# Central Washington University 2010-2011 Undergraduate/ Graduate Catalog 

Central Washington University

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Greetings,
I am Jim Gaudino, Central Washington University's fourteenth president. Since my wife Katie and I arrived in January of 2009, we have been warmly received by CWU and the communities surrounding our campuses. Now, it is my pleasure to extend those same warm greetings to new and returning students.

Central Washington University is two universities in one-a residential campus in Ellensburg and university centers located on six community college campuses throughout the state. Those completing degrees in Ellensburg will find a culturally rich campus life and an outdoor paradise, with some of the best flyfishing, hiking, snowmobiling, and skiing in the Pacific Northwest. Those completing degrees at our centers will benefit from caring staff, conveniently scheduled classes, rich campus diversity, and locations close to home and work.

At Central Washington University, we stress excellence and innovation, we provide personal attention to each student, and we transform lives. We do this not only through classroom experiences, but also through a whole host of co-curricular and extra-curricular activities. I encourage you to join a club, participate in student government, volunteer in the community, become a member of a research team, or engage in similar opportunities that will enrich your educational experience.

I hope to meet each one of you during your tenure as a student here. Please introduce yourself when you see me walking around campus, at a campus event, or even in the grocery store.

Welcome to CWU. I'm glad you've chosen to attend this remarkable university.


Jim Gaudino
President

## 2 UNDERGRADUATE/GRADUATE CATALOG 2009-2010

The university catalog is prepared by Registrar Services, the Dean of Graduate Studies and Research, and the Public Relations and Marketing Department staff. Copies of the catalog may be obtained from the Wildcat Shop, Central Washington University, 400 East University Way, Ellensburg, WA 98926-7449. It is also available online at www.cwu.edu / ~catalogs.

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.

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

## Central Washington University

 June, 2010Registrar Services<br>Mitchell Hall<br>Central Washington University<br>400 East University Way<br>Ellensburg Washington 98926-7465

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## ONLINE ELECTRONIC CATALOG

## WWW.CWU.EDU/~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 Center, Hertz Hall, room 107. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 509-963-3523
Office of Admissions, Mitchell Hall, first floor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1211
Associated Students of Central Washington University (ASCWU),
Student Union and Recreation Center, second floor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1693
Career Services, Barge Hall, room 204 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1921
Cashiers Office, Barge Hall, room 104 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-2224
Catering Services, Tunstall Hall . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1302
Center for Disability Services, Bouillon Hall, room 205 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-2171
Conference Services, Vantage room . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1141
Continuing Education Office, Bouillon Hall, room 206. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1504

Financial Aid, Barge Hall, room 115. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1611
Graduate Studies and Research, Barge Hall, room 305. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-3103
University Housing and New Student Programs, Button Hall, second floor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1831
International Studies and Programs, International Center. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-3612
James E. Brooks Library . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1021
President's Office, Barge Hall, room 314 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-2111
Provost, Barge Hall, room 302. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1401
Public Safety and Police Services, Public Safety Building . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-2959
Registrar, Mitchell Hall, first floor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-3001
Student Affairs, Bouillon Hall, room 204. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-1515
Student Employment, Barge Hall, room 103. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-3008
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Veterans Office, Mitchell Hall, first floor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 963-3028

## AVAILABILITY OF SAFETY AWARENESS INFORMATION

The Department of Public Safety and Police 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. 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, Department of Public Safety and Police Services, 400 East University Way, Ellensburg, WA 98926-7527.

## FALL QUARTER

Open registration
Classes begin
Change of class schedule
Deadline to apply for baccalaureate degree for winter
Advising week
Uncontested withdrawal deadline for fall
Early registration for winter
Veterans Day holiday
Thanksgiving recess
Faculty development/study day
Final exam week
Days of instruction

## WINTER QUARTER

New Year Holiday (observed)
Registration
Classes begin
Change of class schedule
Deadline to apply for baccalaureate degree for spring
Martin Luther King Jr. holiday
Advising week
Early registration for spring
Uncontested withdrawal deadline for winter
Presidents' Day
Faculty development/study day
Final exam week
Days of instruction

## SPRING QUARTER

Open registration
Classes begin
Change of Class Schedule
Deadline to apply for baccalaureate degree for summer Advising week
Early registration for summer
Uncontested withdrawal deadline for spring
Early registration for fall
Memorial Day holiday
Faculty development/study day
Final exam week
Commencement (Eastside)
Commencement (Westside)
Days of instruction

2010
September 20-21
September 22
September 22-28
October 1
November 1-5
November 5
November 8-24
November 11
November 24-26
December 6
December 7-10
(54)

## 2011

December 31
January 3
January 4
January 4-10
January 14
January 17
February 7-11
February 16-March 4
February 18
February 21
March 14
March 15-18
(52)

## 2011

March 28
March 29
March 29-April 4
April 8
May 9-13
May 16-June 20
May 14
May 16-June 3
May 30
June 6
June 7-10
June 11
June 12
(53)

## 2011

September 19-20
September 21
September 21-27
September 30
October 31-November 4
November 4
November 7-23
November 11
November 23-25
December 5
December 6-9 (54)

## 2012

January 2
January 3
January 4
January 4-10
January 13
January 16
February 6-10
February 15-March 2
February 17
February 20
March 12
March 13-16
(51)

## 2012

March 26
March 27
March 27-April 2
April 6
May 7-11
May 7-June 18
May 11
May 14-June 1
May 28
June 4
June 5-8
June 9
June 10
(53)

## SUMMER SESSION

Open registration (all sessions)
Classes begin (six weeks - full)
Change of schedule (six weeks - full)
Deadline to apply for baccalaureate degree for fall
Independence Day holiday
Six-week session closes
Full term closes

## 2011

June 21
June 21
June 21-23
July 1
July 4
July 29
August 19

2012
June 19
June 19
June 19-21
July 2
July 4
July 27
August 17

 (47) MUPQ
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■ Administrative buildings


 ELLENSBURG, WASHINGTON CENTRAL WASHINGTON UNIVERSITY


> Docendo Discimus
> "By Teaching, We Learn" HISTORY, MISSION, SHARED VALUES, AND STRATEGIC EMPHASES

Central Washington University is one of six state-supported institutions offering baccalaureate and graduate degrees. The university has its own governing board, the board of trustees, with eight members, seven of whom are appointed for six-year terms by Washington's governor with consent of the state Senate, and one student trustee, appointed annually. Central was established in 1890 as Washington State Normal School by the first legislature to fulfill the intent of the 1889 Enabling Act for Statehood. In 1891, doors opened for classes. Ellensburg Normal School became Central Washington College of Education in 1937, Central Washington State College in 1961, and Central Washington University in 1977.

## Mission Statement

Central Washington University's mission is to prepare students for responsible citizenship, responsible stewardship of the earth, and enlightened and productive lives. Faculty, staff, students, and alumni serve as an intellectual resource to assist central Washington, the region, and the state in solving human and environmental problems.

Qualified faculty and staff create a community that encourages and supports the emotional, personal, and professional growth of students from a variety of backgrounds. The university works with community colleges through university centers across the state and employs technology to extend the reach of its educational programs.

The university community values teaching as the vehicle to inspire intellectual depth and breadth, to encourage lifelong
learning, and to enhance the opportunities of its students. The faculty develop and strengthen bachelor's and master's degree programs in the arts, sciences and humanities; teacher education; business; social services; and related specializations. A strong liberal arts foundation, applied emphases, opportunities for undergraduate research, creative expression and international study, and close working relationships between students and faculty are hallmarks of the undergraduate experience. Graduate programs develop partnerships between faculty and students to extend scholarship to important areas of research and practice.

## Vision

Central Washington University is becoming respected nationally for outstanding academic programs, global sensitivity and engagement, and a stimulating intellectual community that prepares students for lifelong learning in a diverse and changing world.

