically analyze one issue related to intervention with older adults and their families.

FCL 547. Families and Poverty (4). This course explores how families experience poverty, including its consequences on family formation, relationships, and well-being. It also critically examines policies designed to reduce family poverty and their impacts on society.

Upon successful completion of this course, the student will be able to:

Gain the ability to explain and examine the way family poverty is measured as well as the

demographic characteristics of poor families.

Critically examine theoretical explanations of family poverty, in particular those that link poverty to family structure.

Identify and examine the lived experiences of poor families in a variety of contexts.

Identify and articulate the ways poverty affects child and family well-being in terms of relationships, parenting, and developmental outcomes.

Critically reflect upon their own views of poverty and low-income families.

Evaluate the relative quality of research design, measurement, sampling and causal inference in published empirical literature on families in poverty.

Define and evaluate the policies and programs that intend to reduce poverty, particularly those that attempt to do so by regulating the reproductive and family life of the poor.

FCL 580. Administration (1-5).

The study of the administration and directorship of the laws, trends, issues and agency or program standards. CTE 580 and FCL 580 are cross-listed courses; students may not receive credit for both. Formerly FCSG 580. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Identify the roles and responsibilities of an administrator
Identify processes for developing, implementing, and articulating programs

Identify processes for assessing programs

Identify reporting processes and requirements for programs

FCL 581. Program Resource

Management (1-5). Grant writing and the study of the local, state, and federal financing (both revenue and expenditure). CTE 581 and FCL 581 are cross-listed courses; students may not receive credit for both. Formerly FCSG 581. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Identify the fiscal responsibilities of a program administrator

Identify revenue sources for programs

Identify allowable program expenditures

Identify processes for budget development, management, and reporting

Identify strategies to obtain additional program resources in order to allocate and efficiently utilize human, fiscal, and technological resources

Identify grant funding sources and demonstrate grant proposal development skills

FCL 582. Curriculum

Development (1-5). Use program standards to determine and develop program scope and content. CTE 582 and FCL 582 are cross-listed courses, students may not receive credit for both. Formerly FCSG 582. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Identify professional roles and responsibilities for curriculum development

Identify the critical contextual factors impacting curriculum

Assess the social, emotional and intellectual impact of curriculum

Identify the process for integrating conceptual frameworks with curriculum development

Develop curriculum to meet the needs of diverse populations

Identify the purpose and role of advisory committees in curriculum development

Identify the purpose and role leadership development in the curriculum.

Identify strategies for evaluating curriculum

FCL 583. Partnerships and

Advisory Committees (1-5).

Examination of how education systems create and use industry partnerships, and advisory committees to enhance education programs. CTE 583 and FCL 583 are cross-listed courses; students may not receive credit for both. Formerly FCSG 583. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Identify the pros and cons for working with advisory committees and industry partners for developing and maintaining programs

Identify administrator responsibilities for developing and utilizing agency, community, and industry partnerships

Identify strategies for identifying and including the community's diverse cultural, social, intellectual and industry resources on advisory committees

Identify the use of committee handbooks, meeting models, mission statements, and memorandums of agreement for working with advisory committees or industry partners

Identify processes for assessing and reporting partner action and accomplishments

FCL 584. Supervision and

Evaluation (1-5). The development of constructive guidance, observation and assessment skills. CTE 584 and FCL 584 are cross-listed courses; students may not receive credit for both. Formerly FCSG 584. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Identify staff responsibilities for supervision and evaluation tasks

Develop constructive guidance, observation and assessment skills

Identify assessment and accountability systems for monitoring progress

Identify strategies for developing instructional and leadership capacity

Identify use of effective and appropriate technologies for conducting agency supervision and evaluation work

Identify effective time management practices for completing supervision and evaluation responsibilities

FCL 590. 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. Formerly FS and FCSG 590. May be repeated for credit. Grade will either be S or U.

FCL 592. Family and Child Life

Practicum (1-6). Supervised practicum experience in family and child life. FCL 492 and FCL 592 are layered courses; a student may not receive credit for both. Formerly

FCSG 592, students may not receive credit for both. May be repeated up to 15 credits. Course will be offered every year (Fall, Winter, Spring and Summer). Prerequisite: student must be at graduate standing to enroll in this course.

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.

Synthesize research literature related to their area of practicum study.

Critically analyze practices at their practicum agency.

FCL 595. Graduate Research (1-10). Development and investigation of an approved laboratory or field research problem. Formerly FCSG 592, students may not receive credit for both. By permission. Maximum of 6 credits may be included in course of study for the master's degree. Course will be offered every year (Fall, Winter, Spring, Summer).

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 research presentation.

FCL 596. Individual Study (1-6). May be repeated for credit.

FCL 598. Special Topics (1-6). May be repeated for credit.

FCL 599. Seminar (1-5). May be repeated for credit.

FCL 696. Individual Study (1-6). May be repeated if subject is different.

FCL 698. Special Topics (1-6). May be repeated if subject is different.

FCL 699. Seminar (1-6). May be repeated if subject is different.

FCL 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

FIN 570. Advanced Financial Management (5). An in-depth and rigorous review of the theory and empirical evidence related to the investment and financing policies of the firm, including, financial evaluations, capital management, financial decisions, and risk analysis through lectures and cases.

Prerequisite: admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to: Use financial models to determine the intrinsic value of a firm and its securities, including bonds and common stock.

Understand the principles of working capital management including the management of cash, receivables, inventory, and short-term financing.

Understand capital structure theory and the affects of business risk, tax, growth opportunities, and other factors on the cost of capital and the optimal capital structure.

Use the techniques of capital budgeting analysis and understand their differences and the conflicts among them.

Interpret and evaluate different financial risks—including market risk, interest rate risk, liquidity risk and credit risk—and their impacts on securities and firm value. The students will understand how to manage these risks.

Develop critical thinking skills for decision making in the areas described above and be able to identify problems, explain issues,

evaluate assumptions, provide a comprehensive analysis, and make recommendations.

Develop and improve their communication skills.

FIN 596. Individual Study (1-6). May be repeated if subject is different.

FIN 598. Special Topics (1-6). May be repeated if subject is different.

FIN 599. Seminar (1-5). May be repeated if subject is different.

FIN 696. Individual Study (1-6). May be repeated if subject is different.

FIN 698. Special Topics (1-6). May be repeated if subject is different.

FIN 699. Seminar (1-6). May be repeated if subject is different.

GEOG 527. 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, ANTH 527, GEOG 427, GEOG 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. 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.

Recover, analyze, interpret, and report paleoenvironmental data.

GEOG 583. 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. Course will be offered every year (Winter).

Prerequisite: GEOG 107 or instructor permission.

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.

Explore the varied literature on snow.

GEOG 596. Individual Study (1-6). May be repeated for credit.

GEOG 598. Special Topics (1-6). May be repeated if subject is different.

GEOG 599. Seminar (1-5). May be repeated for credit.

GEOG 696. Individual Study (1-6). May be repeated if subject is different.

GEOG 698. Special Topics (1-6). May be repeated if subject is different.

GEOG 699. Seminar (1-6). May be repeated if subject is different.

GEOL 501. Current Topics in Geology (3). Course will introduce beginning graduate students to current research topics in a variety of subdisciplines in geology through readings, discussions, and student presentations.

GEOL 502. Regional Field Geology of the Pacific Northwest (2). Field studies in the Pacific Northwestern United States and Canada.

GEOL 503. Introductory Graduate Research Methods (3). Discussion and exploration of research methods in geology, including library and Internet resources, thesis project selection and design, and literature review. Three hours per week. Prerequisites: GEOL 501 and GEOL 502.

GEOL 504. Graduate Seminar Series (1). Research seminar series comprising the Geological Sciences

weekly seminar series. Includes discussion with speaker following seminar. May be repeated for a total of 12 credits. Grade will either be S or U.

Upon successful completion of this course, the student will be able to: Understand the manner in which research in a variety of fields is conducted and how results are interpreted within known contextual information.

Discuss with the seminar speaker and the Geological Sciences faculty any questions or comments they have with the research results presented in the seminar.

GEOL 515. 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. Three hours of lecture and four hours of laboratory per week. GEOL 415 and GEOL 515 are layered courses; students may not receive credit for both. Prerequisites: Either GEOL 101 or 102, and 101LAB.

GEOL 523. 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: GEOL 501 and GEOL 502.

Upon successful completion of this course, the student will be able to: Describe the formation and structure of various components of the cryosphere.

Describe techniques used to monitor variations in various components of the cryosphere.

Assess which components of the cryosphere are most vulnerable to a warming climate, and the timescales over which the cryospheric component is vulnerable to change (weeks - months - centuries).

Critically assess journal articles from the cryosphere primary literature.

Evaluate how projected increases in temperature will affect a component of the cryosphere, and predict the societal and economic impacts of this change.

GEOL 525. 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, 181LAB, CHEM 182, and 182LAB.

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 reservoir and fluxes between major reservoirs. They can differentiate between long-timescale processes (such as silicate weathering) and short-timescale processes (such as anthropogenic increase in atmospheric CO₂).

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. Explain the role of clays in ion exchange.

Understand the role of the oceans in geochemical cycles and as buffers for our environment. They know the controls on ocean chemistry.

Be 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.

Gormulate an environmental geochemistry research project, and express it in a concise proposal.

GEOL 530. 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. GEOG 430, 530, and GEOL 430 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, history and trends in remote sensing, energy interactions with the atmosphere and earth surface features, sensor systems, image processing and analysis, including: image rectification and enhancement, contrast manipulation, supervised and unsupervised classification, principal component analysis, vegetation indices; real-world application examples, radar imagery, and hyperspectral imagery. Use computer-based skills using modern image processing software. Combine knowledge learned through lecture with the computer-based software skills.

GEOL 532. 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: GEOL 101 or GEOL 102, 101LAB, GEOL 200, and GEOL 210.

GEOL 534. 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. Prerequisites: GEOL 101, 101LAB, GEOL 370, and either GEOL 200 or GEOL 210.

Upon successful completion of this course, the student will be able to: Learn the geology behind the origin and occurrence of oil and gas and how to apply geology in the exploration and development of oil and gas resources. Produce and present exploration and development prospects based on geologic and economic data in a simulated competitive (business) environment. Gain an understanding of the history, present state and possible future of the global demand for petroleum. Present and debate aspects of the roll of conventional and non-conventional hydrocarbon energy resources in meeting escalating global energy demand.

GEOL 541. Climate Variability and Climate Change (5). Examine past, present, and future changes in climate, and the factors that contribute to climate change of various timescales. GEOL 441 and GEOL 541 are layered 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 CO₂ to the atmosphere, land use change etc.). Consider how projected climate change will impact a specific location on Earth.

GEOL 545. 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: GEOL 101 or GEOL 102, 101LAB, and MATH 154.

GEOL 553. Seismology (5). Elasticity theory, the wave equation, ray theory, diffraction, waveform modeling, travel time inversion. Data analysis. Three hours lecture and four hours of scientific computing lab per week. Offered alternate years. GEOL 453 and GEOL 553 are layered courses; students may not receive credit for both. Prerequisite: MATH 173. Upon successful completion of this course, the student will be able to: Demonstrate the use of seismic analysis software for data interpretation and modeling. Illustrate the internal seismic structure of the Earth. Calculate epicenters, magnitudes and focal mechanisms using seismic data. Evaluate instrument response and its effect on seismic signals. Assess the quality of an instrument installation site and the resulting data. Integrate seismic and geologic data to assess regional tectonics.

GEOL 556. Geodynamics (5). Study of plate tectonics and mountain building processes that shape our Earth. Lab includes introduction to Matlab software for analysis and visualization. Required field trip. GEOL 456 and GEOL 556 are equivalent courses; student may not receive credit for both. Prerequisite: GEOL 101. Co-requisite: 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. Use MATLAB software to apply numerical techniques to their thesis research. Orally present a summary of numerical techniques applicable to their thesis research.

GEOL 565. Tectonic Evolution of Orogenic Belts (2). Overview of the tectonic, structural, stratigraphic,

and geophysical evolution of orogenic belts. Two hours of discussion and student presentation per week. May be repeated once for credit under a different title.

Upon successful completion of this course, the student will be able to: Classify historical developments in geology using the language of the philosophy of science.

Outline important historical debates over theories in the geological sciences.

Analyze the original rationale for presently outdated geologic concepts.

Defend the outdated thinking about fundamental geologic phenomena.

GEOL 570. Fluvial

Geomorphology (4). Advanced course covering hydrologic and geomorphic processes in rivers. Exploration of current geomorphic research, practical experience in field techniques, and geomorphic models. Prerequisite: GEOL 386.

GEOL 574. Quaternary Geology (4). Study of geological processes affecting Earth's most recent history. Course emphasizes global quaternary environmental change, glacial epochs, paleoclimatic methods, and dating techniques. GEOL 474 and 574 are layered courses; students may not receive credit for both.

Prerequisite: GEOL 386.

GEOL 575. 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. Required field trips. GEOL 475 and GEOL 575 are layered courses; students may not receive credit for both. Offered in alternate years. By permission. Upon successful completion of this course, the student will be able to: Gain experience critically evaluating data and interpretations presented in the literature, in order to gain in-depth knowledge of subject areas relevant to their thesis work.

GEOL 576. 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: graduate standing.

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.

Evaluate sedimentologic data to determine unanswered questions or future directions of sedimentological research.

Develop scientific writing and literary research skills.

Identify sedimentary rock features/characteristics that allow one to determine depositional environments and settings.

Reconstruct lateral relationships of depositional environments from facies associations.

GEOL 577. 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: graduate standing.

Upon successful completion of this course, the student will be able to: Analyze methodologies for studying paleotsunamis and evaluate specific examples.

Assess the current state of paleotsunami research in a region of interest and propose future research avenues.

Find and evaluate primary literature. Discuss how a modern tsunami survey is conducted, diagnose what parameters of tsunami geology are important to measure, and appraise how recent events affected scientific methods and goals.

Describe how tsunami models operate, compute a simulation using standard methodologies, and synthesize results.

Demonstrate an understanding the basic physics of tsunami generation and propagation.

Evaluate how new scientific ideas evolve from being controversial to accepted or rejected.

GEOL 578. 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. Required field trips.

GEOL 478 and GEOL 578 are layered courses; students may not receive credit for both. Offered in alternate years. By permission.

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, modern 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.

Gain experience collecting volcanological data in order to become familiar with data collection and assessment methods and evaluation of uncertainties.

GEOL 583. 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 and required laboratory work and field trips. GEOL 483 and GEOL 583 are layered courses; students may not receive credit for both. Offered in alternate years.

Prerequisites: CHEM 182, 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 584. Geochronology (5).

Principles, analytical methods, and interpretation of several of the most widely applied geochronologic methods. Computer-based data analysis of problems in igneous and metamorphic petrology, structural geology, sedimentary geology, geomorphology, paleoseismology, and planetary science. GEOL 484 and 584 are layered courses; students may not receive credit for both. Prerequisites: MATH 172 and GEOL 346.

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.

Evaluate, interpret, synthesize, and present geochronology data relevant to their thesis research projects.

GEOL 595. Graduate Research (1-10). May be repeated for credit. Grade will either be S or U.

GEOL 596. Individual Study (1-5). May be repeated for credit.

GEOL 598. Special Topics (1-6). May be repeated for credit.

GEOL 599. Seminar (1-5). May be repeated for credit.

GEOL 696. Individual Study (1-6). May be repeated if subject is different.

GEOL 698. Special Topics (1-6). May be repeated if subject is different.

GEOL 699. Seminar (1-6). May be repeated if subject is different.

GEOL 700. Master's Thesis, Project Study, and/or

Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

HED 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

HED 590. Cooperative Education (1-6). An individualized contracted field experience with business, industry, government, or social service agencies. The 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.

HED 591. Workshop (1-6). May be repeated for credit.

HED 596. Individual Study (1-6). By permission. May be repeated for credit.

HED 598. Special Topics (1-6). May be repeated for credit.

HED 599. Seminar (1-5). May be repeated for credit.

HED 696. Individual Study (1-6). May be repeated if subject is different.

HED 698. Special Topics (1-6). May be repeated if subject is different.

HED 699. Seminar (1-6). May be repeated if subject is different.

HIST 511. Historiography (5).

HIST 512. History Graduate Readings Seminar (5). May be repeated for credit.

Upon successful completion of this course, the student will be able to: Identify the thesis, sources, logic, and structure of scholarly works.

Compare competing historical narratives by contrasting different historians' choice of questions and sources.

Identify key questions and themes within diverse historiographical traditions.

Compile and annotate a bibliography of key scholarly works on a specific topic.

Explain the difference between historical "facts" and interpretation.

Adapt historiographical tools for use in research and writing.

HIST 515. History Graduate Research Seminar (5). May be repeated for credit.

Upon successful completion of this course, the student will be able to: Interpret data and reconstruct patterns of historical succession and duration in which historical developments unfolded.

Draw upon historical evidence to correct, clarify, illustrate or elaborate upon information presented in traditional historical narratives.

Obtain historical data from a variety of sources.

Formulate historical questions from encounters with primary sources.

Interrogate historical data by uncovering the social, political, and economic context in which it was created.

Provide thorough documentation for research.

Write analytical and narrative histories from primary and secondary sources.

HIST 522. 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 well-supported 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. Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining early British history.

HIST 523. 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 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 well-supported 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.

Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining the Irish revolution.

HIST 524. 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 clearly-written 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 526. 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 modern French 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 well-supported 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.

Identify different patterns of interpretation and different methodologies used in assessing or explaining modern French history, including Marxism, cultural history, and social history.

Analyze how interpretations of the French Revolution have shifted significantly over the course of the 20th century.

HIST 527. Modern Britain and the Empire since 1763 (5). History of Britain and the Empire since the Seven Years' War. Topics include growth of the 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 well-supported 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. Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining modern British and Imperial history. Analyze the relationship between Britain and its Empire in terms of new methodologies (i.e. New Imperial History).

HIST 528. 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 well-supported 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. Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining early modern British and Imperial history. Analyze the relationship between Britain and its Empire In terms of

new methodologies (i.e. New Imperial History).

HIST 529. 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; a student 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 well-supported 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

Assess the role that the New Imperial History and the greater study of empire in general has played in the production of Irish history

Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining the role of empire in Irish history

HIST 534. American Indian History to 1795 (5). Discussion and lecture course on Native American history from 1492 to the founding of the American Republic in 1789, and an introduction to the discipline and practice of ethnohistory, which combines traditional historical analysis with ethnographic concepts

and research methodologies. HIST 434 and 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.

Demonstrate understanding of the diversity of Indian/First Nation cultures and the variety of Native American historical experiences. Identify, compare and contrast the myriad strategies for cultural survival adopted by Native peoples in the face of change resulting from contact with (and conquest by) Europeans.

Interpret Native Americans as historical actors rather than merely victims of Euro-American conquest. Incorporate ethno historic concepts and methodologies in class discussions and written work. Map historiography of Indian history and practice integrating the Native experience into an historical narrative.

HIST 538. 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 540. The American Revolution (5). Causes and consequences of the American Revolution, 1688-1789. HIST 440 and HIST 540 are layered courses; students may not 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 542. 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.

HIST 543. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 544. 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 the North and South during the Civil War, and the aftermath of the war. HIST 444 and HIST 544 are layered course; 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 550. Exploring U.S.

Cultural History (5). Thematic approach to 19th-century cultural transformations in the U.S. Selected topics; mesmerism, utopias, true womanhood, women's rights, slave spirituals, confidence men, 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 551. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 552. 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.
Compare opposing interpretations and opinions about this area.
Research, organize, and present an academic lecture on the history of this area.
Compare opposing primary documents on the history of this area.

HIST 553. 20th-century U.S. 1945 to the Present (Put on reserve 9/16/17) (5). Cold War, sedentary 50s, 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.
Compare opposing interpretations and opinions about this area.
Research, organize, and present an academic lecture on the history of this area.
Compare opposing primary documents on the history of this area.

HIST 554. 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 560. Religion in Latin

America (5). Analyzes the relationship between individuals, religions and 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:
Explain relationships between individuals, the state, and religion in Latin America.

Defend a thesis statement (an historical assertion argued with facts and logic).

Use continuity and change over time as devices of historical development.

Synthesize learning with basic ideas, beliefs, and concepts of various religious groups in Latin America.

Incorporate research into classroom presentation.

HIST 561. 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

Assess the role that the study of health, healing and medicine has played in the production of African history

Identify different patterns of interpretation and different methodologies used by scholars in assessing or explaining the role of health and healing in African history

HIST 562. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 563. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 564. 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: Identify the key events of Latin America's twentieth-century revolutions, and analyze their principal causes and consequences. Compare and contrast Latin America's revolutionary movements, and analyze their chief similarities and differences.

Analyze and value the histories of disparate peoples and places.

Recognize the historians' craft of empathy and interpret primary documents from this perspective.

Compare and contrast opposing historical interpretations, and come to your own conclusions through a careful consideration of all relevant materials.

Organize, present, and communicate your own opinions in a thoughtful, coherent fashion.

HIST 565. 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.

Write concise and coherent historical essays.

HIST 572. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 573. 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.

Compare opposing interpretations and opinions about this area.

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 574. 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.

Compare opposing interpretations and opinions about this area

Research, organize, and present an academic lecture on the history of this area.

Compare opposing primary documents on the history of this area.

HIST 576. 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.)

HIST 578. Russian Far East (5). Russian Far East history from 16th-century Cossack exploration to 21st-century democracy. Topics include the imperial "urge to the sea," the Trans-Siberian Railway, the Soviet

gulag system, and Pacific Rim relations. AST 478, HIST 478, and HIST 578 are cross-listed courses; student may not receive credit for more than one. 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 Far Eastern history.

Isolate and analyze significant issues in Russian Far Eastern 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.

Conceptualize the rich diversity of human experience in other times and places.

HIST 583. 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 588. 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 590. 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. By permission. May be repeated for credit. Grade will either be S or U.

HIST 591. Workshop (1-6). HIST 491 and HIST 591 are layered courses; students may not receive credit for both. Grade will either be S or U.

HIST 595. Graduate Research (1-10). For students doing preliminary

or ongoing thesis/project research. May not be included in the course of study for the master's degree. 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: Interpret data and reconstruct patterns of historical succession and duration in which historical developments have unfolded. Draw upon historical evidence to correct, clarify, illustrate or elaborate upon information presented in traditional historical narratives.

Obtain historical data from a variety of sources.

Formulate historical questions from encounters with primary sources. Interrogate historical data by uncovering the social, political, and economic context in which it was created.

Provide thorough documentation for research.

Write analytical and narrative histories from primary and secondary sources.

Develop a prospectus in preparation for a master's thesis.

HIST 596. Individual Study (1-6). For students who wish to do directed readings and study in secondary literature on specific topics that are not offered as existing courses. By permission. May be repeated for credit.

HIST 598. Special Topics (1-6). May be repeated for credit.

HIST 599. Seminar (1-5). May be repeated for credit.

HIST 696. Individual Study (1-6). May be repeated if subject is different.

HIST 698. Special Topics (1-6). May be repeated if subject is different.

HIST 699. Seminar (1-6). May be repeated if subject is different.

HIST 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

HPE 510. Issues in Health and Physical Education (3).

Examination of current issues,

problems, and challenges affecting health and physical education professions.

Upon successful completion of this course, the student will be able to: Demonstrate general knowledge and understanding of different viewpoints of selected class issues. Demonstrate specialized knowledge of one assigned issue.

Demonstrate ability to prepare and deliver a presentation on a selected issue.

Demonstrate the ability to complete all written assignments and required information postings on Blackboard.

HPE 543. 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 544. 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 545. 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 546. Advanced Administration of Athletics (3).

Principles and practices of athletic administration: budgeting, resource control, personnel development, alumni relations. By permission.

Upon successful completion of this course, the student will be able to:

Identify communication and managerial skills important in athletic administration.

Identify ways in which to manage change, conflict and stress.

Identify motivation techniques.

Demonstrate advanced budgeting.

Identify different performance appraisals and rewards.

HPE 547. Healthy Living for Athletes, Coaches, and Administrators (3).

Provides insights and ameliorations for the effects of the stressful lifestyle of athletes, coaches, and athletic department administrators. Students will develop a handbook of information, stress identifier exercises, and lifestyle adjustment techniques. May be repeated up to six credits.

Upon successful completion of this course, the student will be able to:

List and explain sources of stress in the life of athletes, coaches, and administrative staff.

List and explain the unique stressors associated participation and employment in athletics.

Discuss typical stressors and common stress related symptoms associated with sports and athletics.

Explain and discuss university and community resources to aide universities employees cope with stress life styles.