## Core Values

As a community of scholars, we are committed to:

- Each student's greatest good
- Excellence achieved through a diversity of ideas and people
- A rigorous curriculum and outstanding teaching
- Intellectual inquiry, exploration, and application
- A supportive university community


## Strategic Goals

Goal I. Maintain and strengthen an outstanding academic and student life on the Ellensburg campus
Goal II. Provide for an outstanding academic and student life at the university centers
Goal III. Diversify the funding base and strengthen infrastructure to support academic and student programs
Goal IV. Build mutually beneficial partnerships with the public sector, industry, professional groups, institutions, and the communities surrounding our campuses
Goal V. Achieve regional and national prominence for the university
Goal VI. Build inclusive and diverse campus communities that promote intellectual inquiry and encourage civility, mutual respect, and cooperation

## 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, 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, sexual harassment, and discrimination grievance procedures are located in Appendix A or at www.cwu.edu / ooeo. The person responsible for institutional compliance with most federal and state laws and institutional policies dealing with discrimination is Staci Sleigh-Layman, Office for Equal Opportunity, Barge Hall, room 211, 509-963-2205 or TDD 509-963-2207. She also serves as the university's Title IX coordinator. Robert Harden, Center for Disability Services Director and ADA compliance coordinator, is responsible for compliance with state and federal disability-related laws and institutional policies. He is located in Bouillon Hall, room 205, and can be contacted at 509-963-2171 or TDD 509-963-2143.

## ACCREDITATION AND MEMBERSHIP

The university is accredited by the Northwest Commission on Colleges and Universities (NWCCU). Some programs have been accredited by specialized accrediting associations, including the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone 410-347-7700); American Chemical Society (ACS) Committee on Professional Training; American Council for Construction Education (ACCE); American Dietetic Association Commission on Accreditation for Dietetics Education (CADE-ADA); the Committee on Accreditation of Educational Programs for the EMS-Professions (CoAEMSP); National Association of School Psychologists (NASP); National Association of Schools of Music (NASM); National Collegiate Athletic Association (NCAA); National Council for Accreditation of Teacher Education (NCATE); and U.S. Government Printing Office Federal Depository Library Program (U.S. GPOFDLP).

The university holds membership in all of the major international, national, regional, and state academic associations. Contact the Office of the Provost/Senior Vice President for Academic Affairs for a complete list.

## STUDENT ACADEMIC SUPPORT

## Academic Advising Center

The university's Academic Advising Center is located in Hertz Hall, room 107. It provides entering freshmen, continuing students, and transfer students with general advising information and help. This includes information on the general education program, graduation requirements, transferability of credits, interpreting Central Academic Progress System (CAPS) reports, pre-major advising, and counseling students who are in academic difficulty. The center also offers special program advisors, advising seminars, college survival skills classes, and advising publications.

The Academic Advising Center provides personalized advising for minority and nontraditional students. The multicultural advisor offers guidance and assistance for minority students experiencing challenges associated with higher education. The multicultural advisor provides general advising, assists with academic planning and college success skills, and can arrange for free tutoring. The nontraditional advisor assists nontraditional students in navigating the university system, general advising, course selection, time management, and study skills development. The nontraditional student designation can be because of age ( 25 or older), or self-identified based on family or other circumstances.

The Academic Advising Center manages UNIV 101, a required course for entering freshmen, that assists students with learning about the university's policies and procedures, selecting a major, advising for general education, and other forms of support. For more information visit the Academic Advising Web site at www.cwu.edu / acadadv/.

## College Assistance Migrant Program (CAMP)

The College Assistance Migrant Program (CAMP) provides financial and academic support services to freshman students from migrant and seasonal farmworking backgrounds. It is funded by a grant from the Department of Education, Office of Migrant Education.

CAMP is designed to help students succeed as they begin their college careers by recruiting and assisting them through the CWU admissions process, and by providing them support during their freshman year. Eligible students receive a variety of services including scholarships, stipends, tutoring, study skills training, mentoring, career planning services, and cultural enrichment opportunities.

To qualify for the CAMP program the student must meet the following requirements:

- Be a U.S. citizen, permanent resident, or eligible non-citizen
- Have freshman standing (fewer than 44 quarter credits)
- Meet criteria to determine migrant or seasonal farmworker status:

Parent (or student, if independent) has worked for at least 75 days in the last 24 months in farmwork such as production of crops, dairy products, poultry, livestock, tree harvesting, or fish farming. Farmwork must be primary form of employment and be performed on a temporary or seasonal basis

- OR student has participated in the Chapter 1 Migrant Education Program
- OR student or parent qualifies for the WIA167 program
To apply for the CAMP Program, call 509-963-1729 (toll free 866-298-4968 x1729) or download an application off the Web site at www.cwu.edu / ~camp.


## Career Services

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

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

UNIV 301: This two-credit Career Management class helps students prepare for the transition from the classroom to the workplace. The focus of the course is on job search skills in pursuit of fulfilling employment.

Job Search Preparation: On-campus interviews take place in Barge Hall, room 204 M between students and a variety of businesses, government agencies, nonprofit organizations, school districts, and the military. Educational placement files are managed through Career Services as well. Career events are offered throughout the year to bring together graduating seniors and organizations that are seeking well-trained graduates.

Career Counseling: Career counselors help students to make major and career decisions through a variety of online assessments and determining skills, strengths,
values, and interests. To prepare the students for internship and career opportunities, career counselors provide information on developing strong resumes and cover letters, practicing effective interviewing skills, learning successful internship and career job search strategies, and how to negotiate salary. Focus is on becoming a professional. Those experiencing career transitions are also welcome to meet with a career counselor.

Students and alumni seeking assistance at Career Services are strongly encouraged to open an account on the Wildcat Career Network's job search engine at www.cwu. edu / ~career. Registration opens up the database of job and internship opportunities, and allows students to sign up for on-campus interviews and career events. There is no fee for this service.

Counselors are available from 8 a.m. to 5 p.m. in Barge Hall, rooms 202 and 204-M in Ellensburg, and at CWU-Lynnwood and CWU-Des Moines as well.

Cooperative Education: Co-op Ed offers assistance to students wanting to take advantage of real-life work experience while they are in school. Many departments require an internship as part of the major; others accept a limited number of hours toward graduation. An internship is an opportunity to combine career, social, and personal growth with the educational process. The student works with their department advisor and the Career Services Co-op office in Barge Hall, room 204 -M to prepare the process that leads to a successful academic/ work experience.

Career Fairs and Events: The department organizes career fairs throughout the year as an opportunity to network with employers, learn dining etiquette, interview with businesses, meet with faculty, review graduate school opportunities, and more. Check information on career fairs, workshops and events on www.cwu.edu / ~career.

Graduate School Preparation: Career Services assists students with the graduate school application process, including refining the CV or resume, providing feedback on the Statement of Purpose, information on the graduation school interview, and references.

## Don and Verna Duncan Civic Engagement Center

University students, clubs, organizations, and residence halls are encouraged to explore service opportunities, from shortterm volunteer experiences to intensive capstone service programs, available through the Don and Verna Duncan Civic Engagement Center. The primary mission of the center is to provide community-based learning opportunities that enhance CWU's co-curricular or curricular initiatives for students, administrators, and faculty. The staff coordinates service opportunities within the community for students to use discipline-
specific knowledge to service educational, environmental, human, and public safety needs.

## Educational Opportunity Center

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

## Educational Technology Center

The Educational Technology Center (ETC), is located in Black Hall, room 105. The ETC provides instructional technology leadership, support, and curriculum resources to all faculty, staff, and students in the Center for Teaching and Learning (CTL). The ETC provides services, resources, and training for the Center for Teaching and Learning (CTL) faculty, staff, and students through the ETC library, which houses the various library collections, computers, and the Multimedia Production Lab. The ETC is intended to serve as an exemplary model of educational technology resources and educational curriculum materials for K-12 pre-service and in-service teachers in the state of Washington. The ETC has wireless access. For more information call 509-963-3293 or visit the Web site at www.cwu.edu / ~etc.

## Honor Societies

Ten national honor societies maintain chapters at the university.

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

The Alpha Sigma Lambda National Honor Society, established in 1946, provides the opportunity to recognize the special achievements of adult students. Alpha Sigma Lambda acknowledges adult students who accomplish academic excellence while facing competing interests of family, work, and community. Members must have earned a minimum GPA of 3.5 on a 4.0 scale. The CWU chapter of ASL is Psi Delta Omega
and is advised by the Center for Student Empowerment. Invitations to join Psi Delta Omega are sent out at the beginning of each academic year, and induction ceremonies are held both at the Ellensburg campus and at one of the westside centers.

The national honor society of Phi Kappa Phi has as its primary objective the recognition and encouragement of superior scholarship in all academic disciplines. Membership is open to undergraduate students, graduate students, and faculty members by invitation, with election based on superior scholarship. New members are inducted each spring.

The honor society in education, Kappa Delta Pi, encourages high professional, intellectual, and personal standards, and recognizes and honors outstanding achievement in the study of education. Membership is open to undergraduate students, graduate students, and faculty by invitation. New members are inducted quarterly.

Tau Iota is Central's chapter of Phi Alpha Theta, the international honor society in history. Membership is composed of students and professors who have been elected upon the basis of excellence in the study and writing of history. The society's objective is the promotion of the study of history by the encouragement of research, good teaching, publication, and the exchange of learning and thought among historians.

Delta Pi Epsilon is a post-baccalaureate honor society for business educators. Its objectives are to improve business education through research, recognize exceptional research achievements, and publicize research in business education. Membership is open to business educators who meet scholastic criteria and exhibit a commitment to research in business education.

Pi Sigma Alpha (Mu Lambda chapter) is CWU's honor society for students of political science. This is a national honorary, first organized in 1920, with more than 300 chapters throughout the country. Membership is based upon scholastic achievement and a genuine interest in the understanding of politics and political issues.

Phi Sigma Tau is the international honor society in philosophy. Its purpose is to recognize and encourage excellence in philosophic scholarship among students and faculty. Central's local chapter (Washington Alpha) meets periodically to discuss philosophic issues in a spirit of friendship and conviviality. Membership is based on scholastic attainments.

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

Sigma Pi Sigma is the national physics honor society. It was founded in 1921 and now has over 400 chapters nationwide. It is a member of the Association of College Honor Societies and is affiliated with the American Institute of Physics and with the American Association for the Advancement of Science. Membership is open to undergraduate and graduate students and faculty members. Students elected to membership must maintain high standards of general scholarship and outstanding achievement in physics. Besides providing an incentive for all physics students to rise to excellence, the society also encourages physics interest and science literacy in the general public.

Alpha Phi Sigma is the nationally recognized honor society for students in the criminal justice sciences. The society recognizes academic excellence by undergraduates as well as graduate students of criminal justice. The honor society is open to students who have a declared law and justice major or minor, who maintain a minimum of 3.0 overall GPA on a 4.0 scale, and a 3.2 GPA, on a 4.0 scale, in law and justice courses. The student must also rank in the top 35 percent of their classes and have completed a minimum of four courses within the law and justice curriculum.

## James E. Brooks Library

The mission of the Brooks Library is to provide resources and services to stimulate intellectual curiosity and to facilitate learning and research within the academic community. The library's personnel are engaged in the creation of collections of materials that support the curriculum and the provision of access to those materials. More specifically these activities include the collecting and preservation of materials, user instruction and guidance, information retrieval, analysis and organization, global access to library and information resources, and collaboration with instructional faculty in developing programs, collections, and research.

Students and other library users have 24/7 Web-based access to over 1.3 million books, films, government documents, maps, audio recordings, videos, and DVDs on site in the Brooks Library. Additionally, the library provides similar access to more than 25 million information items from the academic libraries of the Northwest that belong to the Orbis Cascade Alliance. Full-text electronic and / or paper subscriptions to over 15,000 periodicals and academic journals are available electronically or on site.

Library staff are available to provide personal service to students over 90 hours per week. Group study areas and an open computer lab are available to users who visit the main library in Ellensburg. Students at
the centers have access through a toll-free phone number or e-mail access to reference librarians. Internet connectivity for personal laptops is available on each floor of the library and laptops are available for checkout by students. The library's staff, services, and collections support the educational efforts of students, foster intellectual, social and ethical development, and show students how to locate, use, and evaluate information to equip them for independent, lifelong learning.

## Student Support Services

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

## Washington Trio Expansion Program (WaTEP)

Washington TRIO Expansion program is funded by the state of Washington and is designed to serve 250 TRIO-eligible students each year. Students must be first generation, low income, and / or students with disabilities, who are not otherwise served in a regular Student Support Services program. Students will have access to services such as those
found in the SSS program with the ultimate goal to help retain and graduate them from the university.

## Academic Achievement Programs: Tutoring and Supplemental Instruction

Individual tutorial assistance is provided for students participating in Student Support Services, Washington Achievers Scholars Program, College Assistance Migrant Program, and Multicultural Student Services.

Supplemental Instruction provides student-led, out-of-class study sessions designed to teach students critical thinking, problem-solving, and organizational skills that will enable them to master abstract and complex material. Supplemental Instruction is offered in several classes each quarter and is open to any student enrolled in those classes.

## Testing and Assessment Services

Testing and Assessment Services provides support to CWU students, faculty, and staff, as well as the central Washington community. Information, including a list of exams and dates, is available from its offices in Bouillon Hall, room 125, or on its Web site at www.cwu.edu / ~testing, or by phoning 509-963-1847.

CWU Testing and Assessment Services administers over 25 exams, scans exams for faculty, and processes Student Evaluations of Instruction. Their services include consulting on the assessment of learning outcomes, survey design and analysis, and analysis of data.

CWU Testing Services is an Educational Testing Services / Prometric certified test center. It administers exams, including:

1. Placement into CWU courses or programs (COMPASS and the Communication test)
2. College Level Examination Program (CLEP) tests for challenging certain courses

3. English proficiency tests for non-native speakers, e.g., Test of English as a Foreign Language (TOEFL), and Test of English for International Communication (TOEIC)
4. Tests for other topics including the General Education Development (GED), Graduate Record Examination (GRE), Medical College Admissions Test (MCAT), etc.

## University Math Center

The University Math Center provides academic support in quantitative skills for students in courses across the curriculum. There are two main avenues of support. The UMC staffs and operates three levels of developmental math courses to prepare students for college-level mathematics. Advising for appropriate placement is required through the UMC, Hertz Hall, room 101. Individual tutoring is available for these courses.

The University Math Center's second avenue of support is through the Drop-in Help Lab located in Hertz Hall, room 104. Students are encouraged to use the lab for any course with a quantitative component Trained peer tutors are on staff to guide students through the process of solving problems. No appointment is necessarystudents may either stop by with a specific question or use the lab as a place to do homework alone or with classmates. Current lab hours, placement information, and answers to frequently asked questions about the UMC's services are available at www.cwu.edu / ~mathcenter.

## University Writing Center

Trained peer consultants work with students of all levels and disciplines, guiding them toward written communication that will be effective in a global and diverse environment, during and after their studies at CWU.

Consultants meet one-on-one with students in the center and reach out throughout the university. Consultants lead interactive workshops with small and large groups of students, tailored to the needs of each course; for example, they may discuss thesis development, research, elements of argument, organization, punctuation, citation, or peer review.

The center's services are free and available both in-person and on-line, at the main campus and the University Centers. In Ellensburg, one-on-one consultations are available six days a week, in Hertz Hall, room 103, the library's Fishbowl, and the SURC, room 273. Students may drop by or make appointments.

Live, interactive online consultations are available by appointment, for students of all campuses. For more information, go to the Web site, www.cwu.edu / ~writingcenter, or call 509-963-1296.