Describe and discuss the organizational structure of a collegiate athletic department and related stressors.

List and discuss physical and emotional effects of an unbalanced life style.

HPE 557. Research Methods and Design in Health and Physical Education (4).

Introduction to the

process of planning and understanding research.

Upon successful completion of this course, the student will be able to: Demonstrate understanding of scientific and non- scientific problem solving methods.

Demonstrate knowledge of the key characteristics of different types of research approaches.

Demonstrate the ability to critique completed research.

Demonstrate ability to conceptualize, plan and present a research proposal.

HPE 560. Statistical Applications in Health and Physical Education (4).

Application of statistics to research in health and physical education. Analysis of data sets drawn from research in these disciplines. Formerly HHPR 556, students may not receive credit for both.

Upon successful completion of this course, the student will be able to:

List and explain the differences between descriptive and inferential statistics

List and demonstrate the function and purposes of the following concepts: Frequency Distributions, Histograms, Polygrams, Graphs

Explain the relationship between central tendency, variance, standard deviation, normal distributions

Define and explain hypothesis testing and it relationship with the principles and axioms of probability

Define correlation and explain it usefulness in defining relationships between observed phenomena

HPE 561. Tactical Applications to Movement Development and Sport (3).

This course examines how the tactical games approach can be applied at elementary and secondary levels in a variety of developmentally appropriate sports and activities. Prerequisite: accepted in HPE Masters Program (HAPEG).

Upon successful completion of this course, the student will be able to:

Identify and evaluate valid sources of information about health and physical education.

Identify research proven practices based on age and developmentally appropriate progressions.

Apply appropriate strategies, services, and resources to meet diverse learning needs.

Demonstrate a knowledge of the phases and stages of movement development.

Accurately conduct game performance analyses for net/wall games (GPAL).

Develop appropriate sequences to help students achieve proficiency of propulsive and receptive skills.

HPE 562. Pedagogical Design and Analysis in Physical Education

(3). The emphasis of the course is to identify, develop and implement a variety of instructional strategies in physical education and other activity settings. Additional emphasis will be placed on planning age appropriate instructional sessions. Prerequisites: accepted in HPE Masters Program and HPE 561.

Upon successful completion of this course, the student will be able to:

Identify and apply health/fitness content, disciplinary concepts, and tools of inquiry related to the development of a physically educated and health-literate person. Incorporate interdisciplinary learning experiences to integrate knowledge and skills from multiple subject areas.

Create and use appropriate instructional cues and prompts for basic motor skills, rhythms, physical activity, and fitness.

Demonstrate teaching methods specific to individual and group motivation and behavior to create a safe learning environment that encourages positive social interaction, active engagement in learning, and self-motivation. Demonstrate managerial and instructional routines which create smoothly functioning learning experiences.

Select, implement, and evaluate instructional strategies based on developmental levels, learning styles, and safety issues.

HPE 570. Legal Liability and Risk Management (3). Lecture and discussion course on general legal terminology, personal and tort law, and methods used to implement organizational risk management programs.

Upon successful completion of this course, the student will be able to:

Know and be able to correctly respond to the legal foundation of school law.

Discuss the legal concepts of negligence, torts and duty.

Analyze, and address event safety and security and apply knowledge of legal responsibilities and understand of risk.

Demonstrate knowledge of Constitutional Law, i.e. 1st, 4th, 5th, & 14th Amendments and their effect on litigation and risk management strategies.

Demonstrate knowledge of Title IX-Gender Equity and understand the legal and organizational effect it has on athletics programs. Identify common forms of sexual harassment and child abuse and explore strategies for addressing them.

HPE 572. Foundations of School Health Education (3). This course is designed to provide health and physical education (HPE) graduate students the knowledge and skills needed to teach comprehensive school health education with a major emphasis on nutrition, injury prevention/safety, alcohol, tobacco, drugs and sexuality education.

Upon successful completion of this course, the student will be able to: Explain the role 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 important of proper dispositions by being a positive role model when teach health in the K-12 setting.

Demonstrate a conceptual understanding of the ten comprehensive school health education content areas.

Deliver effective lessons and curriculum materials utilizing active learning teaching strategies related to the ten health content areas.

HPE 573. Pedagogical Content Knowledge in School Health Education

(3). This course is designed to provide health and physical education (HPE) graduate students the knowledge and pedagogical content knowledge and skills necessary to teach comprehensive school health

education in the K-12 setting.

Prerequisite: HPE 571.

Upon successful completion of this course, the student will be able to:

Implement trust builders, energizers, and games into scheduled teaching experiences. Demonstrate the ability to write formal lesson and unit plans for school health education utilizing the Health Education Curriculum Analysis Tool (HECAT).

Design, create, and deliver a 3-lesson unit on a selected health topic supported by the National Health Education Standards (NHES) and the Washington State Essential Learning Requirements (EALRs).

Create and implement values education techniques into a 3-lesson health unit tailored to K-12 students. Demonstrate knowledge of research-based instructional strategies and models such as: brain-based learning, constructivism, multiple intelligences theory, cooperative learning models, memory models, concept development, and direct instruction.

Create and implement formative and summative assessment strategies to k-12 students.

HPE 574. Public Relations and Marketing in Athletics (3). This course offers students a complete view of the expansive field of sport, providing an understanding of the foundations of sport marketing, public relations, and how to enhance the sport experience. Department permission. Prerequisite: open to students in the graduate health and physical education programs.

Upon successful completion of this course, the student will be able to: Demonstrate usage of marketing terminology and theory related to the sport industry.

Explain sport marketing theory and how it can be used in the sport industry to meet the wants and needs of the sport consumer.

Analyze case studies in sport to recognize sound marketing decisions and to articulate sport marketing solutions for various constituents.

Evaluate the sport marketing strategies of professionals as well as fellow students through critiquing

the professionals' work and students' assignments.

Synthesize course material into a marketing plan for a sport organization.

HPE 577. Physical Education Curriculum Design (3). Design and creation of a physical education curriculum that meets state and national standards.

Upon successful completion of this course, the student will be able to: Knowledge of WA State educational reform and Essential Academic Learning Requirements (EALRs) in health and fitness (or knowledge of other State requirements if you are from out-of-state).

Knowledge of national PE standards.

Understanding of developmentally appropriate PE teaching practices.

Follow the ABC (achievement based curriculum) planning process, and create a public school PE curriculum following the ABC planning process.

Demonstrate ability to create an attractive and functioning physical education web site.

Ability to participate fully in online class discussions and information posting on Blackboard.

HPE 578. Physical Education Program Promotion (3).

Understanding the various strategies currently being used by physical education teachers to promote their programs and developing a school-based promotional plan.

Upon successful completion of this course, the student will be able to:

Have an understanding of the various strategies currently being used by physical education teachers to promote their programs.

Development of a school physical education newsletter.

Development of a school physical education web site.

Development of a year long plan for extracurricular opportunities for physical education and physical activity.

Development of a comprehensive plan for one school-wide special promotional event.

Development of a physical education theme-based academic year calendar.

Development of a physical education bulletin board.

HPE 579. Supervision of Student Teachers in Physical Education (3).

Introduction to the history of supervision, a breakdown of the process, and opportunities to practice supervision conferencing.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of appropriate instruction.

Understand the difference between the Devil's Triad and Clinical Supervision.

Know the framework in which debriefing sessions should be held.

Apply systematically collected data to enhance teaching skills.

HPE 580. Physical Education Grant Writing and Fundraising (3).

This course is designed to assist students in obtaining the skills and knowledge necessary for writing funding proposals in physical education and related fields.

Upon successful completion of this course, the student will be able to: Demonstrate the skills required to successfully write funding proposals.

Identify resource providers for health and physical education grants.

Cost/benefit analysis of a grant proposal.

Ability to formulate and present a grant proposal.

HPE 581. Technological Applications in Health and Physical Education (3).

Introduction to technological applications in HHPN and strategies for delivery of CWU online MS degree program in HHPN.

Prerequisite: admission to HHPN graduate program.

HPE 583. Leadership and Decision Making in Interscholastic Sports (3).

Students will examine the characteristics and skills of effective leaders and investigate the various roles and responsibilities of the athletic director. Students will define and apply knowledge of management, supervision, and decision-making skills and strategies used by effective leaders in athletics.

Prerequisite: admission to the master of science in PESPH.

Upon successful completion of this course, the student will be able to: Review and discuss theories of effective leadership.

Examine and apply leadership skills.

Recognize and understand effective management strategies in athletic administration.

Investigate the efficacy of decision-making and negotiation by successful athletic directors in athletic programs.

Examine self-assessment activities and identify the elements of the athletic director's responsibilities that significantly benefit from assessment.

Define management and understand the nature of management and the basic management process.

Recognize and understand the social and ethical responsibilities of managers in athletic programs.

Identify and understand the necessary steps of the supervision process.

Recognize the importance of motivation on staff performance and examine various motivational theories.

Define decision-making and examine the approaches and steps for making decisions and study the group decision making process.

HPE 584. Mentoring of Coaches and Athletes (3).

The mentoring course provides students with the knowledge, skills, and personal behaviors, and relationships that affect the athletic director's ability to mentor coaches and student-athletes. Students will review the concepts of leadership and apply them to mentoring theory.

Mentoring theory and leadership skills will be applied to mentoring activities within and outside of the class in efforts to create a mentoring program. Prerequisite: open to students in the physical education, school, and public health program.

Upon successful completion of this course, the student will be able to: Review, discuss, and compare transactional and transformational leadership styles and the role of each in mentoring coaches and athletes.

Examine the concepts of moral and servant leadership.

Recognize and understand the role of character and value education in athletics.

Review the term "mentor" and place it in the context of the athletic program.

Examine the key elements of successful mentoring.

Examine mentoring theory and its application in athletic programs.

Recognize and understand the responsibilities of the mentor and mentee that will improve "mentoring relationships" in athletic programs.

Examine the process for implementing a "mentoring program" within the athletic program.

Recognize the phases of implementing a "mentoring program."

Review examples of successful mentoring programs and relationships in athletic programs.

HPE 585. Event, Facilities, and Scheduling Management of Sport (3). Provides students with the knowledge and understanding of the protocols and process of scheduling and managing events and facilities. Students will practice scheduling and management processes. Organizational, communication, and technological skills will be emphasized and refined.

Prerequisite: admitted to the Athletic Administration Program.

Upon successful completion of this course, the student will be able to:

Review and examine the importance of communication, organizational, and technological skills in events and facilities management.

Recognize and understand annual and immediate roles and responsibilities of the AD related to managing sport facilities.

Review and understand the AD's role as a manager of sport equipment for facilities.

Preview and examine the team and seasons' scheduling processes.

Preview and examine the officials, event- workers, security, and medical scheduling processes for each season.

Examine the responsibilities and processes inherent in scheduling transportation for program teams.

Recognize and understand the protocols and processes inherent in

preparing for each sport season's events.

Recognize and understand the protocols and processes inherent in preparing for each sporting event.

Review and understand the AD's role as a supervisor for and at events.

HPE 586. Athletic Budgeting, Finance, and Fundraising (3). Budgeting and fund raising course provides students with the exploration and applications of budgeting and fundraising philosophies, considerations, strategies, and timelines for athletic programs. Students will examine various development and planning processes for athletic budgeting and fundraising, including the consideration of equity principles.

Prerequisite: open to students in the physical education, school, and public health program.

Upon successful completion of this course, the student will be able to:

Review and discuss philosophies and strategies of budgeting in athletics.

Examine and apply budgeting time lines and models.

Recognize and understand the role of "equity" in athletic budgeting.

Examine the role of documentation in the formulation of the athletic budget.

Examine the "budget request" and how to formulate a request that matches athletic program status.

Review the use of MS EXCEL as a budgeting tool.

Recognize and understand the philosophy of fund raising and marketing in athletic programs.

Examine marketing and fundraising strategies and understand their role in athletic programs.

Recognize the various constituencies, such as booster clubs, involved in raising funds and marketing for athletic programs.

Review examples of successful marketing and fundraising programs in athletics.

HPE 587. Governing Organizations in Sports and Athletics (2). This course provides students with the knowledge and understanding of the agencies that regulate, support, and review sport and athletic programs, such as the NCAA, NFHS, WIAA, and other

athletic-related associations.

Prerequisite: Admission to the MS in PESPH.

Upon successful completion of this course, the student will be able to:

Examine the histories of various governing agencies in sport.

Recognize and understand responsibilities of specific National and State sports and athletic organizations.

Recognize the structure of specific National and State sports and athletic organizations.

Study and understand the basic governing responsibilities of the NCAA.

Examine and discuss various issues in athletic programs that the NCAA must address.

Study and understand the basic governing responsibilities of the WIAA.

Examine and discuss various issues in athletic programs that the WIAA must address.

Recognize and understand the tasks of specific National and State coach and athletic director associations.

Study and understand the role specific athletic director and coach associations have in the development and review of coaches and programs.

HPE 595. Graduate Research (1-6). Development and investigation of an approved laboratory or field research problem. May be repeated. Maximum of 6 credits may be included in course of study for the master's degree. May be repeated for credit. Prerequisite: permission of major advisor.

HPE 596. Individual Study (1-6). May be repeated if subject is different.

HPE 598. Special Topics (1-5).

HPE 599. Seminar (1-5). May be repeated for credit.

HPE 696. Individual Study (1-6). May be repeated if subject is different.

HPE 698. Special Topics (1-6). May be repeated if subject is different.

HPE 699. Seminar (1-6). May be repeated if subject is different.

HPE 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, and/or

examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

IHP 551. Metabolism and Skeletal Muscle (5).

Application of physiological principles to regulation, control, and adaptation of skeletal muscle and cellular metabolic processes to acute and chronic internal and external stimuli including physical activity, metabolic and musculoskeletal diseases, obesity, nutritional strategies, and aging. Formerly EXSC 551, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor. Upon successful completion of this course, the student will be able to: Apply knowledge of metabolism, skeletal muscle structure and function, and regulatory processes to stimuli such as disease, aging, physical activity, environmental factors, pharmacological agents, and obesity.

Analyze and apply scientific literature and effectively communicate knowledge to their immediate peers.

Synthesize research in the field of integrative physiology specific to metabolism and skeletal muscle.

IHP 552. Cardiopulmonary Physiology (5).

Responses and adaptations of cardiovascular and pulmonary systems and supporting organ systems (neural, endocrine) to acute and chronic internal and external stimuli. Stimuli include physical activity, cardiopulmonary diseases, obesity, and aging. Formerly EXSC 552, students may not receive credit for both.

Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

Upon successful completion of this course, the student will be able to: Apply knowledge of pulmonary and cardiovascular anatomy and function to assess the impact of disease, aging, physical activity, pharmacological agents and obesity on body function.

Analyze and apply scientific literature and effectively communicate knowledge to their immediate peers.

Synthesize research in the field of integrative physiology specific to pulmonary and cardiovascular function.

IHP 553. Laboratory Techniques in Stress Physiology (5).

Techniques for the assessment of human physiological characteristics during rest and exercise stress. Two hours lecture and two hours lab per week. Formerly EXSC 553, students may not receive credit for both.

Prerequisites: IHP 551 and IHP 552.

Upon successful completion of this course, the student will be able to:

Know the theories that underlie morphological and physiological assessment techniques employed in exercise physiology.

Know what statistical tests to apply to data collected in a laboratory setting.

Know what physiological principles govern human functioning during rest and exercise.

Competently perform morphological and physiological assessments of human structure and function.

IHP 555. Environmental Stress and Human Performance (3).

Influence of a variety of environmental factors on human performance. Adaptations to environmental stressors through constant exposure. Formerly EXSC 555, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552.

Upon successful completion of this course, the student will be able to:

Know the impact of various environmental stressors on acute physiological responses during rest and exercise (submaximal and maximal).

Demonstrate an understanding of how the human body adapts to various environmental stressors. Demonstrate knowledge of correctly interpreting research, and effective communication skills using oral, print and visual formats.

IHP 556. Ergogenic Aids and Human Performance (3).

Use of physical, physiological, pharmacological, and psychological aids to improve human

performance. Formerly EXSC 556, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552.

Upon successful completion of this course, the student will be able to:

Demonstrate knowledge of the variety of ergogenic aids used to enhance human performance.

Demonstrate knowledge about the physiological, psychological, or mechanical mechanisms that enhance human performance.

Provide evidence of empirical studies that assess the validity of various ergogenic aids.

Demonstrate knowledge of the potential risks and deleterious effects of using ergogenic aids.

Demonstrate knowledge of correctly interpreting research, and effective communication skills using oral, print and visual formats.

IHP 557. Research Design (4).

Study concepts of scientific research process including selection of a research topic, literature review, methods and design, hypothesis testing, and research proposals. Formerly EXSC 557, students may not receive credit for both.

Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

Upon successful completion of this course, the student will be able to:

Synthesize information from published research and apply knowledge to construct a testable hypothesis and develop a literature review on a relevant topic.

Apply principles of research methods and design to test a research hypothesis.

Critique and apply scientific literature and effectively communicate knowledge on a relevant research topic.

IHP 559. Applied Kinesiology (3).

Study of human movement from a multidisciplinary perspective.

Disciplines may include anthropology, sociology, psychology, economics, medicine, exercise physiology, biomechanics, nutrition, motor learning, motor development, and physical education. Formerly EXSC 559, students may not receive credit for both. Prerequisites: IHP 551 and

IHP 552 or permission of the instructor.

Upon successful completion of this course, the student will be able to: Know human physical activity from a multidisciplinary perspective. Know how to prepare a research proposal incorporating various disciplines toward addressing a human movement question or hypothesis.

IHP 560. Inferential Statistics (4). Inferential Statistics is an intermediate course that focuses on the application of appropriate statistical procedures used in the fields of human physiology and nutrition. The course covers quantitative inferential statistics methods in theory and practice. Formerly EXSC 560, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of appropriate ways to present data in numerical and graphical format. Synthesize different concepts of logic and statistical analyses to investigate hypotheses using univariate or bivariate research designs.

Apply inferential statistical methods to calculate the statistics for a specific research question. Synthesize the results of inferential statistical analyses and effectively communicate results.

IHP 562. Clinical Exercise Physiology (3). This course introduces students to exercise principles and applications as they relate to individuals with chronic diseases and disabilities. Formerly EXSC 562, students may not receive credit for both.

Prerequisites: IHP 551 or IHP 552. Upon successful completion of this course, the student will be able to: Know the pathophysiology, specific exercise recommendations and prescriptions for cardiovascular disease, chronic obstructive pulmonary disease, diabetes, and cancer.

Demonstrate knowledge regarding the effects of obesity and aging on the human body and the

physiological differences between adults and children.

Know specific factors that must be considered when exercise testing or prescribing exercise for obese individuals, older adults, children and women.

Demonstrate the ability to critically think.

IHP 564. Gross Human Anatomy: Cadaver Dissection (1). Gross anatomy dissection of cadaver. One lab session weekly. Can be repeated for up to two credits during the same quarter. Formerly EXSC 564, students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Apply appropriate cadaver dissection techniques.

Identify and name major anatomical organs.

IHP 575. Musculoskeletal Biomechanics (3). Principles of statics and dynamics in biomechanical modeling theory. Application of principles to understanding influence of muscle mechanics and joint kinetics in healthy and clinical populations. Critical review of the biomechanics literature. Formerly EXSC 575, students may not receive credit for both. Prerequisite: EXSC 370 or equivalent.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of the relationship between muscle mechanics and the measure of musculoskeletal geometry, muscle moment arm.

Apply Newton's laws of motion to human movements.

Apply biomechanical model theory to quantify human movements.

Apply the principle of statics and dynamics to deformable bodies. Synthesize different concepts of human movement analysis in order to define a research question and methods to answer the question.

Read and synthesize articles from the clinical biomechanics literature and effectively communicate knowledge to their peers.

IHP 590. Cooperative Education (1-6). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual

arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. Grade will either be S or U. Formerly EXSC 590, students may not receive credit for both.

IHP 595. Graduate Research (1-6). Development and investigation of an approved laboratory or field research problem. Maximum of 6 credits may be included in course of study for the master's degree. Formerly EXSC 595, students may not receive credit for both.

IHP 596. Individual Study (1-6). By permission. May be repeated for credit. Formerly EXSC 596, students may not receive credit for both.

IHP 598. Special Topics (1-5). May be repeated for credit. Formerly EXSC 598, students may not receive credit for both.

IHP 599. Seminar (1-5). May be repeated for credit. Formerly EXSC 599, students may not receive credit for both.

IHP 696. Individual Study (1-6). May be repeated if subject is different.

IHP 698. Special Topics (1-6). May be repeated if subject is different.

IHP 699. Seminar (1-6). May be repeated if subject is different.

IHP 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Formerly EXSC 700, students may not receive credit for both.

Prerequisite: permission of chair of student's graduate faculty supervisory committee.

IS 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty and coordination. By permission. May be repeated for credit. Grade will either be S or U.

IS 596. Individual Study (1-6). Prerequisite: permission of the dean for Graduate Studies and Research.

IS 598. Special Topics (1-6). May be repeated if subject is different.

IS 599. Seminar (1-5). May be repeated if subject is different.

IS 696. Individual Study (1-6). May be repeated if subject is different.

IS 698. Special Topics (1-6). May be repeated if subject is different.

IS 699. Seminar (1-6). May be repeated if subject is different.

IS 700. Master's

Thesis/Examination (1-6).

Designated to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to six credits. Grade will be either S or U. Prerequisite: permission of chair of the student's graduate faculty supervisory committee.

IT 590. Cooperative Education (1-8). An individualized contracted field experience with IT and ADMG organizations, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated up to 8 credits. Grade will either be S or U. Prerequisite: by permission of instructor.

IT 591. Workshop (1-6). No more than two workshops for a combined maximum of eight credits can be applied toward a master's degree. May be repeated for credit. Grade will either be S or U.

IT 592. Practicum (1-6). Prerequisite: by permission of instructor.

IT 596. Individual Study (1-6).

IT 598. Special Topics (1-6). May be repeated up to 12 credits under a different subtitle. Prerequisite: by permission of instructor.

IT 599. Seminar (1-5). May be repeated if subject is different.

IT 632. Sustainable IT (4).

Explores ways that green IT can help an organization reduce its carbon footprint, utilize environmentally friendly materials, and accomplish effective reuse/recycling. How to use IT in a way that maximizes positive benefits and minimizes negative impacts. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: Demonstrate comprehension of green IT basic concepts: history, definitions, measurements, standards, tools, technologies, materials, and operations.

Apply a repeatable, accepted process to assess the carbon footprint of an organization's IT operations.

Assess the comparative impact of materials used in the design, manufacture and reuse/recycling of IT equipment.

Develop a strategy to reduce the environmental impact of IT operations, taking into account power distribution, displays, processing units, cooling, thin clients, blade servers, virtualization, and cloud computing.

Develop a strategy to reduce the environmental impact of other organizational operations as part of deploying effective IT, taking into account telecommuting, recycling, green buildings, and organization processes.

Achieve sufficient preparation to obtain internationally recognized Green IT certification.

IT 642. Strategic Management for IT (4). Provides a practical approach to IT Management practices and issues. Looks at IT components, includes including hardware, software, networks and data. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: Demonstrate an understanding of major information technology components: hardware, software, networks, and data

Describe in detail the capabilities of three categories of software applications: enterprise systems, managerial support systems, and e-business systems

Discuss and describe the process of designing or selecting, implementing, and supporting the utilization of software applications

Describe and discuss effective methods for planning, provisioning, and implementation of information technology resources

IT 647. Cybersecurity

Fundamentals (4). This course will provide students with a sound

foundation in cybersecurity concepts. Students will examine scenarios that allow them to identify vulnerabilities, risks, and remediation actions as it relates to the management of cybersecurity. Prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: List the fundamental concepts of the cybersecurity discipline.

Describe how the fundamental concepts of cyber defense can be used to provide system security.

Examine and assess the architecture of a typical complex system and identify significant vulnerabilities and risks.

Develop a risk management plan and recommend points at which specific security technologies/methods should be employed.

IT 657. Strategic IT Security (4).

Provides a comprehensive view of information security policies and frameworks from the raw organizational mechanics of building to the psychology of implementation. Presents an effective balance between technical knowledge and soft skills. Co- or prerequisite: ADMG 501.