## STUDENT LIFE

## Campus Life

The department of Campus Life is dedicated to enriching students' experiences outside the classroom by providing social, cultural, recreational, and educational programs, services, and apprenticeships. The variety of events offered by Campus Activities include music, comedy, speakers, concerts, and performances. Special events include Homecoming, Family Weekend, Boo Central, Ware Fair, and Student Appreciation Day. Campus Life representatives serve on organizing committees for orientations, Wildcat Welcome Weekend, homecoming, recreation, and SURC operations. It employs many students in paraprofessional positions, offers internships and practicum experiences, and provides a range of services for university departments, student organizations, and the community.

## Associated Students of CWU

The Associated Students of Central Washington University (ASCWU) board of directors (BOD) is the student government board advised by the senior director of Campus Life and the SURC. Executive responsibility is vested in the seven-member BOD and the senior director of Campus Life and the SURC. The board members are elected by the student body to serve as policy-development officers. As a vehicle from which students may share different views, the ASCWU is an integral part of the total decision-making process of CWU. Also included in this area is advisement and support for university student clubs, which average more than 125 clubs per year.

## University Recreation

Housed in the 80,000-square-foot, state-of-the-art recreation center, University Recreation provides an array of programs to engage students in their personal fitness goals. Programs include intramural sports, sport clubs, personal training, group fitness, outdoor programs, equipment rentals, climbing wall, summer kids camp, and a myriad of special events including films, lectures, interactive programs, and instructional courses..

Intramural Sports (IM Sports) is designed to provide opportunities for all members of the university to participate in women's, men's, and co-ed team sports.

Sport clubs allow opportunities for students, with mutual interests in a sporting activity, to represent CWU in intercollegiate competitive activities that are not available through the Athletics Department.

Personal training packages are available to all recreation center members. For a nominal charge, a personal trainer will develop a challenging workout routine specifically designed to your needs.

Group fitness classes are available to all recreation center members for a very small fee. From Spinning to ballet, intense ab workouts to yoga, there's something for everyone.

Outdoor Pursuits and Rentals provides both guided trips and equipment rentals to support students' outdoor recreation desires. The fully-staffed, 50 -foot climbing wall in the Student Recreation Center offers bouldering and roped climbing, and certification courses in top-rope belay and lead climbing.

Little Cats' Summer Kids Camp provides a quality day camp atmosphere for Ellensburg-area youth entering grades 1-5.

## Student Union Recreation Center (SURC)

The SURC is the community center of the university, providing services, conveniences, and amenities for all members of the CWU community and their guests. The SURC houses the following offices and departments: ASCWU, Campus Life administration and accounting, Campus Activities, Center for Excellence in Leadership, Center for Student Empowerment, Civic Engagement Center, Connection Card, Dining Services, Diversity Education Center, Information Center, student radio station KCWU / 88.1 the 'Burg, Publicity Center, SURC Operations and Scheduling Services, Ticketmaster/SURC Box Office, University Recreation, Wildcat Shop, and two tenant spaces, one of which houses the Wildcat Wellness Center. Facilities available for use include meeting rooms, the SURC pit, and a 345 -seat theater and ballroom.

## Center for Disability Services

The Center for Disability Services (CDS) facilitates access to university programs, activities, and services for students with disabilities. Utilizing documentation of disability and information obtained in consultation with the student, CDS staff assesses the affects of a student's disability on his/her ability to access the educational process and identifies reasonable academic adjustments/accommodations. In addition, DSS works to sensitize university faculty and staff to the needs of students with disabilities and helps students obtain the materials, equipment, and assistance necessary to successfully pursue their education. Students wishing to request disability accommodations are responsible for contacting CDS.

Appropriate accommodations/academic adjustments are determined for each student on an individual basis. Examples of the types of accommodations available include textbooks and academic materials in accessible formats (digital audio, large print, Braille, electronic text), alternative examination procedures, sign language interpreters, speech-to-text transcription, tape-recorded lectures, note-taking assistance, early registration, priority snow removal,
special classroom furniture, access technology, assistance with library research, and temporary disability parking permits.

## David Wain Coon Center for Excellence in Leadership

The David Wain Coon Center for Excellence in Leadership (CEL) provides leadership learning opportunities to all CWU students. Training opportunities include leadership retreats, workshops, internships, and a broad collection of resources.

Over 2,000 students participate in CEL programs each year. Current leadership programs include the Experience Leadership Project (a three-day retreat for first-year students), Cross-cultural Leadership Program, Leadership Quest (mini-retreats for all CWU students), and the Executive Internship. Students can also choose to live in the Kennedy Leadership House, join Omicron Delta Kappa (the national leadership honor society), and build their official CWU Leadership Transcript.

In addition to leadership programs and workshops, the CEL collaborates with faculty from multiple departments to offer leadership courses. Currently, the Emerging Leaders course and Cross-Cultural Leadership program are credit-bearing opportunities. Additional leadership courses are currently being developed and proposed. The David Wain Coon Center for Excellence in Leadership recognizes that every student has leadership capacity and will have ample opportunities to demonstrate leadership throughout their lifetime. Through CEL programs, workshops, and resources, CWU students are equipped to make a positive difference within their communities. For more information, please contact CEL by phone at 509-963-5124 or via e-mail at cel@cwu.edu.

## Center for Student Empowerment

The Center for Student Empowerment, located on the second floor of the SURC, offers programs and services that support the affective and cognitive development of students in out-of-classroom settings. The Empowerment Center strives to empower students to reach their full potential, both academically and personally, by facilitating various types of learning opportunities focusing on gender, violence prevention, nontraditional and commuter-student issues. We are proud of our collaborative efforts with CWU academic and university departments as well as the Ellensburg community.

Some examples of our educational programs are: Man-Up! (men's activities and discussion groups), Women's Achievement Celebration, National Women and Girls Sports Day, Operation E.L.F. (non-traditional student holiday event) and working collaboratively with the Non-traditional Student Organization (NTSO). Past programs
include V-Day: Until the Violence Stops, the Longest Revolution with Gloria Steinem, the Sexual Politics of Meat with Carol Adams, and You Throw Like a Girl with Don McPherson.

We offer two publications for nontraditional students; The Quest monthly newsletter and Making the Pieces Fit, a yearly resource handbook. Additionally, the center provides information and referral regarding campus and community resources.

## Central Transit

A student transportation system in its fifth year of operation, Central Transit, has been extremely popular. Highly visible mini-busses operate year round, connecting students with the Ellensburg business community. Central Transit boasts 25 signed pick-up and drop-off locations both on- and off-campus. Central Transit experienced significant growth with more than 35,000 student rides annually. Students have enjoyed the convenient stops at shopping areas, restaurants, and movie theaters.

Central Transit operates seven days a week from 2 p.m. until midnight as well as morning route from 7:30 a.m. to 9:30 p.m. Monday through Friday during the academic year. Additional information about Central Transit is available at www.cwu.edu~police/ transit_map.html.

## Early Childhood Learning Center

The Early Childhood Learning Center (ECLC) provides early learning to the campus community serving children aged one-month to eight-years of age. There are two sites; 1900 Brook Lane Village, Suite 100, serves children aged two years to eight years of age; Michaelsen Hall, room 109, serves children aged one month to 28 months. The program consists of early learning activities especially designed for young children; including music, language, physical activities, stories,

science and math experiences, games, puzzles, blocks, and dramatic play. Nutritious meals and snacks are served throughout the day. Operating hours during the academic year are 7:15 a.m. to 5:30 p.m., Monday through Friday. Summer hours vary slightly according to need. Call 509-963-1744 or e-mail at eclc@cwu.edu for more information.