Upon successful completion of this course, the student will be able to: Explain the purpose of information systems security policy management

Describe business drivers for information security policies

Demonstrate an understanding of U.S. Compliance Laws and information security policy requirements

Describe and discuss business challenges within the Seven Domains of IT Responsibility

Discuss information security policy implementation issues

Demonstrate an understanding of the types of IT security policy frameworks

Explain how to design, organize, implement, and maintain IT security policies

Describe IT security policy framework approaches

Describe User Domain policies

Explain IT infrastructure security policies

Demonstrate an understanding of data classification and handling

policies and risk management policies

Describe and discuss incident response team (IRT) policies
Compare and contrast IT security implementations

Describe and demonstrate an understanding of IT security policy enforcement

Describe the use and application of IT policy compliance systems and emerging technologies

IT 667. Cybersecurity Risk Management (4). This course focuses on the management of cybersecurity risks to an organization's information assets. Plans will be developed to preserve the business in the face of major security disruptions. Prerequisite: IT 647.

Upon successful completion of this course, the student will be able to:
Examine the roles and governance mechanisms used to ensure security of an organization's information assets.

Identify and categorize cybersecurity risks to an organization's information assets.
Develop countermeasures to cybersecurity risks to an organization's information assets.
Conduct business impact analysis of the cybersecurity risks to an organization's information assets.
Prepare a business continuity plan that includes a detailed disaster recovery plan.

IT 677. Operations and Physical Security (4). This course addresses operational and physical cybersecurity issues. Key topics will include faculty security, resource protection, and management of cybersecurity incidents.
Prerequisite: IT 647.

Upon successful completion of this course, the student will be able to:
Conduct an audit of an organization's information systems with a focus on cybersecurity controls.
Create management plans that address known cybersecurity vulnerabilities.

Recommend controls necessary to mitigate cybersecurity attacks.
Prepare a cybersecurity incident management and response plan.

IT 682. Enterprise Analytics (4). This course covers the application

of data-oriented analysis techniques for business intelligence and organizational decision-making.

Students will examine a range of tools to enhance the managerial decision making process such as pivot tables, descriptive statistics, statistical process control for business process improvement, and data models to predict future trends.
Co- or prerequisites: ADMG 501 and ADMG 545.

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of fundamental statistical terms and concepts.
Identify and apply proper statistical techniques.

Use descriptive measures and tools to describe and summarize sample and population data.
Properly apply probability distributions and theory to decision-making.

Properly apply and explain correlation analysis in decision-making.
Properly apply and explain regression analysis in decision-making.

IT 684. Approaches to Data Mining for IT Managers (4). This course surveys a variety of data mining techniques used in the information technology field.
Prerequisites: ADMG 501 and ADMG 545.

Upon successful completion of this course, the student will be able to:
Evaluate a variety of data mining techniques used in the information technology field.

Evaluate models and algorithms in relation to data mining techniques.
Determine the value of data mining in solving problems related to an organization's strategy and/or operations.

Apply algorithms to the process of data mining.
Assess the role of machine learning in data mining.

Evaluate visualization techniques used in data mining in terms of their ability to support decision-making.

IT 686. Approaches to Data Analytics for IT Managers (4). This course surveys a variety of techniques to analyze structured, and unstructured data. Prerequisites: ADMG 501 and ADMG 545.

Upon successful completion of this course, the student will be able to:
Evaluate operational information in terms of its usefulness in strategic process decisions.

Design comprehensive plans for analysis of information to support organizational decision-making processes.

Evaluate information about people in organizations in terms of its usefulness in strategic process decisions.

Create actionable information by using tools to process large data sets.

IT 688. Reporting Data and Analytics (4). This course surveys the development and presentation of data reports using applied IT programs. Prerequisites: ADMG 501 and ADMG 545.

Upon successful completion of this course, the student will be able to:
Analyze push and pull approaches to analytics reporting.

Evaluate potential solutions based on analytics data.

Justify recommendations using data mining and analytics.

Create data reporting tools appropriate for a client-based environment.

IT 689. Capstone Written Project (4). Serves as a means to distill the recurring themes and issues presented throughout the graduate program and creates a product that will contribute to the solution of real-world problems and concerns in the area of Information Technology.
Co- or prerequisites: ADMG 501 and ADMG 525 .

Upon successful completion of this course, the student will be able to:
Demonstrate an understanding of the knowledge and skills acquired in their courses to a specific problem or issue.

Incorporate their academic experience into areas of personal interest, working with new ideas, issues, organizations, and individuals.

Refine their research skills and demonstrate their proficiency in written and/or oral communication skills.

Create a final capstone written project in preparation for the thesis, project or practicum.

Demonstrate their achievement of the ITAM program of study outcomes and their ability to extend and refine this knowledge and skill in the realization of their personal and professional goals.

IT 696. Individual Study (1-6). May be repeated if subject is different.

IT 698. Special Topics (1-6). May be repeated if subject is different.

IT 699. Seminar (1-6). May be repeated if subject is different.

IT 700. Master's Thesis, Project Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

LAJ 511. Theories of Crime, Deviance, and Justice (5). Course will examine the leading scientific explanations of crime causation as well as the social, political, and legal responses to crime. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

Upon successful completion of this course, the student will be able to: Identify, analyze, and critique the major criminological explanations of crime causation.

Identify, analyze, and critique the major theoretical explanations of social, political, and legal responses to crime.

Identify, analyze, and critique the major scientific evidence regarding criminological and criminal justice theories and be able to describe the significance and limitations of each. Apply theoretical explanations covered in this course to develop evidence based approaches to reducing crime and other social problems.

Articulate the strengths and weaknesses of social science research.

LAJ 515. Personnel Issues in Criminal Justice (Put on reserve 9/16/17) (5). Addresses issues such as recruitment, retention, supervision, evaluation, workplace

human rights, and disciplinary issues. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

Prerequisite: admission to the MS in Law and Justice Program.

LAJ 516. Organizational Leadership (5). This course will provide students an opportunity to learn about transformational, transactional, and servant leadership styles. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission. Upon successful completion of this course, the student will be able to: Identify, analyze, and apply the general philosophies and principles of leadership styles with an emphasis in Organizational Leadership.

Explain and critique common and challenges and dilemmas that face leaders today and develop an effective approach to leading in times of crisis.

Develop students' leadership style and supplement it with alternative leadership styles for a comprehensive approach to leadership.

Develop and apply a leadership approach to a crisis situation in an organization.

Identify personal traits and characteristics associated with effective leaders and apply to actual case studies.

LAJ 520. Constitutional Issues in Criminal Justice (5). This course examines constitutional issues emerging within the context of the criminal justice system, law enforcement, prosecution, defense, judiciary, corrections, and community supervision. United States Supreme Court decisions reversing and modifying previous case law and effecting criminal justice practices and policy will be presented and discussed. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Explain and critique the basic structure and function of the court system with an emphasis on the

procedure and politics involved with criminal courts.

Read, discuss, and critique selected United States Supreme Court decisions.

Identify and critique the legal policy and politics involving constitutional rights, principles, and problems in the criminal justice system. Students will critique the strengths and weaknesses of current state of case law in the United States.

Refine and apply oral and written abilities in understanding constitutional issues in criminal justice.

LAJ 524. Policy Analysis (5). This course will provide students an opportunity to learn about institutions, bureaucracy and policy analysis and implementation.

Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice.

Upon successful completion of this course, the student will be able to: Students will be able to identify and apply the key elements in the creation and analysis of public policy.

Students will be able to identify examples of unintended consequences in public policy and apply these principles to analyze public policy.

Use various policy perspectives and approaches to craft policy addressing contemporary justice issues.

Define and apply systems thinking and its relevance to other policy related areas with a particular focus on national and international policy.

LAJ 535. Research Methods (5). The emphasis of this course is on developing students' ability to perform research designs, data collection, data processing and analysis in the field of criminal justice. Various research techniques will be covered, the analysis of both quantitative and qualitative, data, writing research reports and proposals, and the use of computers in research. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

Upon successful completion of this course, the student will be able to:

Identify basic research designs in criminal justice and criminology as well as critique the strengths and weakness with each of the primary research designs.

Identify different types of sampling methods and be able to apply these different sampling methods to conduct data collection.

Apply basic principles of ethics involved in research methodology.

Apply research design to address practical data collection efforts in the area of criminal justice and criminology.

Identify the differences between qualitative, quantitative, and mix method approaches and critique the strengths and weaknesses of each. Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 536. Statistics and Data

Analysis (5). Course will cover quantitative data analysis with an emphasis on univariate, bivariate, and multivariate statistical techniques typically used in criminal justice and criminological research. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

Upon successful completion of this course, the student will be able to: Interpret data using univariate, bivariate, and multivariate statistical techniques

Compute univariate, bivariate, and some multivariate statistics from raw data.

Explain the logic of various statistical techniques used in criminology. Explanations will incorporate the weaknesses and strengths of different techniques as well as applying the techniques to address research questions.

Interpret statistical techniques used in published research and apply them to address public policy problems in criminal justice and criminology.

Develop proper data management techniques.

Explain how research design impacts data analysis options and will make.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 540. Law and Social Control

(5). This course examines the nature of social control as it is vested in the objectives, procedures, and authority of law and the social-legal implications of social control and the limits of criminal law as a method of social control. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Distinguish the difference between civil and criminal law as well as discuss the limitations of both types of law to address social problems. Identify, analyze, and critique the primary theories of law and social control. In addition, they will be able to explain the advantages and limitations of each.

Identify, analyze, and critique the use and limits of application of criminal law to victimless crimes. They will also be able to discuss the policy implications of criminal law as a means to address victimless crime.

Identify cross cultural the uses and limits of law to address social problems. Students will be able to discuss the advantages and limitations of these various approaches and formulate solutions.

LAJ 541. Race, Class, Gender,

and Justice (5). This course will provide students an opportunity to learn about race, class, gender, and how these relate to the dispensation of justice. Formerly LAJ 525, students may not receive credit for both. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Identify the historical reality of the impact of race, class, and gender upon the law and its implementation.

Analyze the intersection of offending, victimization, and intimidation by race, class, and gender perspectives.

Analyze and explain issues of race, class, and gender discrimination and disparity in the criminal justice

system as well as the solutions to address these social problems.

Explore, analyze, and critique current strategies to eliminate race, class, and gender bias in the administration of justice. Students will be able to discuss the strengths and limitations of these various approaches.

LAJ 542. Criminal Justice

History (5). This course will focus on crime and disorder in the United States from the colonial period through the 20th century with an emphasis on social forces that influenced the development of the criminal law and its institutions of social control. Formerly LAJ 530, students may not receive credit for both. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission. Upon successful completion of this course, the student will be able to: Summarize knowledge of the ancient and British origins of law and explain how it impacts the contemporary criminal justice system.

Identify, explain, and critique the historical forces that impact contemporary criminal justice policy and discuss the implications for future crime trends and crime prevention efforts.

Apply historical research and analysis to help explain historical and contemporary miscarriages of justice.

Critically analyze historical research on criminal justice through an analysis of published work and presentation to the class.

LAJ 543. Theory and Evidence on

Crime Prevention (5). Course will review the contemporary research in applied crime prevention techniques used in criminology and criminal justice. Course will not have an established scheduling pattern.

Prerequisites: admission to the master of science program in law and justice or instructor permission. Upon successful completion of this course, the student will be able to: Identify and critique the basic theory underpinning empirically based crime prevention strategies.

Explain the state of empirical research regarding effective crime prevention strategies.

Apply the basic principles of effective crime prevention to local crime and social problems.

Identify, explain, and critique crime reduction approaches from various segments of the system (police, courts, corrections, schools, and communities) while articulating the strengths and weaknesses of each. Refine and apply critical thinking and problem solving skills to contemporary crime problems.

LAJ 544. Theory and Evidence in Policing (5). Course will focus on contemporary research on the role and function of the police, police effectiveness, and modern police strategies and tactics. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Identify and discuss the various roles and functions of the police and discuss the political, legal, and empirical implications of each. Distinguish between various philosophical approaches to policing (COP, POP, ILP, etc.) and how they should be applied to crime problems as well as discuss and explore advantages and disadvantages of each.

Analyze and critique the evidence on police effectiveness for each of the primary policing strategies. Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 545. Ethical Studies (5). Course will review ethical questions and principles in the area of criminal justice and criminology. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Identify, explain, and critique the basic ethical concepts and theories utilized in the field of criminal justice and criminology

Identify and explain macro level ethical issues and problems in the criminal justice process.

Apply ethical theories to a particular component of the criminal justice process in an effort to develop and propose solutions to contemporary issues.

Identify and analyze common ethical dilemmas and conflicts regarding public policy.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 546. Theory and Evidence in Corrections (5). Course will review the theoretical frameworks that explain modern corrections and review empirical research on contemporary best practices in corrections. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Identify and explain the basic history of corrections in the United States. Students will be able to explain how these early practices impact current operations in corrections.

Analyze the primary philosophies for punishment as well as the logical and practical limitations of each.

Identify the core principles of best practices literature regarding rehabilitation.

Discuss the practical issues of corrections and the research on how best to implement corrections in various settings.

Apply principles of best practices to create programs designed to reduce recidivism.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 547. Theory and Evidence in Courts and Law (5). Course will review research on court actors, court administration, and legal issues, with an emphasis on how these elements impact the court function. Prerequisites: admission to the master of science program in law and justice and completion of LAJ 535 and LAJ 536 or instructor permission. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to: Analyze and critique basic research on each major actor in the courtroom workgroup and the impact they have on the justice process.

Appraise the various ways courts impact all other elements in the justice system (and beyond the justice system).

Examine each critical decision points in the court system and apply this knowledge to propose methods to change the system to achieve greater crime control and just legal outcomes.

Identify, explain, and critique the basic elements of sentencing in the United States.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 548. Decision Making in Law and Justice (5). Review of literature on correlates of decision making with a focus on crime reporting, use of force, arrest, bail, charging, sentencing, and release. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Analyze the major decision making points in the criminal justice system. Compare the primary correlates of decisions that relate, as well as those that differ, across the system and be able to cite corresponding literature that supports their claims.

Critically analyze what discretion is, the role it plays in the system, and the practical problems that surround discretion in systems of justice. Apply how discretion plays a role in issues of disparity across the system and be able to apply corresponding literature to support their claims. Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 549. Juvenile Justice (5). Juveniles present many unique challenges for the contemporary justice system. This class will provide a baseline of information to students to allow them to work with these populations and be aware of their unique attributes. Course will

not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Identify, discuss, and critique the primary theories that explain juvenile delinquency.

Analyze the steps in the juvenile justice system and will be able to discuss the critical issues that are unique to juveniles.

Analyze the history of juvenile justice and the evolutions in law ending with contemporary laws that regulate juvenile behavior and conduct.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 550. Advanced Research Methodology (5). This course will explore advanced research techniques often utilized in criminal justice and criminological research. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice and completion of LAJ 535 and LAJ 536 or instructor permission.

Upon successful completion of this course, the student will be able to: Interpret statistical output from the most common advanced techniques (e.g. Structural Equation Modeling, Multi-Level Modeling (HLM), ARIMA, Trajectory Analysis, etc) Discuss the key factors, strengths, and limitations of each technique to assess if it has been used appropriately.

Apply select modeling techniques to analyze data.

Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 551. Legal Liability for Professionals (5). The course will provide an overview of liability issues facing criminal justice personnel. Students will also analyze strategies that will enable them to reduce risk of exposure to civil and criminal liability. Formerly LAJ 575, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: admission to the

master of science program in law and justice or instructor permission. Upon successful completion of this course, the student will be able to: Identify, explain, and critique major legal liability issues in criminal justice and develop potential solutions. Solutions will include a discussion of the advantages and limitations.

Analyze principles of civil liability under state and federal law and examine the impacts on the criminal justice system.

Apply principles of civil liability to various types of fact patterns Describe the basic role and responsibility in potential liability situations of persons in their chosen profession.

LAJ 552. Criminal Justice Controversies (5). Course focuses on divisive issues and policies which confront law and justice professionals. Particular emphasis on political, social, and ethical conflicts that emerge between opposing policy positions. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice or instructor permission.

Upon successful completion of this course, the student will be able to: Describe and explain major issues in criminal justice and criminology and account for the social, legal, and political forces that give rise to these issues.

Identify previous critical issues and be able to compare and contrast contemporary issues with past with an analysis of similar and different trends in each.

Advocate for their paradigm or approach while being aware of potential limitations. In short, students will learn to advocate for a position with responsibility in mind. Develop, refine, and apply skills to read, explain, and critique modern social science research.

LAJ 590. Cooperative Education (1-5). This course will provide the students an opportunity to briefly work in an area of their choosing while having a qualified professional mentor their work. Permission of instructor. May be repeated up to 12 credits. Grade will be S or U. Course will not have an

established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission. Develop the ability to review and identify relevant literature.

Develop proper workplace etiquette. Exhibit proper levels of behavior and professionalism in the workplace.

Work cooperatively with a diversity of other individuals.

Discuss research literature that implicates day to day activities and practices within workplace.

LAJ 596. Individual Study (1-6).

This course will provide the students an opportunity to conduct research in an area of their choosing while having a qualified professional mentor their work.

Permission by instructor. May be repeated for credit. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice or instructor permission.

Learner outcomes are defined by the particular individual study.

LAJ 598. Special Topics (1-5).

May be repeated for credit under different titles.

Prerequisite: admissions to the MS in Law and Justice Program.

LAJ 599. Seminar (1-5). May be repeated if subject is different.

LAJ 689. Master's Capstone (5).

An end-of-program course, which includes a basic review of courses, an oral/written examination and program assessment. The student must have completion of core courses and be within eight credits of graduation or permission from the Chair in order to register for this course. Grade will either be S or U. Prerequisite: admission to the master of science program in law and justice.

Upon successful completion of this course, the student will be able to:

Use theoretical frameworks to analyze and critique contemporary practices in criminal justice, criminology, and law.

Evaluate the effectiveness of practices and policies in criminal justice, criminology, and law.

Compare, contrast, and critique key methods of knowing in order to develop scientifically sound

positions on policies and practices in criminal justice, criminology, and law.

Evaluate the social equity of practices and policies in criminal justice, criminology, and law.

LAJ 690. Internship (1-6).

Permission of chair. May be repeated for credit. Grade will either be S or U.

LAJ 696. Individual Study (1-6).

May be repeated if subject is different.

LAJ 698. Special Topics (1-6).

May be repeated if subject is different.

LAJ 699. Seminar (1-6). May be repeated if subject is different.

LAJ 700. Master's Thesis, Project, Study, or Portfolio (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated for credit. Permission by instructor. Grade will either be S or U. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Students will develop an in-depth knowledge of a specific area of law, police, courts, or corrections.

Students will develop communication skills, including writing and/or speech.

Students will utilize criminological or criminal justice theory in the creation or defense of positions they take in their work.

Students will produce their own research product.

Students will develop an ability to synthesize complex material relating to criminal justice and criminology.

LIS 500. Professional

Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

LIS 596. Individual Study (1-6).

May be repeated if subject is different.

LIS 598. Special Topics (1-6). May be repeated if subject is different.

LIS 599. Seminar (1-5). May be repeated if subject is different.

LIS 696. Individual Study (1-6). May be repeated if subject is different.

LIS 698. Special Topics (1-6). May be repeated if subject is different.

LIS 699. Seminar (1-6). May be repeated if subject is different.

MATH 500. Professional

Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

MATH 591. Workshop (1-6). No more than two workshops for a combined maximum of eight credits can be applied toward a master's program.

MATH 595. Graduate Research (1-10). May be repeated for credit.

A maximum of five credits may count toward degree requirements. Grade will either be S or U.

Prerequisite: permission of advisor.

MATH 596. Individual Study (1-6). By permission.

MATH 598. Special Topics (1-6). May be repeated for credit under different subtitle.

MATH 599. Seminar (1-5). By permission. May be repeated for credit.

MATH 696. Individual Study (1-6). May be repeated if subject is different.

MATH 698. Special Topics . May be repeated if subject is different.

MATH 699. Seminar (1-6). May be repeated if subject is different.

MGT 525. Strategic

Management/Business Simulation (5). Developing accountants as business advisers. Performance measurement, financing, and overall corporate strategy. Business simulation involving professionals. Prerequisite: admission to a College of Business Graduate Program.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of business strategy concepts, theories and applications.

Make and justify strategic decisions in a business setting.

Integrate strategic decision making theories and select appropriate frameworks to make business decisions in a given context.

Assess the business environment with relevant theoretical frameworks and identify the implications for strategic decisions.

MGT 589. Business Ethics (5).

Examination of organizational and professional ethics through a behavioral lens with emphasis on making ethical decisions in these contexts. Prerequisite: admission to a College of Business Graduate Program.

Upon successful completion of this course, the student will be able to:

Demonstrate knowledge of legal statutes, professional guidelines, and institutional policies that guide professional behavior.

Compare and contrast ethics philosophies, frameworks, morals and values.

Demonstrate knowledge of issues in organizational ethics, including: corporate misconduct, employee deviance, and ethics of business strategy.

Relate theories of stakeholder management to organizational ethics.

Employ strategies for managing others in an ethical way and strategies encouraging others to be ethical.

Demonstrate knowledge of ethical decision-making models and be aware of the evolution of these models.

Identify constraints on ethical decision-making, including situational pressures, individual bias, and judgment errors.

Utilize compensatory strategies for improving ethical decision-making. Demonstrate knowledge of individual differences in ethical decision-making.

Comprehend the short and long-term implications of decision-ethically.

MGT 596. Individual Study (1-6). May be repeated if subject is different.

MGT 598. Special Topics (1-6). May be repeated if subject is different.

MGT 599. Seminar (1-5). May be repeated if subject is different.

MGT 696. Individual Study (1-6). May be repeated if subject is different.

MGT 698. Special Topics (1-6). May be repeated if subject is different.

MGT 699. Seminar (1-6). May be repeated if subject is different.

MIS 520. Enterprise System Integration and Application (5).

The application of enterprise information systems in the management of organizations. Explores the integration and impact of business processes and systems. Uses an industry enterprise system to simulate practice and support analysis. Course will not have an established scheduling pattern.

Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative undergraduate grade point average.

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 in areas such as accounting, procurement, fulfillment, 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.

Evaluate and explain the impact of changes to variables on the operating performance of individual processes and the overall business system.

Demonstrate the required steps to enter data, implement processes, analyze results and modify actions when using a modern enterprise resource planning system.

MIS 546. Systems Analysis and Design in Business (5). The analysis and improvement of business processes and subsequent planning, configuration and implementation of supporting enterprise system modules.

Incorporates systems development tools, modeling, process redesign; applications configuration. MIS 446 and MIS 546 are layered courses, student cannot receive credit for both. Course will not have an established scheduling pattern.

Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative undergraduate grade point average and MIS 520 or department chair approval.

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 560. Applied Business Analytics (5). Application of business intelligence tools and techniques in an enterprise system environment to retrieve and analyze

data and implement business decisions. Employs leading industry based enterprise management system, business intelligence tools and simulations. MIS 460 and MIS 560 are layered courses, student may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative collegiate undergraduate grade point average and MIS 520 or department chair approval.

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 industry-based enterprise management system.

Distinguish among the various data warehousing models.

Create a series of data analyses 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.

MUS 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

MUS 510. Vocal Jazz Choir (1). 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 up to six credits. For graduate students. Must attend all scheduled rehearsals and performances. By permission. May be repeated for credit.

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 513. Flute Choir (1). Two hours of rehearsal per week plus all scheduled rehearsals and performances. For graduate students. May be repeated for credit. Prerequisites: previous experience in flute performance.

MUS 514. Brass Choir (1). For graduate students. See MUS 214 for description. By permission. May be repeated for credit.

MUS 515. Chamber Orchestra (1). Two hours rehearsal per week plus all scheduled rehearsals and performances. By audition. For graduate students. May be repeated for credit. Course will be offered every year (Winter and Spring).

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 517. 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-E, G-I, L. By audition. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).

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 520. Methods of Teaching Theory (3). Methods of teaching for students preparing to teach core undergraduate music theory classes, including music fundamentals, counterpoint, harmony and voice leading, sight-singing, aural skills, dictation, and rudimentary analysis. Course will be offered on odd numbered years (Fall). Prerequisite: permission of instructor.

Upon successful completion of this course, the student will be able to: Articulate principles of sequential undergraduate instruction in written and aural music theory (e.g. music fundamentals, harmony and voice-leading, aural skills, dictation, and basic analysis).

Design and deliver effective undergraduate lessons in written and aural music theory.

Evaluate music theory texts and musical examples for their appropriateness for introductory, remedial, and advanced music theory instruction.

Design and interpret the results of diagnostic exams, skills checks, and written/aural examinations to provide feedback and evaluate student achievement in music theory.

MUS 521. Methods of Musical Research (3). Learning to formulate a logical approach to the process of identification, location, and evaluation of materials available to the music researcher and developing expertise in technical writing about music.