## Dining Services

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

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

- Holmes Dining room, located in the SURC, offers an a la carte breakfast followed by all-you-can-eat service for brunch and dinner
- Central Marketplace, located in the SURC, offers a la carte service in six restaurants: Taglianno's Pizza and Pasta, Totally Tossed Salads, Lion's Rock Broiler, El Gato Loco, Pan Asia, and Wrap and Roll Deli Bar
- North Village Café, located in Green Hall on the north side of campus, offers a la carte service for meals and snacks throughout the day
You may also use your meal plan at any of CWU Dining Services' espresso bars or convenience stores:
- Cat Trax East Espresso and Smoothie Bar, Cat Trax West Espresso, and Cat's Convenience Store in the SURC
- Cat Trax North Espresso in the Brooks Library
- NVC Espresso Bar and NVC Store in the North Village Café and Store

Dining services are available on campus for breakfast, lunch, dinner, late-night meal service on weekdays, and for brunch and dinner on weekends.

If you have questions about the dining options available at CWU Dining Services, call 509-963-1591, or contact us via its Web page at www.cwu.edu / ~dining.

## Nutritious Foundations

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

## Special Events

Several special dining events are offered quarterly to enrich your dining experience. Some of these events include the Welcome Back BBQ on the first day of class, a holiday season buffet, a seafood buffet extravaganza, theme and ethnic dinners, the Student Appreciation BBQ, and the commencement luncheon.

## Employment Opportunities

Dining Services is the largest employer on campus, hiring between 200-300 students annually for part-time work. Consider joining the team where you will meet new friends and earn money.

Dining Services is a member of the National Association of College and University Food Services, and an active supporter of the academic mission of the university through participation in many out-of-classroom events and activities held throughout campus.

## Diversity Education Center

The Diversity Education Center enhances a vibrant campus environment through intentional and thought-provoking programming that challenges students to strengthen intercultural competencies and develop transformative ideas and skills. It offers signature and outreach programs, coordinates the Bias Response Plan, and provides resources to students on a variety of topics including diverse populations, LGBT issues, and social justice. All students are invited to participate in the center's activities.

## Family Resource Center

Michaelsen Hall, room 328
509-963-2785
www.cwu.edu / ~frc
The Family Resource Center (FRC) serves CWU, Ellensburg, and Kittitas County by utilizing a family perspective to enrich and improve the quality of individual and family life. The FRC offers educational programming to support families throughout their lives, coordinates family related research and civic engagement opportunities, and serves as a clearinghouse of information for resources of interest to families in the region. The FRC can assist students or other members of the community to identify services that can help to meet their family related needs and advocate for the needs of families on campus. The FRC works in close collaboration with the Center for Student Empowerment and the Early Childhood Learning Center, and seeks to partner with academic departments and community agencies to improve the access to information and knowledge that can strengthen families at CWU and the surrounding community.

## Financial Aid

Each year approximately 80 percent of CWU students receive financial aid. To be eligible for federal aid a student must be a U.S. citizen, a permanent resident, or eligible non-citizen.

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

Students must apply and be accepted for admission to the university (matriculated) to receive financial aid. Students and their families must complete a Free Application for Federal Financial Aid (FAFSA). Paper copies are available in the Financial Aid Office and at most high schools or libraries. The Web version is available at www.fafsa.ed.gov.

The application should be submitted to the federal processor as soon as possible after January 1. March 1 is the cutoff date for priority consideration for limited gift aid. Accurate preparation of the FAFSA and timely response to all requests for additional information or documentation are critical.

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

The award letter will indicate the estimated student budget, the federally determined expected family contribution, and an offer of aid including the type and amount. You must accept or cancel your aid on Safari. Loans are disbursed quarterly in equal amounts. If you have not already signed a master promissory note, you may sign electronically at www.dlenote.ed.gov.

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

Additional financial aid information is available in the Financial Aid Office, Barge Hall, room 115; the Student Employment Office, Barge Hall, room 103; the Financial Aid Resource room, Barge Hall, room 102; and through the Financial Aid Offices at each University Center, at 509-963-1611, finaid@cwu.edu, or on the CWU financial aid home page at www.cwu.edu/~finaid/.

## University Housing and New Student Programs

University Housing provides wellmaintained housing facilities, with an emphasis on student development, as part of the university's academic environment, and works to augment classroom instruction with a learning environment that is supportive of students' educational goals, personal and interpersonal growth, and cultural awareness. Programs such as Discover! New Student Orientation, Wildcat Welcome Weekend, and Wildcat Connections are part of new student programs.

CWU is a residential university with most students living on or near campus. The residence halls and apartments can house 3,300 students. CWU's residence halls offer students a variety of quality living experiences and options.

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

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

Living and Learning Communities (LLCs) are available for students interested in the following areas: education, Science Talent Enhancement Program, aviation music, Casa Latina, Asian Pacific Islander American House, Students for the Dream, International House, Leadership House, or for those participating in the Douglas Honors College.

Students may request a residence hall offering a living-learning enrichment opportunity. Hall staff and faculty from these areas of interest collaborate to provide residents with educational and social activities that integrate their field of study, enhancing their residence hall experience.

A computer lab, staffed with trained attendants, is available to all residence hall students in Barto Hall.

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

CWU also maintains 398 apartments (studio, one, two, or three bedrooms) designed for single students and those with families. The apartment complexes offer activities for residents that focus on their needs and priorities. Single student complexes feature programs and facilities that assist students in developing healthy, independent lifestyles. These programs might include wellness, self-defense, cultural awareness, lifestyle planning, career planning, and recreation. The communities in the familystudent complexes enjoy programming and activities tailored for the needs and interest of families and older students. Many activities for children and families are presented, such as holiday events, child safety awareness programs, domestic violence programs, and career planning.

At different times of the year, demands for apartments may exceed availability. For this reason, waiting lists are provided. Applications are accepted from students who have not been officially accepted for admission to CWU, but who plan to attend classes during the dates listed on their application forms. To be eligible for apartment housing, a student must be currently enrolled in and must maintain at least 12 credit hours of coursework.


Students who are required to live in residence halls are not eligible to live in the apartments. Each tenant is required to sign a lease, which provides for renting an apartment on a month-to-month basis. Written notice must be given at least 30 days prior to vacating an apartment. Pets are not allowed in any area of CWU housing.

Discover! New Student Orientation: New students with less than 45 credits, and all students who participated in Running Start, are required to attend an on-campus orientation and registration program. For students starting fall quarter, this program takes place on a variety of dates in July. For winter quarter students it is held in December and for spring quarter students it is scheduled in March. New Ellensburg campus students with 45 or more credits are urged to attend the transfer orientation. Orientations for transfer students coming fall quarter are held in July or August. For those students coming for winter or spring quarter, the orientations are held in December and March, respectively. Students attending a campus other than Ellensburg need to contact the appropriate university center for information about their orientation and registration programs.

Central changed its procedure for student alcohol violations involving underage drinking, which is a violation of Washington State law as well as the CWU Student Conduct Code governing the conduct of students. The university has a comprehensive alcohol education and prevention program. Parental notification is one part of CWU's comprehensive sanctioning procedure for underage alcohol use.

## Scholarships

Scholarships are gifts of money which do not have to be repaid. Central Washington University's Scholarship Office (Ellensburg Campus, Barge Hall, room 102) makes available the most recent scholarship application information at the Web site www.cwu.edu / ~scholar.

Scholarship eligibility is based on a variety of criteria including, but not limited to, academic proficiency, specialized talent, community service, leadership, and financial need. College and departmental selection committees as well as the Financial Aid Office select scholarship recipients. To be fully considered for all scholarship opportunities students should complete the FAFSA (Free Application for Federal Student Aid, www.fafsa.ed.gov and any college or departmental scholarship applications for which the student is eligible that are available in the Scholarship Office. In addition, students with talent in athletics, art, music, and / or theatre should contact the department(s) directly for specific audition or exhibition opportunities. Most institutional merit aid is awarded to meritorious students who submit a FAFSA. Need is not always a criteria.