MUS 522. Advanced Orchestration (3). Study of various

scores and treatises. Individual projects. May be repeated for credit. Prerequisite: MUS 422C.

MUS 523. Advanced Composition (3). Selected topics in composition. May be repeated for credit. Prerequisite: MUS 420.

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."

Gain knowledge of and 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 knowledge and competency of notation software such as Finale or Sibelius.

MUS 524. Applied Pedagogy in Music (3). Teaching methods and materials for music instruction.

Upon successful completion of this course, the student will be able to: Describe and discuss topics pertaining to applied instruction.

Identify areas of personal interest within their specific instrument/voice and pursue in-depth research, writing and application of these topics.

Identify a variety of different teaching methodologies. Identify basic types of learning styles.

Identify and assess qualitative elements of musical interpretation, including musicianship, listening, technique, individual practice, and performance.

Demonstrate understanding of basic human anatomy and its relationship to proper alignment.

MUS 529. Percussion Ensemble (1). Two hours rehearsal per week plus all scheduled rehearsals and performances. For graduate students. By audition. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).

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 532. Big Band (1). Must attend all scheduled rehearsals and performances. For graduate students. See MUS 232 for description. By permission. May be repeated for credit.

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 535. Laboratory Choir (On reserve as of 9/16/15) (1). For graduate students. Two hours of rehearsal per week plus all scheduled rehearsals and performances. By permission. May be repeated for credit. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

MUS 536. Diction for Singers 1 (2). A course designed 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. At the graduate level students will be focusing on finer details within each language and preparing more advanced texts. 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 Italian, English, and Latin aloud from IPA transcriptions and from the original text.

Sing the sounds of the standard musical forms of 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 537. 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 language, the correct execution of German sounds, and the basic pronunciation rules of German. Prerequisite: MUS 536.

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 specifically used in German pronunciation.

Transcribe German texts in correct IPA symbols using standard rules of pronunciation.

Read German aloud from IPA transcriptions and from the original text.

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 538. 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. At the graduate level students will be focusing on finer details of French, and preparing more advanced texts. Prerequisite: MUS 536.

Upon successful completion of this course, the student will be able to:
Identify the symbols of the International Phonetic Alphabet.
Students will be able to execute the physical movements necessary to produce the sounds symbolized by the IPA symbols specifically used in French.

Transcribe French texts in correct IPA symbols using standard rules of pronunciation

Read French aloud from IPA transcriptions and from the original text.

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 540. Advanced Choral Interpretation and Technique (3).

For choral directors of all levels in the public schools and churches. New materials, voice production, intonation, interpretation,

conducting techniques, diction.
 Course will not have an established scheduling pattern.
 Upon successful completion of this course, the student will be able to:
 Exhibit how to prepare the score and plan rehearsals for an extended masterwork
 Describe multiple philosophies of programming.
 Develop an active listening evaluation process appropriate to the student's situation.
 Construct an adjudicator's "cheat sheet"
 Create effective standing arrangements
 Construct an overview of yourself (reflective practice in choral education).
MUS 541. Advanced Conducting (3). Emphasis upon the conducting of advanced literature in the major performance media. May be repeated for credit. Prerequisite: MUS 342.
 Upon successful completion of this course, the student will be able to:
 Demonstrate basic conducting skills including basic beat patterns, expressive conducting, preparation, releases, cuing, fermatas, asymmetric beat patterns, phrasing, tempo changes, dynamics, and articulation
 Read basic clefs including treble, soprano, alto, tenor, and bass clefs
 Read basic orchestral instrument transpositions including B-flat, E-flat, F, A, and G
 Be able to critically examine other conductors
 Articulate issues that relate to orchestral conducting including: programming, ear training, rehearsal technique, budget management, and string bowing
 Demonstrate knowledge of standard orchestral repertoire
MUS 547. Electronic Music Composition (3). Studies in electronic music with emphasis on compositional technique. MUS 347 and MUS 547 are layered courses; students may not receive credit for both.
MUS 549. Jazz Improvisation for the Jazz Impaired Teacher (Put on Reserve 9/16/16) (2). The course is designed to be an online class that addresses the needs of a teacher or current upper division student who

has had little or no experience in teaching jazz improvisation. The basic skills addressed in the class will be jazz piano, composing, skills needed to create a jazz solo, and learning the jazz language through transcribing a recorded jazz solo. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.)
 Prerequisite: undergraduate degree in music or by permission.
 Upon successful completion of this course, the student will be able to:
 Develop fundamental jazz piano composing skills.
 Develop fundamental jazz solo improvisation skills.
 Transcribe a jazz solo.
MUS 554C. Advance Technique Class: Strings (1-3). For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.
 Upon successful completion of this course, the student will be able to:
 Acquire intermediate to advanced performance skill on secondary instruments
 Demonstrate awareness of methods of effective group and individual instrumental instruction (modeling, pacing, diagnostics)
 Demonstrate knowledge of the sequence of intermediate to advanced instrumental technique
MUS 554D. Advance Technique Class: Woodwinds (1-3). For advanced study on secondary instruments. May be repeated up to 6 credits. Course will not have an established scheduling pattern. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.
 Upon successful completion of this course, the student will be able to:
 Articulate and apply the principles of the sequence of technique to planning of woodwind instruction. Articulate and apply the principles of prioritization in diagnosing and planning for remediation in woodwind instruction.
 Demonstrate the ability to model basic posture, embouchure, intonation, and articulation on a woodwind instrument.
 Evaluate solo and ensemble literature (both for performance and technical development) with regard

to its pedagogical appropriateness for learners of woodwind instruments at the beginning, intermediate, and advanced levels. Identify and diagnose basic reed problems, and demonstrate the knowledge and technique to address the problems through reed adjustment.
 Identify and diagnose basic instrument problems, and demonstrate the knowledge and technique to address the problems.
MUS 554E. Advance Technique Class: Brass (1-3). For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.
 Upon successful completion of this course, the student will be able to:
 Acquire intermediate to advanced performance skill on secondary instruments
 Demonstrate awareness of methods of effective group and individual instrumental instruction (modeling, pacing, diagnostics)
 Demonstrate knowledge of the sequence of intermediate to advanced instrumental technique
MUS 554G. Advance Technique Class: Percussion (1-3). For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.
 Upon successful completion of this course, the student will be able to:
 Acquire intermediate to advanced performance skill on secondary instruments
 Demonstrate awareness of methods of effective group and individual instrumental instruction (modeling, pacing, diagnostics)
 Demonstrate knowledge of the sequence of intermediate to advanced instrumental technique
MUS 554H. Advanced Technique Class: Guitar (1-3). For advanced study on secondary instruments. May be repeated up to 6 credits.
 Upon successful completion of this course, the student will be able to:
 Acquire intermediate to advanced performance skill on secondary instruments
 Demonstrate awareness of methods of effective group and individual

instrumental instruction (modeling, pacing, diagnostics)

Demonstrate knowledge of the sequence of intermediate to advanced instrumental technique

MUS 558. Survey of Solo Vocal Literature (3). All periods, performance or listening.

Background, stylistic traits, and performance concepts of the Art Song. By permission.

MUS 560. Instructional Development in Music Education (3). Curriculum design, learning styles, rehearsal and classroom management, and current trends impacting music education.

Upon successful completion of this course, the student will be able to: Read, interpret, and discuss scholarly and professional literature pertaining to curriculum design and assessment in music education.

Create examples of program and course design consistent with standards-based music instruction. Create examples of student assessments consistent with standards-based music instruction.

MUS 561. Opera Workshop (1-2). A class leading to the performance of scenes or single acts from opera. By audition. May be repeated for credit. Course will be offered on even numbered years (Winter and Spring).

Upon successful completion of this course, the student will be able to: Demonstrate fundamentals of proper tonal production 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 562. Opera Production (1-3). A class leading to performance of a complete opera. MUS 462 and MUS 562 are layered courses; students may not receive credit for both. May be repeated for credit.

Upon successful completion of this course, the student will be able to:

Prepare an advanced operatic role musically, including professional preparation expectations and the proper musical style for the period and genre.

Prepare an advanced operatic 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.

Incorporate their individual areas of expertise (Conducting, coaching, teaching) to prepare the overall production.

MUS 564. Major Applied Area (Individual Instruction) (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. 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 advanced pedagogical knowledge of the instrument. Demonstrate advanced proficiency in rhythm, sight-reading, 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 564A. Major Applied Area: Piano (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564B. Major Applied Area: Voice (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with

permission of instructor. May be repeated for credit.

MUS 564C. Major Applied Area: Strings (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits.

Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564D. Major Applied Area: Woodwinds (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564E. Major Applied Area: Brass (2 or 4). One half-hour lesson per week for 2 credits; one hour lesson per week for 4 credits; 1 credit if offered one term only during summer session. All students enrolled in lessons will register for the weekly recital hour. Instruction available in performance areas A-I. Open to non-Performance and non-Performance Pedagogy majors. By permission of instructor. May be repeated for credit.

MUS 564G. Major Applied Area: Percussion (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564H. Major Applied Area: Guitar (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 566. Wind Ensemble (1-2). Open to students with demonstrated proficiency on band instruments by audition or permission of the instructor. Five hours rehearsal per week plus all scheduled rehearsals and performances. For graduate

students. Two credits normally offered during academic year and one credit if offered one term only during summer session. For graduate students. May be repeated for credit.

MUS 567. University Choir (1-2). See MUS 267 for description. Two credits normally offered during academic year and one credit if offered one term only during summer session. For graduate students. May be repeated for credit.

MUS 568. Chamber Choir (2). See MUS 268 for complete description. May be repeated for credit.

MUS 569. 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. May be repeated for credit. Course will be offered on an odd numbered years (Winter, Spring). Upon successful completion of this course, the student will be able to: Demonstrate advanced individual creative and interpretive skills in a group environment.

Interpret advanced music in the collaborative atmosphere of ensemble and section settings.

Demonstrate advanced leadership and team working skills required when performing in a music ensemble with others.

Employ and improve advanced musical and technical skills through ensemble and sectional rehearsal and the individual practice of parts.

MUS 571. History of Orchestra Music (3). Forms and styles from the 17th to 20th centuries.

MUS 572. Music in the 20th Century (3). Forms and styles relevant to 20th-century music.

MUS 573. History of Opera (3).

MUS 574. Jazz Styles and History (3). A survey of jazz history focused on the evolution of jazz styles.

Course activities include analysis, transcription, guided listening, imitative composition, research, and essay writing.

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.

Identify jazz styles through listening.

Identify various jazz styles through written notation.

Compare and contrast various jazz styles in a critical context using current and historical sources.

Read a first-person biography by a well-known jazz artist, cross-referenced to other primary sources.

MUS 575. History of Chamber Music (3). Forms and styles from the late 16th-century to the present.

MUS 576. History of Choral Music (3). Forms and styles from medieval to modern.

MUS 577. Orchestra (1-2). Open to graduate students proficient on orchestral instruments by audition. Five hours rehearsal per week plus all scheduled

rehearsals/performances. Two credits normally offered during academic year and one credit offered during summer session. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).

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 579. Aesthetics of Music (3). Examination of various perspectives in the meaning and value of music.

MUS 587. Marching and Concert Band (1-2). Fall quarter only. See MUS 287 for description. For graduate students. May be repeated for credit.

MUS 588. Symphonic Band (2). See MUS 288 for description. For graduate students. May be repeated for credit.

MUS 592. Accompanying Practicum (1-3). By assignment of instructor. Minimum three hours rehearsal weekly per credit plus performances. For graduate students. May be repeated for credit.

MUS 595. Graduate Research (2).

For students doing preliminary or continuing thesis/project research. May be repeated once for credit.

May not be included in the course of study or counted toward the master's degree. By permission. Grade will either be S or U.

This course is designed to give graduate students additional time on their individual theses/projects.

MUS 596. Individual Study (1-6). May be repeated for credit.

MUS 598. Special Topics (1-6). May be repeated for credit under a different topic.

MUS 599. Seminar (1-5). May be repeated for credit.

MUS 600. Graduate Cognate Project (1). Students in approved graduate cognates in music must register for this course in the quarter they complete an approved culminating project. See specific cognate descriptions for details. Grade will either be S or U. Upon successful completion of this course, the student will be able to: Demonstrate graduate level knowledge in a second area of study.

Demonstrate graduate level skills and progress in applied study, as well as the acquisition of a knowledge base of performance repertoire and pedagogical literature by presenting an appropriate performance, project, or combination in lecture-demonstration.

Demonstrate graduate level skills and progress in conducting by preparing, rehearsing, and conducting a work at an appropriate level.

Demonstrate graduate level skills and progress in musical composition through the creation of an original work.

Demonstrate graduate level knowledge, critical thinking, research and writing skills in music

education by presenting an appropriate covering paper or written project.

Demonstrate graduate level knowledge, critical thinking, research and writing skills in Music History by presenting an appropriate covering paper or written project.

Demonstrate graduate level knowledge, critical thinking, research and writing skills in Music Theory by presenting an appropriate covering paper or written project.

Demonstrate graduate level skills and progress in applied study, as well as the acquisition of a knowledge base of a range of performance repertoire by presenting an appropriate performance.

MUS 610. Graduate Seminar in Music: Composer (1-3). Study of a particular composer's life and works. May be repeated up to 6 credits. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature pertaining to a particular composer's life and works.

Articulate and support personal positions and interpretations of issues pertaining to a particular composer's life and works.

MUS 611. Graduate Seminar in Music: Music Education (1-3). Seminar in selected topics in music education. May be repeated up to 12 credits. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature pertaining to seminar topics in music education.

Articulate and support personal positions and interpretations of issues pertaining to seminar topics in music education.

MUS 612. Graduate Seminar in Music: Music History/Literature (1-3). Seminar in selected topics in music history/literature. May be repeated up to 6 credits.

Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature

pertaining to seminar topics in music history/literature.

Articulate and support personal positions and interpretations of issues pertaining to seminar topics in music history/literature.

MUS 613. Graduate Seminar in Music: Music Theory/Composition (1-3).

Seminar in selected topics in music theory and/or composition. May be repeated up to 6 credits.

Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature pertaining to seminar topics in music theory and/or composition.

Articulate and support personal positions and interpretations of issues pertaining to seminar topics in music theory and/or composition.

MUS 614. Graduate Seminar in Music: Performance (1-3).

Seminar in selected topics in music performance. May be repeated up to 6 credits. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature pertaining to seminar topics in music performance.

Articulate and support personal positions and interpretations of issues pertaining to seminar topics in music performance.

MUS 615. Graduate Seminar in Music: Conducting (1-3). Seminar in selected topics in conducting.

May be repeated up to 12 credits. Course will not have an established scheduling pattern. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate a command of scholarly and professional literature pertaining to seminar topics in conducting.

Articulate and support personal positions on issues pertaining to seminar topics in conducting. Articulate and support musical interpretations of issues pertaining to seminar topics in conducting.

MUS 616. Graduate Seminar in Music: Pedagogy (1-3).

Seminar in selected topics in music pedagogy. May be repeated up to

12 credits. Course may be repeated in same term. Course will not have an established scheduling pattern.

Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to:

Demonstrate a command of scholarly and professional literature pertaining to seminar topics in music pedagogy.

Evaluate instructional materials pertaining to seminar topics in music pedagogy.

Develop instructional materials pertaining to seminar topics in music pedagogy.

MUS 664. Major Applied Area (Individual Instruction) (2 or 4).

Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to performance and performance pedagogy majors with permission of instructor. 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 advanced/professional level pedagogical knowledge of the instrument.

Demonstrate advanced/professional level proficiency in rhythm, sight-reading, and style.

Acquire knowledge and develop advanced/professional level performance ability through the study of basic literature of the instrument appropriate to the level of study.

MUS 696. Individual Study (1-6). May be repeated if subject is different.

MUS 698. Special Topics (1-6). May be repeated if subject is different.

MUS 699. Seminar (1-6). May be repeated if subject is different.

MUS 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's

graduate faculty supervisory committee.

NUTR 541. Applications in Dietetics (5). Concepts in clinical and community nutrition as well as food service management and administration. Interviewing and communication; assessing clients for nutritional risk; production and procurement practices; management functions and computer and research applications.

Upon successful completion of this course, the student will be able to: Promote effective interpersonal relationships in the practice of dietetics

Utilize computer and other technologies in the practice of dietetics

Participate in design and evaluation of quality management programs Comply with the Code of ethics and Standards of Practice for the Profession of Dietetics

Provide nutrition care for individuals and groups of all ages through systematic screening, assessment, planning, intervention, evaluation, and documentation Provide nutrition counseling and education to individuals and groups for health promotion, maintenance, treatment, and rehabilitation

Participate in the management of cost effective nutrition care

Assure that foodservice operations meet the food and nutrition needs of target audiences

NUTR 543. Advanced Nutritional Biochemistry (3). Advanced study of the effects of macro and micro-nutrients on human metabolism.

Prerequisite: NUTR 443.

Upon successful completion of this course, the student will be able to: Apply current research information in the practice of dietetics.

Describe the regulation of carbohydrate and lipid metabolism as they are affected by different physiological states.

Describe the process of protein catabolism with an emphasis on amino acid nitrogen disposal.

Apply the knowledge about carbohydrate, lipids, and protein metabolism.

NUTR 545. Advanced Studies in Developmental Nutrition (4).

Review of effects of nutrition on growth and development.

Nutritional assessment and evaluation of individuals and programs. Current issues in nutrition policies and programs with emphasis on early childhood.

Prerequisite: NUTR 345

Upon successful completion of this course, the student will be able to: Apply current research information in the practice of dietetics.

Provide nutrition counseling and education to individuals and groups for health promotion, maintenance, treatment, and rehabilitation.

Participate in activities that promote improved nutrition status of consumers and market the profession of dietetics.

NUTR 547. Nutrition Update (3).

Recent advances in nutrition research. Advanced study of selected nutrition problems. With permission, may repeat every other year. Prerequisite: NUTR 245.

Upon successful completion of this course, the student will be able to: Provides nutrition to consumers, clients, other professionals, and support personnel.

Utilizes computer and other technologies in the practice of dietetics.

NUTR 595. Graduate Research (1-10).

Development and investigation of an approved laboratory or field research problem. By permission. May be repeated. Maximum of six credits may be included in MS course of study. Grade will either be S or U.

Upon successful completion of this course, the student will be able to: Create a plan to complete a specific project that meets the educational needs of the student in an area not specifically covered in other classes.

NUTR 596. Individual Study (1-6). May be repeated for credit.

NUTR 598. Special Topics (1-5). May be repeated for credit.

NUTR 599. Seminar (1-5).

Discussion of specific topics from readings in biomedical journals, books, and other materials. May be repeated up to 5 credits. No more than 3 credits may be used to meet the 45 credit requirement for an MS degree. 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 the background, research question/hypothesis, and methodology of research articles in the biomedical field.

Interpret and summarize the results reported in these articles.

Assess the strengths and limitations of the research design.

Summarize and organize how the findings contribute to what is known in that specific area and the broader implications of the study.

NUTR 696. Individual Study (1-6). May be repeated if subject is different.

NUTR 698. Special Topics (1-6). May be repeated if subject is different.

NUTR 699. Seminar (1-6). May be repeated if subject is different.

NUTR 700. Master's Thesis (1-6).

Designed to credit and record supervised study for the master's thesis. By permission. May be repeated for credit. Grade will either be S or U. Prerequisite: permission of chair of the student's graduate committee.

Upon successful completion of this course the student will be able to: Be proficient in the subject matter covered in the Thesis.

PE 521. Advanced Football Coaching (Put on reserve 9/16/17) (3). (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

PE 523. Advanced Basketball Coaching (Put on reserve 9/16/17) (3). (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

PE 540. Socio-psychological Dimensions of Sport (3). The social and psychological factors which affect behavior and performance in sport.

PE 541. Sport and Culture (3). The interrelationship of sport with other aspects of the culture.

Upon successful completion of this course, the student will be able to: Describe, compare, and contrast the role of sport in the cultures of four countries from the following regions: Western, Eastern European, Asian, and African.

List and discuss the approximate financial impact of sport in the United States of America, South American or Western European Countries: 1) Sales, 2) Events, 3) Education.

Discuss the effects that socio-economical class has on sport participation in America.
 Discuss the effects that socio-economical class has on sport participation in third world countries.
 Compare and contrast the value of attaining excellence in sport in cultures in the United States of America.
PE 560. Systematic Analysis of Teaching Physical Education (3).
PE 561. Curricular Trends in Physical Education (3).
 Investigation of current trends in physical education curriculum design. Prerequisite: PE 300 or previous K-12 teaching experience. Upon successful completion of this course, the student will be able to:
 Define the purpose of student assessment.
 Explain the four steps in the assessment process.
 Explain how to evaluate assessment instruments (tools).
 Explain and compare norm-referenced and criterion referenced tests.
 Explain how to make instructional decisions based on assessment data.
 Explain how to make placement and classification decisions based on assessment data.
 List and explain the rules for assessment.
 Demonstrate the ability to achieve at least 80% assessment accuracy on three fundamental motor skills.
 Demonstrate the ability to plan and implement an appropriate assessment activity.
 Define the purpose of prescription.
 Explain how to interpret student pre-assessment results.
 Explain how the pre-assessment data are used to set target achievement levels--meaningful gain.
 Understand the scope and content of the I CAN resource materials and how these can be used in the prescriptive process.
 Demonstrate the ability to plan a prescriptive lesson plan based upon student assessment data.
 Understand the role of continuous assessment and its relationship to effective teaching.
 Know the ABC definition of teaching.

Understand how effective teaching addresses the essentials of student learning.
 Understand how class management techniques can be used to increase teaching effectiveness.
 Understand how the process of task analysis can be used to modify skills, activities and equipment to meet the needs of all learners.
 Understand the concept of on-task time and how it applies to effective teaching and student learning.
 Understand the concept of balance between success and challenge tasks.
PE 590. Cooperative Education (1-6). An individualized, contracted field experience with business, industry, government, or social service agencies. The 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.
PE 591. Workshop (1-6). May be repeated for credit.
PE 596. Individual Study (1-6). By permission. May be repeated for credit.
PE 598. Special Topics (1-6). May be repeated for credit.
PE 599. Seminar (1-5). May be repeated for credit under different titles.
PE 696. Individual Study (1-6). May be repeated if subject is different.
PE 698. Special Topics (1-6). May be repeated if subject is different.
PE 699. Seminar (1-6). May be repeated if subject is different.
PHYS 561. 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
 Design and implement finite-difference algorithms to solve time dependent partial differential equations using both C and FORTRAN programming languages
 Design and implement finite-element algorithms to solve boundary condition driven problems using both C and FORTRAN programming languages
 Quantify the numerical errors associated with discretization
PHYS 562. Multiphysics Modeling Using COMSOL (On reserve as of 9/16/15) (4). Students will learn how to use the multiphysics software package COMSOL to solve problems that involve coupled physical processes. Emphasis is on establishing a computational mesh, choosing appropriate differential equations and boundary conditions, and displaying and interpreting the results. Put on reserve 9/16/15. Will go inactive 8/24/18. Prerequisites: MATH 376 and PHYS 561.
 Upon successful completion of this course, the student will be able to:
 Develop a model of a physical system within the COMSOL programming environment, including boundary conditions and coupling parameters
 Apply appropriate meshing to a COMSOL model
 Create effective displays of computational results
 Quantify the numerical errors associated with a COMSOL model
PHYS 595. Directed Research (1-5). By permission. May be repeated for credit.
PHYS 596. Individual Study (1-6). May be repeated if subject is different.
PHYS 598. Special Topics (1-6). May be repeated if subject is different.
PHYS 599. Seminar (1-5). May be repeated if subject is different.
PHYS 696. Individual Study (1-6). May be repeated if subject is different.

PHYS 698. Special Topics (1-6).

May be repeated if subject is different.

PHYS 699. Seminar (1-6). May be repeated if subject is different.

POSC 520. Public Sector Management and Administration

(5). The impact of United States constitutional context, executive-legislative relations, intergovernmental and inter-organizational dynamics on executive decision making methods in public sector management at the entity wide, program and resource management levels. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Recognize and identify analytical concepts in the concrete manifestations of everyday governmental life.

Use concepts and techniques to discover, explain and solve public sector managerial problems.

Identify, define and apply current concepts and approaches to management in the public sector.

Understand and explain the structure and functioning of institutions and the roles of public sector managers in the United States.

POSC 521. The Public Executive (5). The function and operation of the executive branch; role and relationship of political executives (both elected and appointed) with the bureaucracy and other branches; leadership and decision-making; the management, supervision, and practice of policy development. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Identify and Explain major roles of executives in public organizations; explain the distinction between political and administrative roles and personnel in said organizations (e.g., federal executive branch) Identify and Apply models of decision-making in the public executive leadership environment/context; successfully analyze and critique strengths and weaknesses of approaches Demonstrate mastery of or minimal competency in standard academic research and writing conventions

Use concepts, methods and techniques to discover, explain and solve public sector managerial problems

Identify, master and apply current approaches to management in the public sector

Apply and explain the structure and functioning of institutions and roles of public sector managers and leaders in the United States

POSC 522. Comparative Public Administration (5). Comparison of structures, systems and functions of public administration in the U.S. and East Asian countries focused on national development and management. Examined are theories, management principles, functions of bureaucracies and bureaucratic culture. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Demonstrate an understanding of basic terms, concepts, theories of Public Administration.

Demonstrate an understanding of ideological, political, economic, social, and cultural context/environment as well as structures of public administration systems both in the U.S. and in East Asian countries.

Demonstrate an understanding of similarities and differences of structures, systems, goals, and issues of public administration in the industrialized countries in the West, and East Asian countries. Demonstrate an understanding of identification of major problems, issues, and policy goals public administration on national development in different country settings, and what specific functions/approaches bureaucracies are expected to perform.

Demonstrate an understanding of public bureaucracies both at the national and local level governments in terms of their goals, tasks, resource basis.

Understand the working relationship between the national and local level bureaucracies.

Demonstrate how to investigate the dynamic nature of public administration from a comparative analysis perspective that involves many factors (e.g., Politics,

economics, culture, ideology, social settings, etc.).

POSC 523. Public Finance and Budgeting (5). Survey course of public financial management and budgeting.

Upon successful completion of this course, the student will be able to: Describe processes by which national, state, local and public organization budgets are prepared, administered and managed

Ability to apply proper budgeting practices rules and regulations

Categorization of the correct forms of public expenditures

Identification of the various forms of public budgeting approaches used by various governmental organizations and across time (incrementalism, PBB, ZBB, etc.)

Classification of the different components of a public budget

Devise and formulate, then produce, hypothetical budget for public organization

Compare and contrast budget processes in the private and public sectors

Evaluate US budget and budget process from normative and analytical perspectives

POSC 526. Evaluating Public Policy Effectiveness (5). This course applies scientific methods in the public policy administration arena to evaluate the effectiveness of public programs in local and state government. Students apply at least one qualitative method to a real research questions. Prerequisite: graduate standing.

Upon successful completion of this course, the student will be able to: Distinguish between several different public sector qualitative and quantitative analysis methods. Formulate research questions. Match the appropriate type of analysis method with specific types of research questions.

Critique the analysis methods and results of an original public sector research study or presentation.

Demonstrate one qualitative research method.

Understand and use the case study method of learning.

Apply critical thinking to case studies and research studies orally and in writing.

Express ideas clearly and effectively in writing and orally in class.

POSC 527. Nonprofit

Organization Administration (5).

Focuses on the roles played by nonprofit organizations in meeting the public good.

Upon successful completion of this course, the student will be able to:
Classification of the different theoretical approaches towards how nonprofit organizations are managed

Identification of the various stakeholders influential for different types of nonprofit organizations

Analyze the advantages and disadvantages of different leadership approaches within existing nonprofit organizations

Develop a leadership plan for a nonprofit organization and justify it

Describe and examine the complexity of the nonprofit-policy process and evaluate management challenges and successes

Select and demonstrate appropriate skills and strategies managers can use to advance the causes or achieve goals of their nonprofit

POSC 530. State and Local

Government (5). This course examines the administration of local and state government.

Upon successful completion of this course, the student will be able to:
Identify and analyze the unique responsibilities and

interrelationships between local and state governments to one another

Delineate and discuss examples of how political structures differ among states and localities and use comparative method to analyze outcomes-and explain differences

Explain and categorize the functioning and responsibilities of each level of government to their respective constituencies

Recognize differences between levels of government (municipality, county, special district, state) and assess which level is most effective for different policy areas

Identify cases where policy is affected by degrees of state/local government variation

Explain and discuss how balance of power between levels of government has changed over time

Illustrate, analyze and assess effects of socioeconomic, geographic and

political circumstances and how they create differing policies across states and localities

POSC 535. Government

Information Systems (5). An examination of the role and impact of digital information technology in the process of governance with special attention to the associated issues of transparency, productivity and responsibility.

Upon successful completion of this course, the student will be able to:

Describe the theoretical and practical issues associated with information processing and. public sector information management

Identify a series of potential targets that might be affected by cyber-attacks, and strengths and weaknesses of various e-government platforms

Establish and identify standards relevant for information systems

Demonstrate the importance of protecting governmental information systems from unauthorized access

Identify the relevant aspects of the public administration context for public-sector ICT innovation and reform

Evaluate the relative strengths and weakness of different ways of storing and securing data

Compare and contrast different digital government and public services (ICTs, web processes, social media, etc.), and assess use of specific technologies for achieving public value in different service/policy areas

Describe and assess the controversies surrounding, and advantages and disadvantages of e-government in all its forms

Design a web-based interface for an employer, prospective or hypothetical government organization

POSC 537. Intergovernmental

Relations (5). Comparative study of the issues involved in implementing governmental programs across multiple jurisdictions.

Upon successful completion of this course, the student will be able to:

Identify and describe current theories and approaches of intergovernmental relations

Explain the theoretical and historical development of IGR in the USA

Identify and describe the impact that governmental decisions at various levels have/ effects on other levels of government

Explain and differentiate between horizontal (intra-level) and vertical (inter-level) government interactions in the US system

Identification and application of how official and semi-official actors affect the various governmental organizations at each level

Selection and application of a theoretical perspective to evaluate an actual real-world policy or government program administered and/or funded by more than one level of government

Provide examples where failure to coordinate across governmental organizations led to policy failures or shortcomings and describe how to prevent problems in the future. Provide alternative "successful" examples

Compare, contrast and evaluate major federal grant and funding models promulgated by different administrations or policy analysts

POSC 550. Administrative Laws and Regulations (5). Exploration of the impact of constitutional arrangements on the activities of administrative agencies in the implementation of distributive, regulatory and redistributive policies with a focus on rule-making, investigation and adjudication.

Upon successful completion of this course, the student will be able to:
Demonstrate an appreciation of the constitutional foundations of the current structure of different governmental organizations. Distinguish between regulatory and administrative adjudicative processes.

Describe the roles administrative discretion, rule-making authority, and adjudication play in the execution of administrative policymaking.

Analyze how the U.S. Administrative Procedures Act affects different levels of governmental organizations.

Identify and evaluate innovations in rule- making (public participation,

electronic rulemaking, and negotiated regulation, etc.) on administrative effectiveness and legitimacy.

Evaluate the effectiveness of various agency controls upon the administrative process of government.

Distinguish between formal and informal modes of administrative policymaking, and different types of regulation (moral, economic, social).

Illustrate and synthesize the regulatory and rule-making process through examination of actual regulations.

Select and argue an administrative law case (real or hypothetical) and justify/defend a position through relevant arguments and evidence to illustrate legal processes.

Evaluate methods and degrees of administrative accountability in the legal and regulatory environment.

POSC 560. Comparative Public Policy (5). Comparative analysis of policy and policy process in Western and Non-western setting with a special emphasis on the impact of globalization on both policy and process.

Upon successful completion of this course, the student will be able to: Examination of the various theoretical approaches towards public policy; identification of policy concepts common to nations of the world.

Compare and contrast the various constituencies, ideas, knowledge, political forces affecting public policy in different political systems.

Recognize, through the comparative method, how different political and governmental structures affect each of the stages of the policy process.

Critique and analyze policy development and implementation from a variety of selected countries.

Identify the difficult points in the development and implementation of public policy in a variety of different cross-national contexts.

Identify, describe and analyze the effects of historical, cultural, and socioeconomic factors on how public policy has been traditionally formulated and implemented across nations.

Choose a policy area within the student's interest or expertise and

compare and contrast alternative approaches from at least two different countries.

Design and adapt a policy approach from another society and evaluate its applicability and relevance to another (e.g., German health care policy to USA).

POSC 595. Graduate Research (1-10). For students doing advanced research, writing and study to complete their capstone project required for the master's degree. Maximum of 10 credits may be included on course of study for the master's degree. Prerequisite: all other courses in the master degree program should be completed prior to POSC 595. Co-requisite: either completed or enrolled in all other required course work.

Upon successful completion of this course, the student will be able to: Identify significant relevant public-sector management or policy problem, for analysis

Analyze significant relevant public-sector management or policy problem, and/or propose solution or recommendations

Synthesize variety of major concepts within field and apply them to real-world policy issue or management problem

POSC 596. Individual Study (1-6). May be repeated if subject is different.

POSC 598. Special Topics (1-6).

POSC 599. Seminar (1-5). May be repeated if subject is different.

POSC 689. Capstone Project (5). The capstone project bridges the gap between coursework, research, and professional practice. Criteria is set by a faculty advisor. The final project should address political, social, economic, managerial, or other factors relevant to an identified topic. Prerequisite: must be taken in the final quarter of the program.

Upon successful completion of this course, the student will be able to: Identify significant relevant public-sector management or policy problem, for analysis

Analyze significant relevant public-sector management or policy problem, and/or propose solution or recommendations

Synthesize a variety of major concepts within field and apply

them to a real-world policy issue or management problem

POSC 696. Individual Study (1-6). May be repeated if subject is different.

POSC 698. Special Topics (1-6). May be repeated if subject is different.

POSC 699. Seminar (1-6). May be repeated if subject is different.

POSC 700. Master's Thesis and/or Examination (1-6). Designed to credit and record supervised study for the master's degree thesis, non-thesis project, or examination. By permission only. May be repeated up to 6 credits.

PRIM 501. Introduction to Primatology (4). Introduces students to the perspectives anthropologists, biologists, and psychologists bring to the study of nonhuman primates.

Upon successful completion of this course, the student will be able to: Describe and evaluate the contributions psychology has made to the field of primatology.

Describe and evaluate the contributions biology has made to the field of primatology.

Describe and evaluate the contributions anthropology has made to the field of primatology.

Evaluate the primary literature in primatology and recognize the disciplinary perspective of the authors.

Describe and evaluate interdisciplinary research in primatology.

PRIM 502. Senior Animal Technician (1). This course covers skills of Grade 1 Animal Technician and Senior Animal Technician with a focus on primates. Students learn International Primatological Society's and US Department of Agriculture's standards for primates' captive management and care. Course will be offered every year (Fall and Spring).

Upon successful completion of this course, the student will be able to: Define US Department of Agriculture (USDA) nutritional requirements for captive nonhuman primates.

Define Occupational Safety and Health Administration (OSHA) standards for animal caregivers.

Recall US Department of Agriculture (USDA) standards for enclosure design for captive nonhuman primates.
Discuss how social housing impacts captive nonhuman primates' health and well-being.
Assess the adequacy of enrichment activities for captive nonhuman primates.

Evaluate professional standards for maintaining captive nonhuman primates.

PRIM 503. Current Issues in Primatology (4). This course surveys current literature in primatology, with students identifying major theoretical and methodological topics of interest to primatologists. Prerequisite: PRIM 501.

Upon successful completion of this course, the student will be able to:
Demonstrate knowledge of the current methodological approaches used in primatology.

Demonstrate knowledge of the current theoretical orientations used to interpret primatological data.
Identify what is currently unknown in primatology.

Identify which species or populations of primate are understudied.

Identify trends in primatology.

PRIM 504. Primate Culture and Cognition (4). Seminar course covering topics in primate social behavior, intelligence, learning processes, communication and culture. Topics will be covered through weekly reading assignments, class discussions, and a research paper. Prerequisite: PRIM 501.

Upon successful completion of this course, the student will be able to:
Compare social behavior, intelligence, and learning processes among primate taxa

Become familiar with learning processes relevant to primates

Recognize and describe the social organizations of primates

Define and describe examples of material culture in primates

Become familiar with communication processes in primates

Develop abilities to evaluate claims of examples of culture in nonhuman primates

PRIM 505. Ethnoprimatology (4).

Survey of the research conducted on human and nonhuman primate interactions and coevolution. Course will be offered on odd numbered years (Spring).

Upon successful completion of this course, the student will be able to:
Examine the human-primate relationship from various historical and cultural perspectives.

Summarize the needs and challenges of both humans and nonhuman primates living in the same location.

Assess how the ethnoprimatological perspective influences conservation efforts and humans' relationships with animals and the institutions that house animals.

Appraise the current ethical and moral arguments for and against the use of nonhuman primates in research and captivity.

PRIM 506. Survey of the Primates (4). Survey of nonhuman primate species, including the ecological, ethological, and evolutionary principles used to understand primates in natural and captive settings. Foundational course for graduate captive care certificate and/or for graduate research focused on primates. Grade will either be S or U. Course will be offered every year (Fall).

Upon successful completion of this course, the student will be able to:
Identify the species that comprise the order Primates

Interpret the evolutionary relationships that are embedded in the way primates are taxonomically grouped

Predict the behavior of a nonhuman primate species using evolutionary theory

Predict the behavior of a nonhuman primate species using socioecological theories and the species' morphological characteristics

Compare the dietary adaptations of a lemur, a New World monkey, an Old World monkey, and an ape species

Given some information about an unknown primate species, generate the species' likely social organization, social structure, and mating system using evolutionary principles

PRIM 511. Primate Conservation (4).

A seminar that focuses on conservation issues of particular relevance for non-human primates, including deforestation, bushmeat hunting, and pet trade; conservation strategies, including reintroduction, captive management, and ecotourism. ANTH 411 and PRIM 511 are cross-listed courses; students may not receive credit for both.

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.

PRIM 513. 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.

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.

PRIM 514. Research Design in Primatology (3). This course aids in students' development of research proposals and thesis topics through development of dependent and independent variables, preparation of data sheets, data entry, selection of analytical models, and preliminary data analysis. Course will be offered every year (Winter). Prerequisite: PRIM 513.

Upon successful completion of this course, the student will be able to:

Construct dependent and independent variables

Test the efficacy of a data sheet designed by each student
Defend an analytical model selected by each student

Analyze dummy data using data entry method and analytical model selected by each student

PRIM 516. Apes (4). An overview of of small- and large-bodied ape evolution, ecology, and behavior in wild and captive settings. ANTH 416 and PRIM 516 are equivalent courses, students may not receive credit for both. Course will be offered on on odd 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 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. (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)

PRIM 595A. Graduate Research in Primatology (1-10). Organize or conduct an approved laboratory and/or field research problem. By permission. Maximum of 10 credits may be included on course of study for the master's degree.

Upon successful completion of this course, the student will be able to:
Development of graduate research hypothesis

Find primary literature relevant to a particular research hypothesis
Distinguish various behavioral data collection methods
Distinguish various methods used to analyze behavioral data

PRIM 595C. CHCI Graduate Research (1-10). Organize or conduct an approved research problem based at Chimpanzee and Human Communication Institute.

By permission. Maximum of 10 credits may be included on course of study for the master's degree.

Upon successful completion of this course, the student will be able to:
Development of graduate research hypothesis

Find primary literature relevant to a particular research hypothesis
Distinguish various behavioral data collection methods

Distinguish various methods used to analyze behavioral data

PRIM 596. Individual Study (1-6). May be repeated if subject is different.

PRIM 598. Special Topics (1-5). May be repeated for credit.

PRIM 599. Seminar (1-5). May be repeated if subject is different.

PRIM 696. Individual Study (1-6). May be repeated if subject is different.

PRIM 698. Special Topics (1-6). May be repeated if subject is different.

PRIM 699. Seminar (1-6). May be repeated if subject is different.

PRIM 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital and/or examination. By permission. May be repeated for credit. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

PSY 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

PSY 501. Professional Seminar in School Psychology (3). An introduction to the activities of school psychologists and the conditions under which they function. Prerequisite: admission to the school psychology program.

PSY 502. Professional Orientation: Mental Health Counseling (3). Professional identity in mental health counseling. Roles and functions of mental

health counselors, professional organizations, credentialing, and accreditation, practices, and standards. May be repeated up to 6 credits. Permission by department. Course will be offered every year (Fall). Prerequisite: admission to graduate program in mental health counseling.

Upon successful completion of this course, the student will be able to:
Know the history and philosophy of the counseling profession and mental health counseling

List significant factors and events
Describe societal and cultural dimensions and trends in mental health counseling

Outline economic and political dimensions and trends in mental health counseling

Understand the multiple professional roles and functions of counselors across specialty areas, and their relationships with human service and integrated behavioral health care systems, including interagency and interorganizational collaboration and consultation.

Describe assumptions and roles of mental health counseling professional

List professional functions
Describe functions and relationships among interdisciplinary treatment teams and with other human service providers

Outline the historical, organizational, legal, and fiscal dimensions of public and private mental health care systems

Describe counselors' roles and responsibilities as members of interdisciplinary community outreach and emergency management response teams

Describe current labor market information relevant to opportunities for practice within the counseling profession.

Describe the impact of technology on the counseling process and profession.

Describe the role and benefits of professional organizations related to mental health counseling

Describe preparation standards, and credentials relevant to the practice of clinical mental health counseling

Describe preparation standards
Describe professional credentialing, including certification, licensure

Outline accreditation practices and standards

Know legislation and government policy relevant to clinical mental health counseling

Describe public policy issues relevant to counseling practice, credentialing, and accreditation
Describe the role and process of the professional counselor in advocating on behalf of the profession

Outline advocacy processes needed to address institutional and social barriers that impede access, equity, and success for clients

PSY 503. Proseminar in School Counseling (Put on reserve as of 9/16/15.) (3). Introduction to role of the school counselor; comprehensive, developmental guidance, and counseling programs; interagency collaboration; current professional issues in school counseling. By permission. 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:
Describe professional orientation (studies that activity provide an understanding of all aspects of professional functioning including history, roles, organizational structures, ethics, standards, and credentialing).

Describe foundations of school counseling including: History, philosophy, and trends in school counseling, role and function of the school counselor in conjunction with the roles of the professional support personnel in the school, knowledge of the school setting and curriculum including the state learning goals and essential academic learning requirements, ethical standards and guidelines of the American School Counselor Association, state and federal policies, laws, and legislation relevant to school counseling.
Describe promotion of the use of counseling and guidance activities and programs by the total school community to enhance a positive school climate.

Describe theory, knowledge, and skills for the practice of school counseling, including: Preparation of a counseling schedule reflecting appropriate time commitments and

priorities in a developmental school counseling program, crisis intervention and referral, and system dynamics, including family, school, community, etc.

PSY 504. Thesis and Project Management (Put on reserve as of 9/16/15.) (1). Comprehensive review of thesis/project process including topic and advisor selection, library research, proposal construction, timing of data collection, writing and editing, and final defense. Grade will either be S or U. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

Prerequisite: admittance a masters program in psychology.

Upon successful completion of this course, the student will be able to:
Demonstrate the skills necessary to select and sufficiently narrow a thesis/project topic area of interest such that a testable hypothesis statement can be formulated.

Demonstrate the ability to match appropriate research methods to a variety of possible thesis/project topics and questions.

Demonstrate the skills and knowledge needed to identify appropriate potential thesis/project advisors.

Demonstrate library research skills and writing techniques needed for developing a review of the literature relevant to their chosen topic.

Demonstrate an understanding of the public/collaborative nature of the thesis/project process.

Demonstrate time management skills needed for thesis/project management.

PSY 505. Professional Development in Experimental Psychology (1). An introduction to graduate school for first-year students with an emphasis on enhancing professional skills, including topics on career paths, written and verbal communication, grant-writing, conference attendance, and professional behavior. By permission. 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:
Demonstrate an understanding of materials relating to professional development

Demonstrate professional oral and written communicate skills
Demonstrate familiarity with the major sub-disciplines within psychology and weigh evidence presented in specific fields
Demonstrate collegiality and professional behavior

PSY 510. Instructional Strategies in the Behavioral Sciences (3).

This course will provide the preliminary skills necessary to teach diverse undergraduate learners in the behavioral sciences with an emphasis on lesson plan delivery, developing and evaluating course assignments, and utilizing technology in the classroom. 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:
Design and prepare a teaching plan.
Formulate and evaluate goals for a specific lesson plan.

Construct strategies for grading assignments.

Compare and evaluate technologies to deliver lesson plans.

Assemble a repertoire of strategies flexible enough for diverse learners.

PSY 512. Basic Principles of Behavior Analysis (3). This course will familiarize with the basic principles of experimental behavior analysis, including respondent and operant conditioning. Complex behavioral phenomenon such as choice motivation, and rule-governed behavior will also be covered. Acceptance into ABA/Exp PSY programs or by permission.

Upon successful completion of this course, the student will be able to:
Describe philosophical assumptions and philosophy of behaviorism.
Describe the basic principles of behavior analysis, and critically evaluate research studies examining those principles.

Describe respondent and operant behavior as well as the conditioning process for each of these.

Demonstrate mastery of complex aspects of operant behavior such as schedules of reinforcement, stimulus control, and extinction.

Demonstrate mastery of behavioral explanations for advanced behavioral phenomena such as

choice, motivation, and rule-governed behavior.

PSY 513. 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 (Graduate students) show a deep knowledge of at least two aspects of sustainability

PSY 515. Behavioral Medicine and Health Psychology

(4). The application of psychology to the understanding of illness and to its prevention and treatment with special emphasis on current health topics (s.g., stress, HIV/AIDS). PSY 415 and PSY 515 are layered courses; 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 health-related behaviors and attitudes.

Describe major psychological theories concerning health-promoting 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 health-compromising behaviors.

Articulate the roles and contributions of behavioral specialists (e.g., mental health counselors, psychologists) in the primary health care setting.

PSY 520. 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.

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 521. Human Neuroanatomy

(4). An introduction to the anatomical organization and basic functional/clinical principles of the major systems of the human brain and their relation 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 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. Describe neural mechanisms of motor control, sensory processing, homeostatic maintenance, neuromodulation and higher cognitive functions (e.g. learning, memory and emotions).

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.

PSY 525. Psychology of Reading

(3). Principles of learning and readiness, perception, psychological, and physiological aspects of reading. PSY 525 and EDLT 525 are cross-listed courses; students may not receive credit for both. Prerequisites: a reading methods course, a basic psychology of learning course, or permission of the instructor.

PSY 530. 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
Evaluate the empirical evidence for and/or against specific research topics in positive psychology
Summarize methodological and ethical challenges associated with areas of research in positive psychology

Evaluate the potential ethical issues associated with self-help literature related to topics in positive psychology given the actual findings of empirical research
Demonstrate the ability to communicate in writing important information related to specific topics in positive psychology
Prepare informed responses to undergraduate students' reported understanding and analysis of course material

PSY 538. 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 chemical dependency among diverse groups in the United States.

Identify various 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 the 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 as well as "codependency."

Explain major theories about the etiology of substance abuse and dependence.

List and explain hypothesized effects of the substance 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.

Describe the relative advantages and disadvantages of providing substance abuse treatment within the context of the family system.

Identify major sources for empirically-based information about the diagnosis and treatment of individuals and families affected by substance dependence.

Compare and contrast current models of intervention and treatment as well as common therapeutic techniques.

Describe criteria for evaluating the efficacy of a wide variety of interventions for substance abuse and dependence.

Identify their own preconceived ideas or biases as well as their current beliefs about the assessment and treatment of substance dependence.

Demonstrate knowledge of the theoretical and empirical literature regarding a specific topic (e.g., motivational interviewing) within the field of substance abuse and dependence.

Develop an individual prevention, intervention or empirical research proposal grounded in a review of the theoretical and empirical literature on the specific substance abuse-related topic of interest to them.

Summarize their perspective on the etiology, diagnosis and treatment of substance abuse and dependence.

PSY 541. Advanced Cognitive Psychology (5). Advanced theories, methods, and research in cognitive psychology and information processing. Prerequisite: PSY 300. Upon successful completion of this course, the student will be able to: Demonstrate working knowledge of the historical development of

theoretical cognitive psychology and information processing.

Demonstrate mastery of the technical vocabulary specific to the field of cognitive psychology and information processing.

Demonstrate an advanced ability to communicate, in writing and orally, in the language and format of the disciplines of cognitive psychology and information processing.

Demonstrate an advanced ability to read, comprehend and discuss technically sophisticated

experimental procedures, graphical representations of data, data analysis methods, theoretical arguments and interpretations specific to cognitive psychology and information processing.

Demonstrate familiarity and fluency with the research literatures associated with brain structures, consciousness, artificial intelligence, objective and/or memory, knowledge systems, executive functions, attention, emotion, thinking, perception, and problem solving.