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

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

## Student Employment

CWU hires more than 3,300 students to work on campus each year. Working allows students to meet a portion of their college expenses and gain valuable work experience. Career-related employment is strongly encouraged. Student Employment posts notices for on and off campus job openings on the Student Employment Web site and on the bulletin board on the first floor of Barge Hall, including summer job opportunities. Visit the Student Employment office home page at cwu.edu / ~seo for additional information, and to view the online job board. Please see the Student Employment Web site regarding Work Study opportunities. Students must be eligible for need-based financial aid to be considered for Work Study. See the CWU Financial Aid home page for details on types of aid available at www.cwu.edu/ ~finaid/.

## Student Health (medical) and Counseling (mental health) Services

A staff of credentialed professionals offers a variety of medical and mental health services for CWU students. Students registered for 6 or more credits pay a mandatory health and counseling charge and are eligible for services. There may be additional charges for specific services. All students are encouraged to check with the business office regarding ancillary fees and charges for medical services.

Services are offered at the Health and Counseling Services building. Hours are $8 \mathrm{a} . \mathrm{m}$. to $5 \mathrm{p} . \mathrm{m}$. Monday, Wednesday, and Friday; and until 7 p.m. Tuesday and Thursday. The clinic is closed on holidays and during breaks. Health/medical services are also available most Saturdays from 9 a.m. to 1 p.m. (except during breaks and during holidays). Summer hours are $8 \mathrm{a} . \mathrm{m}$. to noon and 1 p.m. to 3 p.m. when classes are in session.

The Student Health Center (509-963-1881) is a complete out-patient/ primary-care, on-campus facility available to registered students. Services are provided by credentialed and licensed medical staff. The Health Center is accredited by the Accreditation Association for Ambulatory Health Care Inc.

The medical staff provides routine and urgent-care services, including direct care of medical problems such as illnesses, injuries, and infections (e.g., colds, flu, and sexually transmitted diseases). It offers routine physical examinations, sports physicals, pap smears, pregnancy testing, and diagnostic laboratory tests / X-rays. In keeping with the educational mission of the university, special emphasis is placed on education regarding prevention and treatment of illnesses.

Medical appointments are taken by phone from Monday through Friday 7:30 a.m. to 5:00 p.m. (Tuesdays and Thursdays until 7 p.m.) and Saturdays beginning at 9 a.m. Students are encouraged to make their appointments as early as possible in the day in order to accommodate their schedules.

Emergency medical services are available at the Kittitas Valley Community Hospital when the center is not open. The cost of hospital care is at the student's expense. A student accident and health insurance plan is available (through an independent vendor) and is recommended to help defray medical costs.

The Counseling Center (509-963-1391) staff consists of licensed psychologists, licensed counselors, and doctoral interns who work under the direct supervision of senior staff.

The center operates on a brief treatment model. Services offered include individual, couple and group counseling. Students present to the center with issues such as relationship difficulties, self-esteem issues, eating disorders, stress, anxiety, and / or depression. Group counseling opportunities routinely include coping with anxiety, therapeutic lifestyle change for depression, bipolar support, and interpersonal difficulties. Special programs for campus groups are available upon request. Counseling services are private and confidential.

The Wildcat Wellness Center is located in SURC 139. Services and programs delivered through the center include: alcohol/drug education, prevention and referrals for assessment and treatment, Prime For Life classes, peer education programs, sexual assault prevention and response coordination, and referral services.

The Campus Community Coalition works to reduce high-risk and underage drinking at Central and throughout Kittitas County. For information, contact the coordinator at 509-963-3240.

## Sexual Assault Response Coordinator

Students may call 509-963-3233 and leave a confidential message and / or drop by the Wellness Center at SURC 139. Services include confidential, referral, advocacy, information and crisis response for victims, survivors, and significant others.

The SAFE (Sexual Assault Facts and Education) peer education program is sponsored by the Wellness Center and advised by the Wellness Center's health educator. It can be reached by phoning 509-963-3213.

## Veteran Services and Outreach

The Veterans Center is located in the Psychology Building, rooms 463-465. Students wishing to receive education benefits from the Department of Veterans Affairs (DVA) must contact the Veterans Center office. Notification is NOT automatically sent to the DVA when a veteran or other eligible person enrolls. For more information, call 509-9633028 or visit its Web site at cwu.edu / ~regi/ veteran. The Veterans Center provides information and guidance to veterans, dependents, and others regarding questions or Veterans Affairs Education Benefits. It also provides information on tuition waivers including police and firefighters, veterans in foreign conflict, and veteran survivors and dependents. Selected programs of study are approved by a Washington State Approving Agency for enrollment of those eligible for benefits under the Title 38 and Title 10 U.S. codes.

## Wildcat Shop

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

- Textbooks
- General reading and reference books
- Magazines
- Computer software
- Computer hardware
- Electronics
- Clothing and gifts
- School and art supplies
- Greeting cards
- Novelty gifts
- Health and beauty aids
- Stamps
- Snack foods and more

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

Special order any book, computer, or electronic product, or supply, at no additional cost. For your convenience the Wildcat Shop buys back textbooks throughout the quarter. Contact the Wildcat Shop at 509-963-131, 800-280-1186, or at www.wildcatshop.net online.

## UNIVERSITY SERVICES

## Archival Services

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

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

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

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

## Center for Spatial Information

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

CSI is also part of the National Consortium for Geospatial Innovations in America (RGIS) program which is funded by the USDA's Cooperative State Research, Education, and Extension Service. As part of eight national RGIS centers, the goal of RGIS-PN is to evaluate emerging geospatial technologies and to develop methods to use geospatial data to solve real problems on the ground. These pilot projects are then used as a foundation on which to build educational materials for training appropriate personnel in rural agencies and communities around the Pacific Northwest, and to disseminate information to a broader rural audience via collaborations with other western universities, journal articles, bulletins, conference presentations, and web-based outreach. Where possible, RGIS-PN attempts to incorporate stakeholders and interest groups in GIS-based community and watershed modeling, and subsequent decision-making processes.

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

## Central Washington Archaeological Survey

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

## Geographic Information Systems Laboratory

The GIS laboratory supports computer hardware/ software systems for analysis of spatial data (maps, aerial photos, satellite imagery, digital terrain data, etc.). The laboratory provides an excellent teaching and research facility for faculty and students from a variety of fields, including anthropology,
archaeology, biology, geography, geology, land-use planning, resource management, and sociology. In addition, the laboratory offers contract and consultation services to public and private agencies for GIS applications.

Additional information can be found at www.cwu.edu / ~geograph/.

## Information Technology Services

The Information Technology Services department (ITS) provides student computer lab management services, telephone services to the Ellensburg campus and its centers, networking and computer operations and services, maintenance and repair of university-owned computers, coordination of new purchases, desktop support, help desk services, and applications development and maintenance. ITS staff members work closely with all segments of the university to ensure that information technology is broadly developed, acquired, used, and available to all students, faculty, and staff. ITS information is available on the Web at www.cwu.edu / ~its and ITS can be contacted at 509-963-2924. The ITS HelpDesk can be contacted at 509-963-2001.

Faculty and students have easy access to contemporary hardware and software in 30 general-purpose and discipline-specific computer labs spread throughout major academic buildings on campus. Virtually every residence hall room is equipped with an Ethernet connection providing free Internet services for those students that bring computers to campus. Students who opt to live off campus can take advantage of free modem connections. In all cases, they can access their e-mail and centrally maintained file services directly via Internet connections.

Wireless access to the Internet is available across the campus and via laptop checkout in the SURC and library. Information on wireless at CWU is online at www.cwu.edu / ~wireless.


## Public Safety and Police Services

Emergency Phone: 911
Non Emergency: 509-925-8534
Business Phone: 509-963-2959 Monday through Friday, 8 a.m.-5 p.m.
Fax: 509-963-2750
Courtesy Assistance Team (CAT) 509-963-2950

Central's Police Agency operates 24 hours a day, 365 days a year, and is a general authority state police force. The department employs 14 armed police officers who are fully commissioned by the state of Washington and have the same arrest and investigative authority as other law enforcement officers in the state.