Demonstrate an advanced ability to critically evaluate research designs, data collection method and interpretations common to the fields of cognitive psychology and information processing.

Generate and operationalize scientifically important and interesting questions in the area of cognitive psychology and information processing.

Demonstrate advanced skills of synthesizing, organizing, and analyzing the literature on a specific research topic.

Conduct a research study or experimental simulation, analyze the results, and present the findings in APA style.

PSY 542. Evolutionary Psychology (4). Application of the principles of evolution by natural selection to the understanding of human and nonhuman behavior and cognition. PSY 542 and PSY 442 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 544. 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 conducting 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 550. Research in Natural Environments (On reserve as of 9/16/15) (5).

A seminar in describing behavior, developing questions, designing procedures, and analyzing data that address applied and naturalistic research situations. Put on reserve as of 9/16/15. Will go inactive 8/24/18. Prerequisites: PSY 300 and PSY 362 and PSY 363.

Upon successful completion of this course, the student will be able to: Formulating and operationally defining research problems relevant to applied or naturalistic settings Constructing measurement devices or techniques that are feasible in applied or naturalistic settings, appropriate to given populations and research questions, and will yield data in a form that can be analyzed Designing research procedures in a manner that meets standards for reliability and validity

Exploring and analyzing data using discipline-approved strategies Applying nonparametric statistics as appropriate

Interpreting and reporting analyzed data in a way that is consistent with the findings

PSY 551. Applied Behavior

Analysis (4). This course will familiarize students with basic behavior analytic principles and how they are applied with a variety of populations in a wide range of professional settings. Acceptance into ABA/School Psych. programs or by permission.

Upon successful completion of this course, the student will be able to: Accurately describe the history of behavior analysis and the basic tenets of the philosophy of radical behaviorism.

Describe the basic principles of behavior analysis (e.g., reinforcement, punishment, etc.) and demonstrate how to apply these principles in clinical settings with a variety of populations to promote behavior change.

Correctly identify the dimensions of applied behavior analysis and evaluate interventions based on their fulfillment of these dimensions.

Accurately use the scientific language of the field of ABA.

Describe how to effectively plan for and promote generalization and

maintenance of behavior change in applied settings.

PSY 552. Human Growth and Development, Advanced (4).

Examination of the theoretical and empirical literature in the field of human development through the lifespan, including cognitive, social-emotional, spiritual, moral, and physical development. Permission by department. Course will be offered every year (Summer).

Upon successful completion of this course, the student will be able to: Demonstrate the multicultural and pluralistic characteristics within and among diverse groups, nationally and internationally.

Assess the impact of spiritual beliefs on clients' and counselors' worldviews.

Analyze the theories of individual and family development across the life span.

Inspect the theories of learning.

Examine the biological, neurological, and physiological factors that affect human development, functioning, and behavior.

Distinguish the systemic and environmental factors that affect human development, functioning, and behavior.

Assess the effects of crisis, disasters, and trauma on diverse individuals across the life span. Summarize the general framework for understanding differing abilities and strategies for differentiated interventions.

Evaluate ethical and culturally relevant strategies for promoting resilience and optimum development and wellness across the life span.

Formulate developmentally relevant counseling treatment or intervention plans.

PSY 553. Single-Subject Design

(3). This course will address single-subject research design methodology. The focus will be on measurement, experimental evaluation, and interpretation of single-subject data. Acceptance into ABA/School Psy/Exp PSY program or permission. By permission. Prerequisite: PSY 551.

Upon successful completion of this course, the student will be able to:

Articulate the connection between research and practice and the role of the scientist-practitioner.

Describe the role of single-subject research in developing and evaluating interventions and establishing evidence based practice.

Read, evaluate, and critique studies using single-subject research.

Demonstrate mastery of the various types of single subject designs including the procedures for implementation, the logic by which they control for extraneous variables, and how to interpret results from each design.

Analyze baseline and intervention data in order to accurately interpret the outcome of an experiment.

Accurately graph behavioral data for a variety of single- subject designs using a computer program.

PSY 554. Behavioral Assessment and Observation (4). This course will familiarize students with measurement and observational recording techniques used in the context of behavioral interventions. Various behavioral assessment techniques will also be covered (e.g., preference assessments, functional assessments). Acceptance into ABA/School Psych. programs or by permission. Co-requisite: PSY 551.

Upon successful completion of this course, the student will be able to: Describe various methods of direct observation of behavior, when each method should be used, and the strengths and limitations of each observation technique.

Describe reliability and validity issues associated with behavioral assessment and methods to ensure high reliability and validity.

Describe behavioral assessment techniques, conditions under which use of each assessment is appropriate, and the strengths and limitations of each assessment method.

Accurately utilize several methods for identifying potential reinforcers and when each method is appropriate for use.

Correctly describe functional assessment and functional analysis procedures for assessing challenging behavior.

Identify common interventions based on the function of the behavior.

PSY 555. Design and Statistical Analysis for Applied Research (4).

Design and statistical analysis of experimental and quasi-experimental research with an emphasis on applied settings. By permission only. Prior coursework in inferential statistics highly recommended.

Upon successful completion of this course, the student will be able to:

Demonstrate knowledge of experimental and quasi-experimental designs appropriate for applied research questions or hypotheses

Demonstrate knowledge of major threats to the internal and external validity of research designs

Diagram factorial experimental designs commonly used in psychological research

Diagram quasi- experimental designs commonly used in psychological research

Critique the experimental or quasi-experimental methods used in published research studies

Propose an independent, quantitative research project in psychology

Generate a set of data that represent those to be collected for the independent research proposal

Evaluate appropriateness of research design for testing hypotheses specified in the independent research proposal

Justify the applied research design, measurements, and data analyses selected for the independent research proposal

PSY 556. Academic Assessment

(5). Instruction in the use and administration of academic assessment procedures and instruments for school psychologists. Prerequisite: admission to the School Psychology Program.

Upon successful completion of this course, the student will be able to:

Describe current assessment theories and assessment models in school psychology.

Administer, score, and interpret various achievement tests and curriculum based measurement

techniques used by school psychologists.

Critically evaluate unfamiliar tests.

Write evaluation reports for achievement and understand the components of comprehensive school psychology evaluation report.

Discuss important psychometric and theoretical issues pertaining to tests and test data.

PSY 557. Behavioral

Interventions (3). This course will familiarize students with evidence-based interventions based on the principles of behavior analysis. A variety of interventions will be covered as well as methods for working with consumers of applied behavior analysis. Prerequisites: PSY 551 and PSY 554.

Upon successful completion of this course, the student will be able to:

Demonstrate how to implement common behavioral interventions such as contingency contracts, token economies, and group contingencies.

Accurately use strategies of self-management as part of an intervention.

Describe common behavioral interventions used in education such as Precision Teaching and Direct Instruction.

Demonstrate how to use behavioral skills training.

Describe methods to ensure both short- and long-term maintenance of intervention effects using basic behavioral principles of generalization as well as staff training and consultation skills.

PSY 558. Advanced Statistics (5).

Advanced topics in analysis of variance and introduction to multiple regression, factor analysis, and MANOVA. Prerequisite: PSY 555.

PSY 559. Advanced Educational Psychology (4).

Investigation of current research about human learning/behavior in educational settings, including major learning theories, effective school-wide practices to promote academic and social/emotional learning, classroom management, and the impacts of diversity on learning and development.

Upon successful completion of this course, the student will be able to:

Describe major theories of learning and motivation
Apply theories of learning and motivation to classroom learning situations
Summarize current approaches to classroom management in K-12 settings
Evaluate approaches to classroom management and develop resources to address typical classroom management problems in K-12 settings
Evaluate current social/emotional learning curriculum and interventions
Develop resources to use in consultation with schools regarding expansion of social/emotional learning
Describe the impact of diversity on learning and development
PSY 560. Theories and Practice of Counseling (4). Survey of counseling theories with an introduction to counseling skills and practices. Prerequisite: by permission only.
Upon successful completion of this course, the student will be able to:
Justify an orientation to wellness and prevention as desired counseling goals
Summarize counselor characteristics and behaviors that influence the helping process
Summarize essential interviewing and counseling skills
Synthesize established counseling theories into a personal model of counseling
Summarize a general framework for understanding and practicing consultation
Examine crisis intervention and suicide prevention models, including the use of psychological first aid strategies
Evaluate a variety of models and theories related to clinical mental health counseling, including methods, models, and principles of clinical supervision
Appraise current literature that outlines theories, approaches, strategies, and techniques shown to be effective when working with specific populations of clients with mental and emotional disorders
Demonstrate knowledge of biological, cultural, developmental,

and social influences on behavior and mental health
Examine principles of resilience and risk factors and demonstrate skills in multi-tiered delivery of services that respond to crisis and promote learning and mental health across cultures
Demonstrate knowledge of the history and foundations of their profession
PSY 561. Group Counseling (3). Theoretical approaches to group counseling and introductory laboratory/demonstration experience. Prerequisite: PSY 560.
PSY 562. Advanced Principles of Learning (3). Advanced principles of learning theory and behavior analysis in both applied and experimental settings. Prerequisite: PSY 301 or permission of instructor.
Upon successful completion of this course, the student will be able to:
Become familiar with the historical development of theoretical orientations to the study of learning.
Demonstrate mastery of critical terms and concepts from the field of learning and behavior.
Communicate in the language and format of the disciplines of learning and behavior.
Read, comprehend and discuss technically sophisticated experimental procedures, data analysis methods, theoretical arguments and interpretations specific to behavioral psychology.
Critically evaluate research designs, data collection methods and interpretations within the field of learning and behavior.
Generate meaningful criticisms and relevant questions based on recent research articles.
Generate and operationally define scientifically interesting questions in the area of learning and behavior.
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.
Develop the ability to formally present technical information and conceptually sophisticated material in a lecture/discussion format.

Engage in professional, scholarly debate regarding theory, research questions, experimental methods, data analyses and interpretation.
PSY 563. Behavioral Treatment of Autism (4). This course will address issues related to the treatment of autism. The course focuses on evidence-based social, communication, and behavioral skill acquisition interventions based on the principles of applied behavior analysis. Acceptance into ABA program or by permission.
Upon successful completion of this course, the student will be able to:
Describe and define Autism Spectrum Disorder (ASD) and characteristics of individuals with ASD.
Describe and compare current evidence-based interventions for ASD (e.g., discrete trial training, naturalistic teaching, incidental teaching, pivotal response training, functional communication training).
Develop intervention plans and materials (e.g., picture activity schedules).
Explain interventions for ASD across the life-span.
Describe ethical issues in ASD treatment (e.g., fad treatments, vulnerable caregivers).
PSY 564. Intellectual Assessment (5). Administration of intellectual assessment instruments-early childhood through adult. Variables affecting test performance, interpretation, and report writing are emphasized. Prerequisite: admission to the school psychology program.
Upon successful completion of this course, the student will be able to:
Administer and interpret a variety of instruments and procedures for assessing intellectual functioning.
Demonstrate knowledge of psychometric properties, purposes, utility, and acceptability of instruments and procedures for assessing intellectual functioning.
Demonstrate knowledge of the ethical and legal requirements of intellectual assessment.
Integrate assessment information into a comprehensive and professionally written report.
PSY 565. Advanced Animal Behavior (5). Advanced knowledge in the study of animal behavior.
Three-hour lecture, two-hour

laboratory, one-hour independent study per week. PSY 565, BIOL 465 and BIOL 565 are cross-listed courses; students may not receive credit for both.

Upon successful completion of this course, the student will be able to: Integrate knowledge from many other biological disciplines. Further develop their critical thinking skills.

Incorporate their knowledge of animal behavior into their critical thinking skills.

Incorporate their knowledge of animal behavior in their research project.

Interact with students from various background and be encouraged to extensively exchange information with students with different training backgrounds.

PSY 566. Behavioral and Social-Emotional Assessment (5).

Attainment of competencies in the use of behavioral and social-emotional assessment techniques, with a focus on school-age children. Prerequisite: admission to the school psychology program.

Upon successful completion of this course, the student will be able to: Administer and interpret a variety of instruments and procedures for assessing

social/emotional/behavioral functioning.

Demonstrate knowledge of psychometric properties, purposes, utility, and acceptability of instruments and procedures for assessing

social/emotional/behavioral functioning.

Integrate assessment information into a comprehensive and professionally written report.

Recommend appropriate remediation based on assessment findings.

Describe how a problem-solving model can be utilized with students with social/emotional/behavioral needs.

Describe theoretical and conceptual issues underlying social/emotional/behavioral assessment of children and adolescents.

Demonstrate effective writing and speaking methods for

communicating with educators, parents, and fellow professionals.

PSY 567. Counseling and Assessment: Children and Adolescents (4).

This course will provide students with a foundation for working with children and adolescents. This foundation will include knowledge of childhood psychopathology, and models of assessment and treatment unique to working with children, adolescents and their families. Permission by department. Course will be offered every year (Fall).

Prerequisite: PSY 560 and PSY 593A.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of child and adolescent psychopathology, including a synthesis of etiology, diagnosis, treatment, referrals, and prevention.

Analyze various theories of individual and family development and psychopathology and will apply the theoretical material to case studies.

Explore the societal, multicultural, and demographic characteristics that affect development, psychopathology, and treatment.

Analyze the differences between individual, group, and family approaches to assessment and evaluate of children, adolescents, and families in a diverse society.

Examine the ethical issues specific to counseling assessment and intervention for children, adolescents and families.

Analyze the technological strategies and applications within counseling and consultation processes.

PSY 568. Counseling and Assessment Strategies for Adults (4).

Basic counseling assessment and treatment strategies for common problems presented by adult clients. Permission by department. Course will be offered every year (Spring).

Prerequisite: PSY 560. May be taken concurrently.

Upon successful completion of this course, the student will be able to:

Explain and assess the use of assessments including symptom checklists, and personality inventories for diagnostic and intervention planning purposes

Analyze the use of assessment results to diagnose developmental, behavioral, and mental disorders

Identify how age, gender, sexual orientation, ethnicity, language, disability, culture, spirituality, and other factors influence assessment and evaluation of individuals, groups, and specific populations Explain strategies for selecting, administering, and interpreting assessment and evaluation instruments and techniques in counseling

Demonstrate a working knowledge of general principles and methods of case conceptualization, assessment, and/or diagnoses of mental and emotional status

Apply ethical and legal considerations in assessment to work with clients

Evaluate the use of research to improve their counseling effectiveness

PSY 569. Administering School Counseling Programs (Put on reserve as of 9/16/15.) (4).

Strategies for developing, implementing, and evaluating comprehensive school counseling programs; counselor's role in issues such as school climate, school safety, and school crisis information. Put on reserve as of 9/16/15. Will go inactive 8/24/18. Prerequisite: PSY 503.

Upon successful completion of this course, the student will be able to: Describe the national model for school counseling.

Identify and discuss the Washington state essential academic learning requirements (EALRs) and the school counselor's role in promoting student success in schools.

Explain the importance of professional consultation and interdisciplinary collaborative efforts in building effective school counseling programs.

Describe methods of conducting needs assessments in schools.

Describe and develop methods for developing, implementing, and evaluating comprehensive developmental guidance and counseling programs.

Identify specific strategies for addressing the personal/social, academic, and vocational concerns

of students in the P-12 school setting.

Identify strategies for school violence prevention and comprehensive school crisis management.

PSY 571. Counseling for Relationships and Families (4).

Major theoretical approaches to counseling with couples and families. Prerequisites: PSY 560.

PSY 572. 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/child-rearing traditions, common prejudices, and economic values. PSY 472 and PSY 572 are layered courses; students may not receive credit for both. May be repeated up to six 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 socio-political 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 573. Career Development and Counseling (4).

Major theories of career development; career assessment; and career intervention, emphasizing individual, ethnic, and cultural differences. By permission. Upon successful completion of this course, the student will be able to: Describe career development theories and decision-making models

Identify career, avocational, educational, occupational and labor market information resources, visual and print media, computer-based

career information systems, and other electronic career information systems

Describe career development program planning, organization, implementation, administration, and evaluation

Describe interrelationships among and between work, family, and other life roles and factors including the role of diversity and gender in career development

Describe career and educational planning, placement, follow-up and evaluation

Describe and interpret assessment instruments and techniques that are relevant to career planning and decision making

Be familiar with technology-based career development applications and strategies, including computer-assisted career guidance and information systems and appropriate world-wide web sites

Describe career counseling processes, techniques and resources, including those applicable to specific populations

Identify ethical and legal considerations in career assessment and counseling

Describe counselor and consultant characteristics and behaviors that influence helping processes including age, gender, and ethnic differences, verbal and nonverbal behaviors and personal characteristics, orientations, and skills

Describe strategies for selecting, administering, and interpreting assessment and evaluation instruments and techniques in counseling

Identify ethical and legal considerations

PSY 574. Multicultural Counseling and Assessment (4).

Multicultural counseling theories and implications for research, training, and practice. Permission by department. Course will be offered every year (Fall). Prerequisites: admission to PSY Graduate Programs (Mental Health Counseling or School Psychology), or by instructor approval.

Upon successful completion of this course, the student will be able to: Analyze the multicultural and pluralistic characteristics within and

among diverse groups nationally and internationally

Interpret theories and models of multicultural counseling, cultural identity development and social justice advocacy

Develop multicultural counseling competencies

Analyze the impact of heritage, attitudes, beliefs, understandings, and the acculturative experiences on an individual's view of others

Analyze the effects of power and privilege for counselors and clients Evaluate help-seeking behaviors of diverse clients

Recognize the impact of spiritual beliefs on clients' and counselors' worldviews

Develop strategies for identifying and eliminating barriers, prejudices, and processes of intentional and unintentional oppression and discrimination

Develop ethical and culturally relevant strategies for establishing and maintaining in-person and technology-assisted relationships Evaluate the cultural factors relevant to clinical mental health counseling

Analyze their roles in social justice and advocacy in a multicultural society

PSY 575. School-Based

Interventions (4). The understanding of the foundations and procedures for implementation of response to intervention and the delivery of academic and social/behavioral interventions within schools and individual classrooms.

Upon successful completion of this course, the student will be able to: Demonstrate an understanding of the historical foundations, basic principles, and current issues related to RTI.

Identify prevention and intervention strategies for students at-risk for a disability.

Assess and evaluate the effectiveness of curriculum, instruction, and interventions for students at-risk for a disability.

PSY 576. Comparative

Psychology (4). Seminar in the study of behavior and cognition across species. PSY 479 and PSY 576 are layered courses; students

may not receive credit for both. By permission.

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 577. Interviewing Skills for School Psychologists (4). An introduction to interviewing and assessment for school psychologists, with an emphasis on developing skills for interviewing children, parents and other caregivers, and school personnel. Prerequisite: admission to the school psychology program.

Upon successful completion of this course, the student will be able to: Utilize interviews for gathering information for assessment and evaluation purposes in the school setting.

Successfully conduct interviews with children, parents and other caregivers, and various school personnel.

Successfully conduct developmental histories for assessment and evaluation purposes.

Effectively demonstrate various interviewing skills.

Identify important issues that are relevant for developing positive rapport with children and families, including those from diverse backgrounds.

PSY 578. Applied Clinical Neuroscience (4). Neurological and physiological bases of various psychological disorders, brain injury and repair, and pharmacological treatment of clinical disorders.

Acceptance into a Masters program at CWU or permission of instructor.

Upon successful completion of this course, the student will be able to: Identify and explain the function of the major divisions, subdivisions and components of the central nervous system (CNS)

Identify the classes and subtypes of cells of the CNS and explain the function of each

Explain the process of neurotransmission and the role of various neurotransmitters as they relate to psychological/psychiatric disorders

Define and explain factors involved in neuroplasticity

Explain the mode of action and neurological effects of various psychoactive drugs

Describe and apply the various techniques used to study the functioning of the CNS

Explain what is known and unknown about the pathophysiology and treatment of various developmental and adult-onset disorders

Gain an in-depth knowledge of a disorder and be able to synthesize and integrate the research findings and limitations concerning the pathophysiology of the disorder

PSY 579. Psychopharmacology

(4). Common drugs, psychotherapeutic agents and hallucinogens. Behavioral effects and physiological mechanisms. PSY 476 and PSY 579 are equivalent courses; students may not receive credit for both.

PSY 580. Current Issues in Psychology (3). May be repeated up to 6 credits.

PSY 583. Consultation (3). Role of the consultant, stages of consultation, application of consultation principles to school and mental health settings.

PSY 584. Behavior Disorders and Psychopathology (4). Major systems of classification for normal and abnormal child/adult behavior. Prior completion of an undergraduate class in abnormal psychology recommended.

PSY 586. Ethics in Research (4). This course will familiarize students with current and emerging ethical issues faced by professional researchers, emphasizing protecting

human and non-human participants, data management, mentorship, authorship, and other responsibilities to colleagues and society. Course will not have an established scheduling pattern (Winter).

Upon successful completion of this course, the student will be able to: Explain the ethics relevant to the process of collaboration, including conflicts of interest, authorship, data sharing, and ownership.

Describe the relevant ethical issues pertinent to the use of human and non-human subjects in research. Summarize ethical, legal, and risk assessment issues pertaining to informed consent.

Analyze instances of ethical neglect or misconduct in a series of sample case studies.

Discuss accepted ethical conduct relevant to research.

Examine examples of plagiarism. Categorize ways in which falsification can be intentional and unintentional.

Appraise reasons why researchers may be motivated to not publish data.

Assess examples of ways in which faulty data-gathering procedures can occur.

Describe the issues related to data integrity.

Justify the need to store data safely. Summarize problems associated with misleading authorship Evaluate proper publication practices

PSY 587. Ethics in Applied Behavior Analysis (4). This course will familiarize the student with ethical issues commonly encountered by applied behavior analysts. The ethical guidelines created by the Behavior Analysis Certification Board will be covered. Acceptance into ABA program or permission of instructor.

Upon successful completion of this course, the student will be able to: Describe the history that shaped the current state of ethics in the field of ABA.

Articulate each aspect of the ethical code created by the BACB, and describe how these guidelines are applied in real scenarios.

Describe guidelines for the use of aversive procedures in the field of behavior analysis.

Correctly identify the role of the supervisee in an ABA internship. Describe the behavioral interpretation of morality.

PSY 588. Advanced Statistics II (4). Advanced topics in multivariate statistics, including latent variable analyses and the use of statistical software packages in psychological science. Course will not have an established scheduling pattern. Prerequisite: PSY 363.

Upon successful completion of this course, the student will be able to: Differentiate between univariate and multivariate statistical tests Summarize and present to student colleagues one of the multivariate analyses selected for this course. Screen data and evaluate its appropriateness for inclusion in multivariate statistical analyses. Propose, test, and modify (if necessary) a structural equation model.

Propose, test, and interpret latent variable models using statistical software for data science.

Evaluate the decision-making process when latent variable models are tested and modified.

PSY 589. Professional and Ethical Issues (4). Professional, ethical, and legal issues for mental health and school counselors. Prerequisite: PSY 593A.

Upon successful completion of this course, the student will be able to: Describe at least one model of ethical decision making.

Apply a model of ethical decision making to four or more ethical dilemmas in counseling, training, or research.

Report and explain key concepts in Washington State or federal law regarding the professional responsibilities of counselors (e.g., mandatory reporting, record-keeping, informed consent, FERPA, HIPM).

Describe a process for investigating and evaluating human/agency, school and electronic resources for counselors and their clients.

Identify and apply to counseling practice ethics information obtained from published professional literature (e.g., scholarly journals).

Facilitate effectively a discussion with colleagues about professional issues.

PSY 590. Internship (1-10). Individualized, contracted field experience in an applied, professional setting. The contractual agreement involves a student learning plan, appropriate cooperating employment supervision, and faculty coordination. Student must carry malpractice and liability insurance. May be repeated up to 20 credits. Grade will either be S or U.

PSY 591. Workshop (1-6). May be repeated for credit.

PSY 592A. Practicum in School Psychology (1-3). Attainment of knowledge and competence in school psychology practice. Grade will either be S or U. May be repeated up to 3 credits. Permission of department. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: admission to the School Psychology Program.

Upon successful completion of this course, the student will be able to: Describe the components of the K-12 public school district, including personnel, special education policies, learning standards, curriculum, and typical classroom teaching approaches at each grade level.

Describe various programs and classrooms designed for children with special needs.

Apply their knowledge of laws and regulations affecting the operation of special education and the role of the school psychologist to processes and situations observed in the school-based practicum site.

Demonstrate skills in case conceptualization of referrals, design of psychoeducational evaluations, assessment and test administration, test interpretation and eligibility determinations, psychological report writing, and providing feedback.

Evaluate current approaches to the assessment of culturally and linguistically diverse learners and apply best practices in their evaluation decisions.

PSY 592B. Practicum in School Psychology (1-3). Experience providing school psychology services under supervision in the school and psychological services clinic setting. Services include

psychoeducational evaluation, consultation, and intervention. Grade will either be S or U. May be repeated up to 3 credits. Permission of department. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: PSY 592A.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of crisis intervention as it relates to the school system.

Employ collaboration techniques in team meetings.

Be able to synthesize assessment results.

Consult with parents and school staff to support evidence-based learning practices.

Problem-solve and collect data to evaluate the efficacy of interventions.

PSY 593A. Practicum in Counseling I: Interviewing (4).

Interviews, role-playing, observation, and analysis of interview behavior. A maximum of 4 credits may be included on the course of study on the master's degree. Grade will either be S or U. Permission by department. Course will be offered every year (Fall, Winter, Spring). Prerequisite: admission to the Mental Health Counseling or School Psychology Program and permission of department chair. To be taken concurrently with PSY560.

Upon successful completion of this course, the student will be able to: Select and perform effective mental health counseling skills.

Demonstrate professional, ethical, and legal behavior and judgement; as well as adheres to counseling site policies and procedures.

Demonstrate advanced multicultural competencies (knowledge, self-awareness, appreciation, and skills). Assess for risks, as well as for abuse and trauma.

Utilize various specialized services and other referral procedures.

PSY 593B. Practicum in Counseling II: Assessment (4).

Assess client problems, set goals, and plan counseling strategies.

Grade will either be S or U.

Permission by department. Course will be offered every year (Fall, Winter, Spring). Prerequisites: PSY

560 and 593A and permission of department chair.

Upon successful completion of this course, the student will be able to: Select and perform effective mental health counseling skills.

Demonstrate professional, ethical, and legal behavior and judgement; as well as adheres to counseling site policies and procedures.

Demonstrate advanced multicultural competencies (knowledge, self-awareness, appreciation and skills). Assess for risks, as well as for abuse and trauma.

Utilize various specialized services and other referral procedures.

Demonstrate the ability to construct an appropriate psychosocial report and treatment plan.

PSY 593C. Practicum in Counseling III: Advanced (4).

Implementation of counseling strategies with children, adults, couples, or families. Grade will either be S or U. Prerequisites: PSY 593B and permission of department chair.

Upon successful completion of this course, the student will be able to: Continue developing the counseling skills learned in previous courses and practica including the skill of making appropriate referrals.

Practice assessment, goal setting, and treating planning skills with emphasis on adults, children, and families.

Develop case conceptualization abilities.

Recognize the change strategies available for given clients and to be able to select an appropriate approach to working with each client.

Evaluate goal attainment.

Present cases as one would in agency staffing or professional meetings.

Practice A-F above in the context of ethical standards for the counseling profession.

PSY 593D. Practicum in Counseling IV: Advanced (1-4).

Implementation and evaluation of counseling with children, adults, couples, or families. Grade will either be S or U. Prerequisites: PSY 567, PSY 571, and PSY 593C (all may be taken concurrently) and permission of the department chair.

Upon successful completion of this course, the student will be able to: Continue developing the counseling skills learned in previous courses, practica, and internship including the skill of making appropriate referrals.

Practice assessment skills with emphasis on assessment of adults, children, and families.

Develop case conceptualization abilities.

Recognize the change strategies available for given clients and to be able to select an appropriate strategy for working with each client.

Evaluate goal attainment.

Present cases as one would in agency staffing's or professional meetings.

Practice A-F above in the context of ethical standards for the counseling profession.

PSY 595. Graduate Research (1-10). Students using faculty and department resources for thesis development must register for PSY 595, PSY 595CHCI, or PSY 700.

May be repeated. Not more than 10 credits of PSY 595 and PSY 595CHCI combined may be on the master's degree course of study.

Upon successful completion of this course, the student will be able to: Conduct and/or assist with supervised research.

PSY 595CHCI. CHCI Graduate Research (1-10). Directed research or thesis research at the Chimpanzee and Human Communication

Institute. Course fee will be assessed. Not more than 10 credits of PSY 595 and PSY 595CHCI combined may be included on the master's degree course of study.

May be repeated for credit.

PSY 596. Individual Study (1-6). May be repeated for credit.

PSY 598. Special Topics (1-5).

PSY 599. Seminar (1-5). May be repeated for credit.

PSY 651. Advanced Applied Behavior Analysis (3). This course will familiarize students with advanced topics in the field of applied behavior analysis, particularly in the areas of verbal behavior and derived stimulus relations. Prerequisites: PSY 551 and PSY 554.

Upon successful completion of this course, the student will be able to:

Describe methods for conducting assessments of verbal behavior repertoires.

Describe how to implement a variety of interventions designed to ameliorate deficiencies in verbal behavior repertoires.

Articulate the behavioral interpretation of private events and the role verbal behavior plays in learning about private events.

Describe the concepts underlying derived stimulus relations and how to use derived stimulus relations to promote generative learning.

Accurately describe the philosophical tenets of radical behaviorism.

PSY 681A. Mental Health Internship I: Group (3).

Supervised counseling of child or adult groups. Some individual internship hours may also be obtained. Grade will either be S or U. Prerequisites: PSY 561, PSY 593C and permission of department chair.

Upon successful completion of this course, the student will be able to: Complete an internship emphasizing group counseling skills. At least 20 hours of group counseling experience must be logged. Other hours accrued will count toward the student's 900-hour mental health counseling internship.

Complete paperwork in a timely manner and document their internship hours.

Present cases in a group format. Demonstrate adequate knowledge and skills related to individual, group and family counseling.

Demonstrate skills in referrals, measuring client outcomes, developing counseling plans, multicultural competencies mental health law, resolving ethical problems, and professionalism.

PSY 681B. Mental Health Counseling Internship II: Advanced (1-12).

Full-time internship placement in a mental health agency or psychiatric hospital. Grade will either be S or U. Prerequisites: PSY 584 and PSY 681A.

Upon successful completion of this course, the student will be able to: Complete a school counseling internship. Students must complete

900 hours (combined from PSY 681A and 681B).

Complete paperwork in a timely manner and document their internship hours.

Present cases in a group format. Demonstrate adequate knowledge and skills related to individual, group and family counseling. Demonstrate skills in referrals, measuring client outcomes, developing counseling plans, multicultural competencies, mental health law, resolving ethical problems, and professionalism.

PSY 682A. School Counseling Internship I: Group (Put on reserve as of 9/16/15.) (3).

Supervised counseling of child or adult groups. Grade will either be S or U. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

Prerequisites: PSY 561, PSY 593B, and permission of department chair.

Upon successful completion of this course, the student will be able to: Complete an internship emphasizing group counseling skills. At least 30 hours of group counseling experience must be logged. Other hours accrued will count toward the student's 600 hour school counseling internship.

Complete paperwork in a timely manner and document their internship hours.

PSY 682B. School Counseling Internship II: Advanced (Put on Reserve 9/16/16) (1-12).

Placement in the public schools (K-12). Grade will either be S or U. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

Prerequisite: PSY 593C and PSY 682A.

Upon successful completion of this course, the student will be able to:

Complete a school counseling internship. Students must complete 600 hours (combined from PSY 682A and 682B).

Complete paperwork in a timely manner and document their internship hours.

Present cases in a group format. Demonstrate knowledge and create a competent research foundation regarding Responsive Services, School Guidance Curriculum, System Support, Individual Student Planning, and Research.

PSY 683. School Psychology

Internship (5-15). A full-time placement in school district (K-12). May be repeated for credit. Grade will either be S or U. Prerequisite: permission of department chair.

PSY 684. Field Experiences in Applied Experimental Psychology

(1-6). Short term, supervised (non-internship) field experiences in professional settings in experimental psychology. May include observational and professional activities directly supervised by faculty and site supervisors. No more than 6 credits may be on the master's degree course of study. May be repeated for credit. Grade will either be S or U. Prerequisite: admission to graduate study in psychology, and permission of the program director. Upon successful completion of this course, the student will be able to: Demonstrate knowledge and familiarity with the variety of clients, settings and behaviors where professional psychologists practice.

Demonstrate knowledge and familiarity with relationship building skills necessary for practicing psychologists to use with other professionals.

Demonstrate competence using pretreatment standardized/normed assessment skills appropriate for the specific field. Assessments may be mock assessments conducted in the field or using video records.

Examples: functional behavioral assessments for behavior problems, neurological assessments for TBI patients, sample discrete trials, observational field notes, sample ADOS assessments for autism, data collection, animal behavior/husbandry field notes, counseling intake questionnaires, etc.

Demonstrate knowledge of familiarity with pre-treatment individualized assessments.

Assessments may be mock assessments conducted in the field. Examples: client interviews, teacher or staff interviews, significant other interviews, case history summaries, educational record reviews, etc.

Demonstrate ability to practice basic/elementary treatment skills under direction and concurrent

supervision of the site supervisor. Examples: discrete trials training, group therapy supervision, curriculum based assessments, etc. Demonstrate knowledge and familiarity with professional collaboration venues and techniques, including teacher/consultant meetings, IEP meetings, lab staff or zoo staff meetings; professional workshops, etc. Demonstrate the ability to link field experiences to course content in area of study.

PSY 689. Capstone in Mental Health Counseling (4).

An end-of-program course. Portfolio review and defense, career planning, and student learning evaluation activities. Grade will either be S or U. Permission by department. Course will be offered every year (Spring). Prerequisite: students must be admitted to the clinical mental health counseling program and in their final year.

Upon successful completion of this course, the student will be able to: Assemble documents representing skills learned as a psychology major. Assess accomplishments within educational experiences in mental health counseling.

Reflect and evaluate knowledge, skills, and practice developed as a student in the mental health counseling program.

Reflect and evaluate knowledge, skills, and practice of self-care within the mental health counseling program and as a future professional counselor.

PSY 696. Individual Study (1-6).

May be repeated if subject is different.

PSY 698. Special Topics (1-6).

May be repeated if subject is different.

PSY 699. Seminar (1-6). May be repeated if subject is different.

PSY 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the graduate thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

PSY 700A. Master's Thesis in Applied Behavior Analysis (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

PSY 700E. Master's Thesis in Experimental Psychology (1-6). Designed to credit and record supervised study for the graduate thesis in the Masters in Experimental Psychology program. Permission of student's thesis chair. May be repeated up to 6 credits. Grade will be either S or U.

PSY 700M. Master's Thesis/Project in Mental Health Counseling (1-6). Designed to credit and record supervised study for the graduate thesis or project in the Masters in Mental Health Counseling program. Permission of student's thesis chair. May be repeated up to 6 credits. Grade will be either S or U.

PSY 700S. Master's Thesis/Project in School Psychology (1-6). Designed to credit and record supervised study for the graduate thesis or project in the School Psychology program. Permission of student's thesis chair. May be repeated up to 6 credits.

PUBH 501. Foundational Readings and Theories of Public Health (3). This graduate level course provides a foundational overview of the seminal literature and theoretical frameworks of the public health discipline. Course will be offered on even numbered years (Fall).

Upon successful completion of this course, the student will be able to:
Engage with seminal readings to understand study designs, theories, emerging trends, and public health core concepts
Explain public health theoretical constructs, models, and frameworks that underlie population health strategies

Apply public health theory to a proposed intervention or population health strategy

Compare and contrast different study designs, methodologies,

theoretical frameworks, and public health outcomes from a selection of peer-reviewed literature

PUBH 513. 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 524. Biological and Environmental Determinants of Health (3). Biological and environmental factors play a significant role in the health of individuals and communities. This course covers identification, prevention, and response to biological and environmental factors in public health. Course will be offered every year (Winter, Summer).

Upon successful completion of this course, the student will be able to:
Identify and describe the biological and environmental determinants of health.

Identify and describe the epidemiological triangle as it related to biological and environmental factors.

Synthesize the scientific evidence regarding biological and environmental determinants of health.

Apply the steps in the risk-assessment and risk-management/prevention for environmental and biological determinants of health.

Evaluate the social, health, and economic impacts of biological and environmental agents.

PUBH 525. Social and Behavioral Determinants of Health (3). This graduate level course focuses on the identification and application of key determinants of individual and population health that are related to social and behavioral factors such as socioeconomic status, income level, cultural and linguistic factors, health beliefs, lifestyle choices, among others. Course will be offered on even numbered years (Winter).

Upon successful completion of this course, the student will be able to:
Compare theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.

Summarize the causes of social and behavioral factors that affect health of individuals and populations.
Articulate individual, organizational and community concerns, assets resources and deficits for social and behavioral science interventions.
Examine the merits of social and behavioral science interventions and policies.

Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions.

Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies.

PUBH 550. Advanced Health Policy and Systems (3). Analysis of the building blocks of U.S. health systems, including leadership/governance, health care financing, workforce, service delivery, drugs/devices and technology, and health information/research. Survey of major health policies/programs at federal/state level impacting population health. Course will be offered on on odd numbered years (Fall).

Upon successful completion of this course, the student will be able to:
Identify and compare the structure of the U.S. health system and its major components using the WHO Health Systems Framework
Summarize major health policy decisions in U.S. history and

conduct in-depth analysis of their impact on current population health
Conduct in-depth policy analyses related to public health policy decisions and interventions
Assemble data sources to inform public health policy decisions
Assess evidence-informed policy recommendations using existing frameworks to support population health improvement

PUBH 571. Program Planning (4).

Health program planning including needs assessment and goal setting. PUBH 471 and PUBH 571 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: 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.

Graduate students will be able to summarize best practices used in public health program planning

Graduate students will be able to evaluate public health program plans

PUBH 572. Program Implementation and Evaluation

(4). Implementation and evaluation of programs and other strategies designed to improve population health outcomes. PUBH 472 and PUBH 572 are layered courses.

Students may not receive credit for both. Course will be offered every year (Winter). Prerequisite: PUBH 571.

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 campus- or 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

Synthesize key findings from their intervention evaluation and assemble them for academic and professional audiences

Select and justify an appropriate evaluation design for a proposed public health intervention

PUBH 580. Grant Seeking and Administration in Public Health

(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 (Winter).

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.

Demonstrate an understanding of grant administration.

Score peer grant proposals using standard field (NIH, APHA, etc) criterion.

Present and defend a funding proposal to a panel of peers.

PUBH 581. Advanced Epidemiology (5).

This course covers descriptive and analytical

epidemiological application to social and health sciences with an emphasis on population level health. Course will be offered on even numbered years (Winter).

Upon successful completion of this course, the student will be able to:

Describe the scientific methods, theories, and history underpinning the field of epidemiology.

Select and justify the use of appropriate measures (rates, ratios, etc.) to describe morbidity and mortality and determinants of health.

Engage analytic techniques including descriptive, graphical, and analytical analyses of data related to a health issue.

Apply epidemiological data to inform evidence based public health practice.

Critically appraise epidemiologic research, including research design and methods, causal relationships, error, bias, and confounding factors. **PUBH 596. Individual Study (1-6).** May be repeated if subject is different.

PUBH 598. Special Topics (1-6). May be repeated if subject is different.

PUBH 599. Seminar (1-5). May be repeated if subject is different.

PUBH 620. Study Design for Public Health (3). The first course in a series on traditional methodologies utilized in public health investigation, with an emphasis on articulating public health research questions, identifying data sets, and justifying study designs for public health inquiry. Course will be offered on odd numbered years (Spring).

Upon successful completion of this course, the student will be able to: Differentiate between different types of study designs.

Identify appropriate measures / data collection tools for study design.

Compare limitations, bias, and disadvantages across various study designs for hypothesis testing.

Evaluate the application of non-experimental research designs.

Evaluate the application of experimental research designs.

Apply study designs appropriate for a range of research questions.

Formulate strategies to preserve ethical principles for human subjects research.

Propose an appropriate study design to investigate a research question/test hypothesis.

PUBH 621. Advanced Quantitative Research Methods for Health (4). Provide students with an understanding of quantitative designs and research methods to answer population health questions. Applied statistical skills will be emphasized, including the critical appraisal and use of quantitative data and evidence. Course will be offered on even numbered years (Winter). Co- or prerequisite: PUBH 620. Upon successful completion of this course, the student will be able to: Describe the roles biostatistics serves in the discipline of public health.

Compare the basic concepts of probability, random variation and commonly used statistical probability distributions. Select from preferred methodological alternatives to commonly used statistical methods when assumptions are not met. Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.

Apply descriptive techniques commonly used to summarize public health data.

Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.

Evaluate basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation.

Appraise the results of statistical analyses found in public health studies.

Communicate quantitative research findings to both public health professionals and educated lay audiences.

PUBH 622. Qualitative Research Methods for Health (4). This course provides graduate level training in techniques for designing, conducting, and analyzing

qualitative research studies relevant to public health and other related health sciences. Includes opportunities for practical, applied qualitative research activities.

Course will be offered on odd numbered years (Spring, Summer). Upon successful completion of this course, the student will be able to: Identify different research approaches and methodologies used in qualitative research studies Articulate the importance of a culture of ethical research practices in community and academic settings Develop, analyze, and frame qualitative research questions Propose a qualitative design and methodology for public health field research

Evaluate the strengths and weaknesses of selected qualitative traditions including data generation and analysis.

PUBH 651. Public Health Leadership and Ethics (3). This course will provide graduate level training in leadership strategies specific to Public Health, and developing skills as an ethical leader. Case studies, readings, and small group conversations will be utilized in this intensive course.

Course will be offered on odd numbered years (Spring). Upon successful completion of this course, the student will be able to: Identify different leadership theories and styles that are conducive to Public Health work.

Assess individual strengths and opportunities as both a leader and manager.

Develop, analyze, and frame specific ethical challenges related to current events in Public Health Compare and contrast codes of ethic for various professions including Public Health

Evaluate ethical challenges coupled with leadership solutions to prevention and intervention

PUBH 675. Portfolio Development Seminar (2). This course will assist students in the preparation of their cumulative experience portfolio, including their graduate thesis or project plans. Students will complete artifact collection, demonstrating mastery of a set of core competencies toward the MPH degree and discuss with a faculty

advisor their plans for completion of the thesis or project capstone requirement. Permission of department. Course will be offered every year (Fall, Summer).

Upon successful completion of this course, the student will be able to: Assemble artifacts identified with core public health competencies. Summarize their own learning achievements through reflection and self-assessment

Propose lines of independent research or project inquiry that fulfill public health needs Evaluate and provide peer feedback on proposals for thesis/project questions

PUBH 692. Field Experience in Public Health (1-6). Practicum experiences include significant field-based or research projects, community outreach and education, teaching or other related activities under the guidance of the student's academic advisor. May be repeated up to 6 credits. Grade will either be S or U. Permission of department. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to: Apply interprofessional communication and teamwork skills with a variety of stakeholders Summarize public health concepts relevant to his or her fieldwork experience

Appraise public health decisions made in field settings (such as clinics, government agencies, community organizations, policy/advocacy groups and others)

PUBH 696. Individual Study (1-6). May be repeated if subject is different.

PUBH 698. Special Topics (1-6). May be repeated if subject is different.

PUBH 699. Seminar (1-6). May be repeated if subject is different.

PUBH 700. Graduate Capstone in Public Health (1-6). Students will complete the graduate capstone requirement toward a research thesis/project under the supervision of the student's approved graduate committee. Permission of department. May be repeated up to 6 credits. Grade will either be S or U. Course will be offered every year

(Fall, Winter, Spring, Summer).

Prerequisite: PUBH 675.

Upon successful completion of this course, the student will be able to: Define an original research or field based line of inquiry in public health.

Perform field standard methods of data compilation, collection, and analysis to answer population health challenges.

Synthesize the literature and evidence base for their respective thesis/project content area in public health.

Articulate and defend the discipline-specific contributions generated by their thesis research or field project.

Interpret the implications of their thesis or project findings on public health programming, policy, or other interventions.

REM 501. Introduction to Resource Management (4). The nature of resources; traditional systems of resource management; problems associated with resource "ownership"; principles, and practice of management related to local, regional, and global resources.

REM 502. Policy and Law in Resource Management (5). The scope and formation of U.S. resource policy, history of resource-related policies and legislation, current legislation and policies, future directions in resource policy. Upon successful completion of this course, the student will be able to: Discuss the historical context and evolution of environmental and resource policy in the U.S. Describe the process of policy formation, implementation, and assessment

Examine the form of the U.S. political and legal system in the context of cultural and natural resource management

Differentiate between natural resource conservation policy and policies designed to prevent and mitigate resource degradation

Differentiate key natural and cultural resource management laws and policies, including those stemming from the National Environmental Policy Act and National Historic Preservation Act

REM 505. Introduction to Graduate Research (3). Discussion

and application of research problem definition, research methods, literature review, and funding sources as applied to a research proposal. By permission.

Upon successful completion of this course, the student will be able to: Identify your research niche Develop a "doable" thesis topic within the context of our program and scientific resource management Evaluate the research of others Identify possible funding sources Improve your research and writing skills

Write a clean, coherent, thorough, "fundable", and doable research proposal

REM 506. Resource Management Colloquium (1). Seminar series for REM students to both observe and present relevant research. All REM students must take this class twice: once as an attendee and, once as an attendee who must also present their research proposal. May be repeated for credit. Grade will either be S or U.

Upon successful completion of this course, the student will be able to: Expose students to a variety of different REM topics

Expose students to proposal and thesis defenses

Learn presentation skills when observing and presenting their research proposals and thesis defenses

Engage speakers in question and answer discussions after formal presentations

REM 522. Resource Analysis (5). Problems of resource allocation; techniques of resource determination, cost-benefit analysis, principles of systems analysis, politics of resource analysis, understanding the "planner" and the "developer." Prerequisite: ECON 462.

Upon successful completion of this course, the student will be able to: Discuss and successfully employ concepts and procedures for designing public lands and wildlife management policies, plans and projects.

Develop and specify an analytical structure and associated procedure that facilitate making objective choices about how to use (or not

use) cultural and/or natural resources

Use an analytical structure and associated procedure to develop and produce a defensible and practically useful policy recommendation for making a "real world" decision.

REM 540. 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. REM 540, ANTH 440, and GEOG 440 are cross-listed courses; student may not receive credit for more than one. 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 ability to read process and communicate advanced concepts from in Anthropology, Geography and Resource Management.

Demonstrate general knowledge of contemporary issues relevant to cultural ecology (e.g. land degradation, land tenure, sustainable development).

Demonstrate sophisticated knowledge of one cultural ecology issue of the student's choice.

REM 562. Issues and Conflicts in Resource Management (3). Current issues and problems in resource management.

Upon successful completion of this course, the student will be able to:

Discuss and defend the use of conflict management skills in resource management

Identify and use the principles of standard conflict models

Analyze a specific conflict situation, identifying all parties, their views and their roles

Prepare a concise, accurate assessment of a given conflict situation or issue

Prepare a concise, but thorough, case study of an ongoing conflict

Improve research, writing and presentation skills

REM 590. Internship (1-8). Supervised off-campus practical experience in accordance with a written agreement between student, faculty, and cooperating agency. May be repeated for credit. Grade will either be S or U. Prerequisite: approval of program coordinator.

REM 593. Resource Management Field Experience (1-8). Off-campus experience in the field study of resource management. May be repeated for credit. Prerequisite: permission of instructor and program director.

REM 595. Graduate Research (1-10). May be repeated for credit.

REM 596. Individual Study (1-6). May be repeated if subject is different.

REM 598. Special Topics (1-5). May be repeated for credit.

REM 599. Seminar (1-3). May be repeated for credit.

REM 696. Individual Study (1-6). May be repeated if subject is different.

REM 698. Special Topics (1-6). May be repeated if subject is different.

REM 699. Seminar (1-6). May be repeated if subject is different.

REM 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

RTE 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

RTE 505. Hospitality Catering (3). Basics of off-premise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RTE 405, and RTE 505 are layered 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

RTE 591. Workshop (1-6). May be repeated for credit.

RTE 596. Individual Study (1-6). May be repeated for credit.

RTE 598. Special Topics (1-6). May be repeated under different titles.

RTE 599. Seminar (1-5). May be repeated for credit under different titles.

RTE 696. Individual Study (1-6). May be repeated if subject is different.

RTE 698. Special Topics (1-6). May be repeated if subject is different.

RTE 699. Seminar (1-6). May be repeated if subject is different.

SCED 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. May be repeated for credit. Grade will be XG. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.

SCED 511. 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.