All of the officers are graduates of the Washington State Criminal Justice Training Commission's basic academy, and each has numerous hours of annual specialized police training. The majority of the officers hold bachelor's degrees in law and justice or a related field of study. The department has the primary responsibility for law enforcement on Central's campus and works closely with other law enforcement agencies. Commissioned officers patrol the campus 24-hours-a-day with emphasis on crime prevention and education, including encouraging the reporting of all crimes.

Each year the officers conduct between 60 and 75 crime prevention programs for the university community, with the majority held in the residence halls for the benefit of students. These programs include personal safety, rape awareness and prevention, operation I.D., bicycle registration, drug and alcohol use/ abuse, auto theft prevention, guidance for surviving an active shooter situation, rape aggression defense, and related crime prevention techniques.

Outdoor emergency telephones have been installed at the entrances to residence halls, while other strategically located "blue light" emergency telephones are installed throughout campus. Each phone has a direct line to the KITTCOM (Kittitas County 911) dispatch center. University police officers respond to all campus emergency calls placed through KITTCOM.

In addition to the commissioned officers, the department employs two parking enforcement officers, an office manager, a secretarial staff, a switchboard operator, and student employees.

The Department of Public Safety and Police Services employs students in a program called Courtesy Assistance Team (CAT). CAT provides walking companions on campus between buildings, parking lots, or residence halls. The CAT team also checks doors to buildings and conducts a walk-through in buildings that are open. CAT operates nightly, with the exception of holidays, finals week, and breaks, 6:00 p.m. to midnight.

Central Transit provides transportation from campus to various locations in the city of Ellensburg and other points of interest.

## UNIVERSITY CENTERS

Central Washington University operates six university centers and three teaching sites that provide programs on community college campuses across Washington State. The 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. The centers are designed for students who have completed their Direct Transfer Agreement (DTA) associate degree or most of their general education requirements. Visit the University Centers Web site at cwu.edu / centers.

For more information about the University Centers, contact Margaret Badgley, Assistant to the Provost for University Centers and Community College Relations.
Phone: 509-963-3958
E-mail: badgleym@cwu.edu

## CWU-Des Moines

At Highline Community College Higher Education Center
2400 S 240th St.
Des Moines, WA
Mailing address:
P. O. Box 13490

Des Moines, WA 98198
206-439-3800

## Degree Programs:

BS Accounting
BS Business Administration
BS Electronics Engineering Technology
BAEd Elementary Education/ Early
Childhood Education
BS Interdisciplinary Studies-Social Sciences
BAS Industrial Technology
BS Industrial Technology
BAS Information Technology and
Administrative Management
BA Law and Justice
BA Psychology
MS Engineering Technology
MEd Education Administration
MEd Master Teacher
MPA Professional Accountancy

## Minors:

Business
Economics
Industrial Technology
Law and Justice
Psychology
Sociology
Other:
Supply Chain Management Certificate
Principal Certification
Professional Certificate in Teaching

## CWU-Lynnwood

At Edmonds Community College Snoqualmie Hall 20022 68th Ave. W.
Lynnwood, WA 98036
425-640-1574

## Degree Programs:

BS Accounting
BS Business Administration
BAEd Elementary Education/SPED Minor
BAS Food Service Management
BS General Science Teaching
BS Interdisciplinary Studies-Social Science
BAS Information Technology and
Administrative Management
BA Law and Justice
BA Mathematics: Teaching Secondary
MPA Professional Accountancy

## Minors:

Business Administration
Economics
Law and Justice
Psychology
Sociology

## Other:

Certification for Teaching Secondary Mathematics
Supply Chain Management Certificate

## CWU-Moses Lake

At Big Bend Community College
Advanced Technology and Education
Center
7662 Chanute St., room 1442
Moses Lake, WA 98837
509-762-3603

## Degree Programs:

BS Flight Technology
BS Interdisciplinary Studies-Social Sciences MEd Master Teacher

## Minors

Sociology

## Courses in:

Accounting
Business Administration
Teaching Certification
Professional Certificate in Teaching

## CWU-Pierce County

At Pierce College, Ft. Steilacoom
Olympic Building, Third Floor
9401 Farwest Dr. S.W.
Lakewood, WA 98498-1999
253-964-6636
Degree Programs:
BAEd Elementary Education/
Literacy Minor
BS Interdisciplinary Studies-Social Sciences
BA Law and Justice
BS Social Services
Minors:
Law and Justice
Psychology
Social Services
Sociology

## Other:

Teaching English as a Second Language Certificate

## CWU-Wenatchee

At Wenatchee Valley College
1300 Fifth St.
Wenatchee, WA 98801
509-665-2600

## Degree Programs:

BAEd Elementary Education/TESL Minor
BS Interdisciplinary Studies-Social Sciences MEd Master Teacher

## Minors:

Sociology
Courses in:
Accounting
Business Administration
Teaching Certificate

## Other:

Professional Certificate in Teaching

## CWU-Yakima

At Yakima Valley Community College
Deccio Higher Education Center 1000 S. 12th Ave., Yakima, WA 98902
509-574-6894
Degree Programs:
BAEd Early Childhood Education
BAEd Elementary Education/TESL Minor

BS Interdisciplinary Studies-Social Science BA Law and Justice

## Minors:

Law and Justice
Psychology
Social Services
Sociology
Courses in:
Accounting
Business Administration
Reading Specialist
Master Teacher

## Other:

Professional Certificate in Teaching

## Teaching Sites

CWU at Everett
Everett Community College
Gray Wolf Hall
2000 Tower St.
Everett, WA 98201
425-259-8900

## Degree Programs

BAS Information Technology and
Administrative Management
BS Interdisciplinary Studies-Social Sciences

## CWU at Kent

Green River Community College-Kent
Campus I
417 Ramsay Way, Suite 112
Kent, WA 98032
253-856-9595 x5350

## Degree Programs

BAEd Elementary Education/Middle Level Science

## Certificates

Endorsement for Teaching Middle School Math

## CWU at Mt. Vernon

Skagit Valley College-Mt. Vernon campus
2405 E. College Way
Mt. Vernon, WA 98273
425-259-8603
Degree Programs
BS Interdisciplinary Studies-Social Sciences


## UNDERGRADUATE ADMISSIONS

## General Information

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

The priority deadline for fall quarter application for freshmen and transfer students is April 1. Applications received after April 1 will be processed on a space-available basis. For freshmen applicants that apply for fall quarter prior to November 1 and have a completed admissions file, the Office of Admissions will respond on November 1. Students that apply and have completed application after November 1 will be notified of an admissions decision within four to six weeks. For the most current information and admissions deadlines for other academic quarters, please visit www.cwu.edu/ admissions.

## Freshmen Applicants

Freshmen applicants (students currently enrolled in high school or high school graduates who have earned fewer than 40 college credits after high school graduation) must send official copies of all high school and college transcripts, as well as ACT or SAT scores, to the Office of Admissions. Freshmen applicants are offered initial admission if they meet a minimum admissions index, which is determined by a formula that weighs high school GPA and standardized test scores in a ratio of approximately $3: 1$. The formula was developed by the Washington Higher Education Coordinating Board (HECB). For the 2009-10 academic year, the minimum admissions index is 28 . Freshmen applicants must also complete the following College Academic Distribution Requirements (CADR) courses in high school.