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)
 Develop and practice ways to effectively communicate thesis research to community stakeholders

SCED 515. STEM Outreach Field Experience (1-2). Applied field experience in communicating and teaching science, technology, engineering, and mathematics (STEM) concepts to children. Involves planning and conducting demonstrations, lessons, and activities. Outreach outside of class time is required. May be repeated up to 4 credits.

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.
 Identify and apply best practices for informal science education and outreach.

SCED 542. Teaching Science at Community Colleges (3). Course topics will include the role community colleges play in the educational system, an introduction to teaching and learning philosophy appropriate for teaching science at the community college, and the practical application of learned material in an authentic classroom. Formerly CHEM 542; students may not receive credit for both.

Upon successful completion of this course, the student will be able to:
 Compare and contrast community college mission, goals, and learning environments with other levels of schooling and types of institutions (e.g. high school, regional comprehensive, private 4-yr).
 Demonstrate appropriate pacing, content level, and types of

assignments, teaching strategies, and assessments for community college science courses.

Articulate a research-based teaching philosophy that informs a teaching plan.

SCED 596. Individual Study (1-6). May be repeated if subject is different.

SCED 598. Special Topics (1-5).

SCED 599. Seminar (1-5). May be repeated if subject is different.

SCED 696. Individual Study (1-6). May be repeated if subject is different.

SCED 698. Special Topics (1-6). May be repeated if subject is different.

SCED 699. Seminar (1-6). May be repeated if subject is different.

SCM 510. Supply Chain Management Principles and Practices (5). Adoption of a supply chain orientation toward business management which emphasizes inter-functional and inter-firm relationships to improve coordination of operations and performance of participants in various types of supply chains. Prerequisite: admission to the Master of Professional Accountancy Program.

Upon successful completion of this course, the student will be able to: Demonstrate an understanding of the role of employing a cross functional, cross organizational (process) approach to business planning and execution. Demonstrate the ability to employ conceptual frameworks associated with business strategic fit, supplier relationship management, strategic sourcing, customer relationship management, manufacturing and services process structures, logistics operations/service tradeoffs to analyze current or propose alternative operational strategies. Demonstrate the ability to apply various techniques for demand forecasting, general production planning and inventory management.

Demonstrate an awareness of the grounding in the development of Six Sigma quality management techniques. Be able to apply basic analytical techniques used to improve product and service quality.

Explain the drivers of lean management in manufacturing and service environments.

Conduct total cost analyses involving the purchasing of products and services.

SCM 596. Individual Study (1-6). May be repeated if subject is different.

SCM 598. Special Topics (1-6). May be repeated if subject is different.

SCM 599. Seminar (1-5). May be repeated if subject is different.

SCM 696. Individual Study (1-6). May be repeated if subject is different.

SCM 698. Special Topics (1-6). May be repeated if subject is different.

SCM 699. Seminar (1-6). May be repeated if subject is different.

SHM 700. Master's Thesis, Project Study, and/or Examination (1-6). An applied project experience that integrates the principles, theories, and concepts of the student's career concentration with problems or questions relevant to the environmental health and safety (EHS) management field. May be repeated up to 6 credits. Grade will either be S or U. Permission of department. Course will be offered on an odd numbered years (Summer). Prerequisite: SHM 582.

Upon successful completion of this course, the student will be able to: Identify a capstone project topic and objectives that are relevant to and have practical application to the student's career concentration. Arrange and conduct the capstone project. Revise and complete the literature review for the capstone project. Construct the written capstone project document and develop the project presentation. Defend the capstone project presentation using a web conferencing application.

SOC 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through

the university. May be repeated for credit.

SOC 501. Social Science Research Methods (5). Principles of scientific research methodology applied to human behavior. Prerequisite: graduate standing or permission of instructor.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of the epistemology and logic of social scientific knowledge. Classify the various types of social scientific data. Identify the independent and dependent variables of published research. Explain the various ways that reliability and validity are assessed in social science. Discuss the advantages and disadvantages of various research methodologies for a topic of the student's choosing.

SOC 564. Statistical Analysis of Social Data I (Put on reserve 9/16/17) (2). Elementary and advanced descriptive statistics for the social sciences. Topics include graphical displays of data, probability, measures of central tendency and variability, and measures of association between two or more variables. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

Upon successful completion of this course, the student will be able to: Conduct, analyze and summarize graphical displays of data. Calculate and summarize the central tendency and variability of social data. Conduct and summarize analyses measuring the strength of association between two or more variables.

SOC 565. Statistical Analysis of Social Data II (Put on Reserve 9/16/16) (2). Elementary and advanced inferential statistics for the social sciences. Topics include statistical inference theory and hypothesis testing of sample means, proportions, correlation and regression coefficients, and other measures of association. (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 logic and theory underlying statistical inference. Understand and conduct basic hypothesis testing of sample means and proportions. Understand and conduct hypothesis testing of sample regression coefficients, correlation coefficients, and other measures of association.

SOC 566. Organization Research and Assessment (5). Principles of scientific research, methodology, and their application to the analysis of organizations. Prerequisite: by permission. Upon successful completion of this course, the student will be able to: Apply concepts of organization structure in analyses of organization outcomes. Apply concepts of organization processes in analyses of organization outcomes. Demonstrate knowledge and familiarity with classical theory of organization structure, relations, and outcomes. Apply concepts of organization environment in analyses of organization outcomes. Apply theories of the organization environment in analyses of organization outcomes.

SOC 596. Individual Study (1-6). By permission. May be repeated for credit.

SOC 598. Special Topics (1-6). May be repeated for credit.

SOC 599. Seminar (1-5). May be repeated for credit.

SOC 696. Individual Study (1-6). May be repeated if subject is different.

SOC 698. Special Topics (1-6). May be repeated if subject is different.

SOC 699. Seminar (1-6). May be repeated if subject is different.

SPAN 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

SPAN 596. Individual Study (1-6). May be repeated if subject is different.

SPAN 598. Special Topics (1-6). May be repeated if subject is different.

SPAN 599. Seminar (1-5). May be repeated if subject is different.

SPAN 696. Individual Study (1-6). May be repeated if subject is different.

SPAN 698. Special Topics (1-6). May be repeated if subject is different.

SPAN 699. Seminar (1-6). May be repeated if subject is different.

TH 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

TH 501. Introduction to Graduate Studies (1). Introduction to current theatre research topics and library resources. Prerequisite: admission to the MA program. Upon successful completion of this course, the student will be able to: Have an overview of correct MLA style for research papers; will be familiar with the major resources in the CWU library and on line; and will demonstrate proficiency in electronic research procedure. Become familiar with research methods and procedures.

TH 502. Introduction to the Creative Project (1). Research and preparation for directing the culminating Creative Project: production of an approved play at the candidate's home venue. Review of MLA and documentation format and content. Grade will either be S or U. Prerequisite: TH 501. All coursework (except TH 700) in course of study must be completed. Upon successful completion of this course, the student will be able to: Demonstrate familiarity and competency with MLA format. Critically comment on the strengths and weakness of their own work as well as the work of their peers. Demonstrate an understanding of the process, format, and content required for creation of supporting documentation for the Creative Project.

Demonstrate an understanding of the deadlines and scheduling associated with producing the Creative Project.

TH 503. Survey of Theatre History and Literature (Put on Reserve 9/16/16) (4). Study of important periods of theatre history from beginnings to the present and analysis of selected plays from each period. (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: Correctly identify the chronological progression of the growth of Western Theatre and compare the contributions of great artists to this growth. Identify and define the individual characteristics important to each major period of theatre history. Practice the process of play analysis and discuss and evaluate ten to fifteen great plays selected from the influential periods of theatre history. Classify and contextualize theatrical literature in terms of genre.

TH 505. Research Methods (2). The procedure, techniques, and application of research methods in theatre. Prerequisite: admittance to the Theatre Master's program. Upon successful completion of this course, the student will be able to: Identify primary document sources and describe the methods used in their research. Lead seminar style discussions. Analyze and evaluate both past and current trends in theatre studies scholarship. Create and present a research thesis model for theatre studies that would be suitable for a defensible M.A. thesis.

TH 510. Theatre Literature, Theory and Criticism I (4). Explore critical analysis from ancients to modernism and its application to theatre/dramatic texts. Prerequisite: admittance to the Theatre Master's program. Upon successful completion of this course, the student will be able to: Explore the application of dramatic criticism and theory to theatre, dramatic structure and performance practice. Utilize dramatic criticism and theory and employ techniques of

analyzing dramatic texts through the use of research and higher level analytical thinking and writing. Demonstrate competency in procedures of applying dramatic criticism and theory to select dramatic texts.

Analyze and evaluate examples of dramatic criticism and theory and its effect on dramatic structure up to modernism and across a wide range of time periods and cultures.

TH 511. Theatre Literature, Theory and Criticism II (4).

Explore critical analysis from modernism to the present and its application to theatre/dramatic texts.

Prerequisite: admission to MA program or permission of instructor. Upon successful completion of this course, the student will be able to:

Read, study and analyze plays, scholarly criticism and theory and be able to find similarities, differences, themes, essential ideas through application of various critical schools of thought.

Develop an informed and original response to a play that synthesizes research.

Practice the research, analysis and writing skills in preparation for future thesis course work.

Develop an opinion that can be substantiated through citation of theories and ideas.

Expand student thinking to incorporate new paradigms of thinking.

Find the essential meaning from complex and dense scholarly writing by culling through reading and noting key ideas.

TH 512. Studies in Gender Issues (5). The study of theory and practices of gender in drama, films, and contemporary performance culture. May be repeated for credit as topics change.

Upon successful completion of this course, the student will be able to: Lead seminar style discussions.

Analyze and evaluate primary texts relating to theory and practices of gender in drama, films, and contemporary performance culture.

Analyze and evaluate current scholarship relating to theory and practices of gender in drama films, and contemporary performance culture.

Create and present a conference-length paper reflecting a research topic relating to theory and practices of gender in drama, films and contemporary performance culture.

TH 513. Studies in World Drama (5). The study of theory and practices of post-modern world drama. May be repeated for credit as topics change.

Upon successful completion of this course, the student will be able to: Lead seminar style discussions.

Analyze and evaluate primary texts relating to theory and practices of post-modern world drama.

Analyze and evaluate current scholarship relating to theory and practices of post-modern world drama.

Create and present a conference-length paper reflecting a research topic relating to theory and practices of post-modern world drama.

TH 514. Studies in Asian Drama (On reserve as of 9/16/15) (5). The study of theory and practices of traditional drama, puppetry, and dance-drama forms of Asia. May be repeated for credit as topics change. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

TH 515. Studies in Ethnic Drama (On reserve as of 9/16/15) (5). The study of theory and practices of multicultural plays by people of color and other ethnic groups. May be repeated for credit as topics change. 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:

Analyze and evaluate primary texts relating to theory and practices of multi-cultural plays by people of color and other ethnic groups

Analyze and evaluate current scholarship relating to theory and practices of multi-cultural plays by people of color and other ethnic groups

Create and present a conference-length paper reflecting a research topic relating to theory and practices of multi-cultural plays by people of color and other ethnic groups

Lead seminar style discussions
TH 518. Studies in Early Modern Drama (5). The study of theory and practices of drama from the Renaissance, 17th and 18th century in Europe, Asia, and/or the

Americas. May be repeated for credit as topics change.

Upon successful completion of this course, the student will be able to: Analyze and evaluate primary texts relating to theory and practices of drama from the Renaissance, seventeenth century, or eighteenth century in Europe, Asia, and/or the Americas.

Analyze and evaluate current scholarship relating to theory and practices of drama from the Renaissance, seventeenth century, or eighteenth century in Europe, Asia, and/or the Americas.

Create and present a conference-length paper reflecting a research topic relating to theory and practices of drama from the Renaissance, seventeenth century, or eighteenth century in Europe, Asia, and/or the Americas.

Lead seminar style discussions.

TH 519. Studies in Drama and the State (Put on Reserve 9/16/16) (5). The study of theory and practices of drama of state-controlled censorship and/or sponsorship, i.e., drama under the French Revolution, drama under the Third Reich, or NEA-sponsored performance. May be repeated for credit as topics change. (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: Analyze and evaluate primary texts relating to theory and practices of drama of state-controlled censorship and/or sponsorship---for example, Drama under the French Revolution, or Drama under the Third Reich, or NBA-sponsored performance.

Analyze and evaluate current scholarship relating to theory and practices of drama of state-controlled censorship and/or sponsorship---for example, Drama under the French Revolution, or Drama under the Third Reich, or NBA-sponsored performance.

Create and present a conference-length paper reflecting a research topic relating to theory and practices of drama of state-controlled censorship and/or sponsorship---for example, Drama under the French Revolution, or Drama under the Third Reich, or NBA-sponsored performance.

Lead seminar style discussions.

TH 523. Introduction to Theatre Pedagogy (3).

An introduction to the pedagogical theories and practices in theatre. Focus will be placed on both the study and practice of teaching strategies. Upon successful completion of this course, the student will be able to: Identify what calls them to teach, which models of teaching they seek to emulate, and potential deficiencies in their pedagogical skill set.

Prepare lessons based on the reading for class.

Evaluate the work of their peers in the lesson plans the peer creates.

Create a rubric to assist the class and teacher in evaluating his or her work.

TH 525. Theatre History

Ancients-Renaissance (3). The study of theatrical history from the Ancients through the Renaissance.

Prerequisite: admittance to the Theatre Master's program.

Upon successful completion of this course, the student will be able to:

Analyze and evaluate primary texts relating to theatrical history from the Ancients through the Renaissance

Analyze and evaluate current scholarship of theatrical history from the Ancients through the Renaissance

Create and present a conference-length paper reflecting a research topic relating to theatrical history from the Ancients through the Renaissance

Lead seminar style discussions

TH 526. Theatre History

Renaissance-Modernism (3). The study of theatrical history from the Renaissance through Modernism.

Prerequisite: admittance to the Theatre Master's program.

Upon successful completion of this course, the student will be able to:

Analyze and evaluate primary texts relating to theatrical history from the Renaissance through Modernism periods

Analyze and evaluate current scholarship of theatrical history from the Renaissance through Modernism periods

Create and present a conference length paper reflecting a research topic relating to theatrical history

from the Renaissance through Modernism periods

Lead seminar style discussions

TH 527. Theatre History

Modernism-Contemporary (3). The study of theatrical history from Modernism to contemporary.

Prerequisite: admittance to the Theatre Master's program.

Upon successful completion of this course, the student will be able to:

Analyze and evaluate primary texts relating to theatrical history from Modernism to contemporary.

Analyze and evaluate current scholarship of theatrical history from Modernism to contemporary.

Lead seminar style discussions.

Create and present a conference-length paper reflecting a research topic relating to theatrical history from Modernism to contemporary.

TH 536. Stage Movement (3).

Study and practice in specialized movement techniques for the stage, as applied to the skill development of special movement skills such as; performance, stage, combat, mime or dance at the high school and community college levels. Presented in a workshop intensive setting.

Enrichment students seeking to enroll in this course require

previous training and/or experience in stage movement or dance. May be repeated up to 6 credits, if the content changes. Prerequisite:

admission to the MA in theatre production or department consent.

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 ideas and methods for use of the movement technique in a secondary or elementary school drama program.

TH 540. Contemporary Directing

(3). Theory and practice in directing contemporary realistic plays.

Upon successful completion of this course, the student will be able to:

Review the guidelines required in creative project documentation and apply them to a contemporary play of student's choice, preferably the play the student wishes to do for his or her culminating project.

Prepare a hypothetical written rehearsal schedule for their thesis production your home school and the second for the classroom project this term

Create two ground plans for two different settings, one from your scene work in class.

Prepare other students through direction of short "plays" to accomplish blocking with attention to interpretation, pacing, emotional through line, sustaining of dramatic tension, storytelling and picturization and coaching of honest performances.

Present a polished, completed performance of directing exercises.

Analyze one act of his or her thesis script and divide it into units of action, labeling each unit with a title which describes the action.

TH 541. Styles in Acting and

Directing (3). Theory and practice acting in and directing classical plays.

Upon successful completion of this course, the student will be able to:

Review the guidelines required in the culminating creative project documentation and apply them to a styles scene of student's choice, preferably from the play the student has chosen for their culminating production

Demonstrate mastery of targeted exercises as they perform styles scene

Analyze the period styles script and create a concept statement that addresses their concept in a variety of ways

Organize and lead rehearsals as both director and facilitator

Present a polished, completed performance of directing exercises Effectively organize and lead the project as the director

TH 542. Musical Theatre

Directing (4). Study of the director's preparation and rehearsal practices for coordinating and mounting a full musical production.

Prerequisite: TH 540.

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 both the SLS method and Bel Canto approaches. 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 audition techniques.

TH 556. Sound Methods (3).

Theory and practice of engineering and creating sound for stage and screen. Course will not have an established scheduling pattern.

Upon successful completion of this course, the student will be able to: Utilize script analysis techniques to determine appropriate sound choices: both cues and source material.

Identify the pieces of sound equipment used in a sound reinforcement system and demonstrate what each piece of equipment does while using terminology common to sound reinforcement and sound design.

Utilize sound editing software to construct complex cues that create an aural environment.

Utilize sound playback software and systems common to the theatrical industry.

Demonstrate and diagram the signal flow in a typical sound reinforcement system to trouble shoot a troubled sound reinforcement system.

TH 564. Wig Applications (3).

The study and practice of creating and restoring wigs for stage. TH 464 and TH 564 are equivalent courses; student may not receive credit for both. Additional course fees apply. Upon successful completion of this course, the student will be able to: Identify and demonstrate the use of wig making and styling products Incorporate educational tools to help implement this unit into their lesson plans

Investigate and price existing products to use in future productions produced by the student's school for their theses projects

Demonstrate concern for safety procedures of self and others Demonstrate advance styling, maintenance and building techniques for stage wigs

TH 565. Costume and Makeup Methods (3). Study and practice of creating costumes and related accessories, and makeup techniques for realistic and classic productions found at the secondary and college levels. Presented in a workshop intensive setting. Presented in a workshop intensive setting. May be repeated up to 6 credits if content changes.

Upon successful completion of this course, the student will be able to: Demonstrate the application of the various costume techniques and processes using a variety of materials.

Demonstrate a working knowledge of fashion periods used in theatre productions.

Demonstrate appropriate make up techniques for use in theatre and film.

Critically analyze personal work and the work of peers as it relates to individual students local situations.

TH 566. Mask and Makeup Methods (3). Study and practice of creating masks, makeup, and related accessories and special effects in productions found at the high school and community college levels.

Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes.

Prerequisite: admission to the MA in theatre production or department consent.

Upon successful completion of this course, the student will be able to: Demonstrate knowledge of the use of specific common mask-making make up and wig materials.

Demonstrate: project organization, creative problem solving, and safety in the workplace and application skills.

Demonstrate skills and techniques, project organization, creative

problem solving, and safety in the workplace.

Create several masks of different materials for different shows, critically analyze personal work and the work of peers as it relates to individual student's local situations. Demonstrate educational tools to help implement this unit into their lesson plans.

Design and create a costume accessory that can be used for further lessons in their classroom.

TH 568. Lighting Methods (3).

Study and practice in the concepts of color, instruments, drafting, trouble shooting techniques, and electricity for lighting stage

productions with emphasis on equipment and design applications found at the high school and community college levels. Presented in a workshop intensive setting.

Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes.

Prerequisite: admission to the MA in theatre production or department consent.

Upon successful completion of this course, the student will be able to: Gain a basic understanding of electricity and how it is used in theatrical lighting.

Identify and employ the various tools, fixtures, and accessories frequently used in lighting design.

Read and create paperwork that describes a lighting design and use the information to describe and/or execute a lighting design.

Use the principles of lighting design to light a live performance.

TH 571. Design Methodology (3).

Study and practice in the concepts and fundamentals of design for stage productions found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment

students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite: admission to the MA in theatre production or department consent.

Upon successful completion of this course, the student will be able to:

Upon successful completion of this course, the student will be able to:

Develop practical design-related skills. Students will design several small conceptual and text based projects
Identify, and use the elements and principles of design to create a composition. Students will complete projects that make use of the elements and principles of design
Develop a conceptual foundation for approaching the design process. Students will create/compile conceptual process materials required to create a design
Identify and apply the elements, processes and tools of designing. Students will use the elements, principles, and tools of design to create a set, costume and lighting design for a play
Discuss design elements in a theatrical production or an artistic composition

TH 583. Scenic and Property Methods (3). Study and practice of construction, assembly, and scene-shifting techniques; shop safety; painting; and/or prop construction for stage productions found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite: admission to the MA in theatre production or department consent.

Upon successful completion of this course, the student will be able to: Demonstrate safety procedures appropriate to theaters in general and the theatre construction /scene shop situation in particular.

Demonstrate the basic theatrical construction techniques used in the construction of a stock scenery unit, then assemble stock pieces into a small box set in the class.

Demonstrate general scenic painting techniques.

Document & execute the props construction process, from design concept to completed prop.

TH 587. 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 more than one. May be repeated up to 8 credits.

Prerequisite: TH 501

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 teaching 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 588. Dramaturgy (3).

Foundations in the research as applied to theatre production, including author, the world of the play, production history, critical analysis, images, and sources, with attention to the influences of social history, culture, and environment on the production.

Upon successful completion of this course, the student will be able to:

Identify research materials for application to theatre production, including author, the world of the play, production history, critical analysis, images, and sources, with attention to the influences of social history, culture and environment on the production.

Analyze and evaluate both past and current trends in dramaturgical practice.

Create and present a dramaturgical portfolio for a selected play that would be suitable for a production.

TH 589. International Applied Studies (1-6). Applied research at international venues. May be repeated up to 6 credits.

Upon successful completion of this course, the student will be able to:

Conduct research abroad at institutions of higher learning, libraries, archives, and/or theatre venues.

Create and present a conference-length paper reflecting an international theatre studies research topic.

TH 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

TH 593. Dramaturgical Practicum (1-3). Practical experience in dramaturgy within the context of theatre production. May be repeated up to 6 credits.

Prerequisite: TH 588.

Upon successful completion of this course, the student will be able to:

Apply the skills learned in TH 588 Dramaturgy in production as the dramaturg either on campus or for a regional theatre, preparing documentation and study guides appropriate to the director's concept.

TH 595. Culminating Portfolio (1).

LiveText portfolio will be employed to build professional portfolios, documenting theatre training and compliance with state certification and NCATE standards. 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 596. Individual Study (1-6). May be repeated for credit.

TH 598. Special Topics (1-6).

Course content identified by title in the university class schedule. May be repeated for credit under different titles.

TH 599. Seminar (1-5). May be repeated for credit.

TH 600. Capstone Practicum (1).

Mentored practicum in directing techniques where student demonstrates mastery of the skills acquired in the program; through the direction of, and participation in, a series of one-act projects in the classroom setting. This course is taken the final summer of study and must be completed satisfactorily in order to advance to the final requirement for graduation, the creative project (TH 700, Thesis). Prerequisite: completion of, or concurrent enrollment in, all course work leading to the creative project. Grade will be either S or U.

Prerequisite: admission to the MA

in theatre production or department consent.

Upon successful completion of this course, the student will be able to:

Present a one act play

demonstrating skills acquired and developed in directing courses

Present a one act play

demonstrating foundational skills in performance

Present a one act play

demonstrating foundational skills in design

TH 696. Individual Study (1-6).

May be repeated if subject is different.

TH 698. Special Topics (1-6). May be repeated if subject is different.

TH 699. Seminar (1-6). May be repeated if subject is different.

TH 700. Master's Thesis Project (1-6). Designed to credit and record supervised study for the master's examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Upon successful completion of this course, the student will be able to:

Pass an oral examination and defense of the thesis: the thesis

required for the M.A. in Theatre

Production is a full production of a

play or musical at the candidate's

teaching location, with written

documentation, director's book, and

video submitted to the department.

UNIV 509. Civic Engagement (3).

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. UNIV 509, FCSG

509, EDAD 509, and EDCS 509 are

cross-listed courses, students may

not receive credit for both.

WL 500. Professional

Development (1-5). Development topics and issues for in-service and

continuing education of

professionals. May be repeated for

credit. Exclude GPA. Not applicable

to degrees nor institutional

requirements for endorsements or

teaching certificates offered through

the university.

WL 596. Individual Study (1-6).

May be repeated if subject is different.

WL 598. Special Topics (1-6). May be repeated if subject is different.

WL 599. Seminar (1-5). May be repeated if subject is different.

WL 696. Individual Study (1-6). May be repeated if subject is different.

WL 698. Special Topics (1-6). May be repeated if subject is different.

WL 699. Seminar (1-6). May be repeated if subject is different.