## Required

English

Mathematics

Social Studies

Lab Science
4 credits, including study of the English language, literature, and composition

3 credits, including algebra, geometry, advanced algebra/ trigonometry (or Integrated 1, 2, 3)

3 credits, including U.S. history and government

Foreign Language

Fine, Visual, and Performing Arts

2 credits of the same foreign language, Native American language, or American Sign language

1 credit of fine, visual, or performing arts or electives from any of the above categories

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

## College Credit Earned While in High School

Regardless of the number of college credits completed, students earning college credit while in high school will be considered freshmen for admissions purposes as long as they do not take coursework after graduation from high school (including summer). Running Start students and others with college credit are eligible for all freshmen scholarships and must live on campus for their first year. CWU accepts most college credit earned while in high school, including programs such as:

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


## Homeschool Applicants

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

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


## Transfer Applicants

Transfer students who have earned 40 or more college-level credits ( 27 semester credits) must send official copies of all college transcripts to the Office of Admissions. Generally, transfer students who have completed at least 40 college-level transferable credits with at least a 2.5 cumulative GPA will be admissible. Students who have completed college-level math and English and those who have completed a Direct Transfer Associated degree (DTA) will do better in the comprehensive review process. A current list of DTA degrees is available online at www.cwu.edu / ~regi/equivalencies / 07Acceptable_AA2.pdf. For current information and application deadlines, visit www.cwu.edu / ~admissions.

If your GPA is below 2.5 from any previous college attended, you are required to answer the application essay questions, and your application will go through the comprehensive review process. The admissions review committee takes into account your grade trend, the number of transferable credits you have completed, and type of coursework completed, including college-level English and math completion.

## Comprehensive Admissions Review Process

Central recognizes that many factors affect grades and test scores, so the university utilizes a comprehensive admissions review process. Freshmen applicants whose admissions indices are below 28 , or who are missing any of the high school core course requirements, or transfer applicants whose GPA is below 2.5 from any previous college attended, will need to complete the essay portion of the admissions application. The application will go through the comprehensive review process.

The essay questions, included on both the online and printed version of the application, are:

- How have your past experiences influenced your academic record?
- What are you presently doing to ensure your academic success?
- What are your academic goals and how will CWU help you accomplish these goals?
You are encouraged to include your involvement and leadership contributions in your home, school, or community in your essay.

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

## International Students

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

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

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

- English Composition Courses Receive a 3.0 (B grade) in each of two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions at international@cwu.edu to find out what courses are acceptable.
- Undergraduate English as a Second Language (UESL) Program Recommendation
Receive a recommendation from CWU's UESL Program after successful completion of their highest level. CWU also offers Conditional Admissions to students who meet all of the requirements other than English proficiency. For more information and application materials visit www.cwu.edu / ~esl.
- Test of English as a Foreign Language (TOEFL)
Receive a TOEFL score meeting the following criteria:
A score of 525 or above-Paper-based TOEFL
A score of 195 or above-Computer-based TOEFL
A score of 71 or above-Internet-board TOEFL
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.

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

There are three ways of applying to Central Washington University:

1. Apply online.

With this option you will submit your application electronically with the online application form and pay your \$50 application fee electronically using a credit card.
2. Download and print copies of required application forms.

Links to downloadable forms in PDF (Portable Document File) format are found online on the CWU Web site. Once completed, your forms and supporting documents should be returned to the CWU Office of Admissions in person or through the mail.
3. Request needed forms be sent to your address.

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

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

Students who submit international college or university transcripts must have an official course-by-course translation and evaluation done by one of the following foreign credential evaluation companies:

Foundation for International Services (FIS) Inc. at www.fis-web.com/cwu.

AACRAO Foreign Credentials Evaluation Services www.aacrao.org/international/ foreignEdCred.cfm.

World Education Services (WES)
www.wes.org/students/index.asp.

## Re-admission of Former Students

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

Affairs and Enrollment Management for reapplication instructions 30 days prior to the start of the quarter for which the student is applying.

## Confirmation of Admission

Students who are offered admission to the university must confirm their intention to enroll by paying a non-refundable $\$ 100$ confirmation fee before they can begin the orientation, registration, and advising process. The university will not withdraw an offer of admission for fall quarter until after May 1. Students who have not confirmed may be denied admission after that time if enrollment limits have been reached. Students who choose not to accept offers of admission must notify the Office of Admissions in writing. An offer of admission is only valid for the academic quarter indicated in the acceptance letter. A student who chooses not to accept an offer of admission may reapply for a subsequent quarter.

## Withdrawal of Offer of Admission

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

## Non-matriculated Student Application

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

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

## High School Enrichment Program

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

To be eligible for the High School Enrichment Program, students must have demonstrated superior academic performance or preparation in the area of study for which they are applying. High School Enrichment Program applicants must submit official copies of their high school transcript. Some courses may require that the student submit ACT, SAT, or COMPASS scores in order to qualify for placement into those courses. In addition, they must complete the High School Enrichment application. They must also meet with the registrar and have the approval of their high school principal and the course professor.

## Central Visitation Program

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

The Central Visitation program offers a variety of programs to help you explore CWU:

- Campus Tour: Campus walking tours are offered Monday through Friday at 10 a.m. and 2 p.m. Weekend tours are offered Saturday at 11 a.m. by appointment only. Check the Web site for a list of available dates. Tours check in and start from Mitchell Hall and continue with a full tour of campus. Tours are expected to last at least one hour and 15 minutes depending on the size of the group. Please remember to wear appropriate shoes and clothing for the time of year.
- Cat Tracks: Cat Tracks is a day-long, comprehensive visit to CWU. This studentrun program is a great way to experience campus life firsthand while learning about a specific program. Space is limited so be sure to sign up early.
For the most current information, dates, and times, visit
www.cwu.edu/ ~admissions/index.
php?page=visit-cwu or call 509-963-1262.



## TRANSFER CREDIT

## Equivalency Guides and Policies

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

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

## Advanced Placement Credit

Students may receive credit, or advanced placement, or both, depending upon the scores achieved on the College Entrance Examination Board Advanced Placement Test (AP). Students must request that their AP test scores be sent to the Registrar's Office at Central. Scores of 3 or better on Advanced Placement Examination will be awarded as free electives for departments without specific policy.

| Department | AP Score | CWU Credit |
| :--- | :--- | :--- |
| Art | $3,4,5$ | Department Electives <br> Biology |
|  | 3 | Credit for BIOL 101 |
| Chemistry | 3 | Credit for any two of BIOL 101, 110, 111, 112 <br> Exempt from CHEM 181, 181LAB; credit awarded upon |
|  | 4 | successful completion of CHEM 182 <br> Exempt from CHEM 181, 181LAB, 182, 182LAB credit for <br> both courses awarded upon successful completion of |
|  |  | CHEM 183 and CHEM 183LAB |
| Computer Science A | 3,4, | Credit for CHEM 181, 181LAB, 182, 182LAB, 183, 183LAB |
| Computer Science A | 5 | Credit for CS 110 |

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

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

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

Academic associate degrees which are part of the Direct Transfer Agreements (DTA) between the university and Washington community colleges will meet the general education requirement of a bachelor's degree. Community colleges offer several kinds of associate degrees, therefore, students who plan to transfer to the university should check with their counselors to make sure they are enrolled in the appropriate direct transfer degree program. Students who earned the AA degree prior to the date of the DTA between the university and individual community colleges may petition the provost or his designee for acceptance of their degree to meet general education requirements.

Associate of Science degrees with transfer agreements between the university and Washington community colleges will meet the general education requirements of a bachelor's degree when students complete additional courses at CWU. Transfer students without a transferable associate degree from a Washington State community college wishing to complete such a degree must complete it by the time they have completed 45 credits or within one calendar year, whichever comes later, after initial enrollment at Central in order for the AA degree to satisfy the general education requirements at Central. A student cannot earn an associate degree and bachelor's degree in the same quarter.

Academic associate of art degrees from a public community college outside of Washington State; accredited by the Northwest Commission on Colleges and Universities (NWCCU) will meet the general education requirements of a bachelor's degree.

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

## College-level Examination Program

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

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

## International Baccalaureate

Central recognizes the International Baccalaureate (IB) program as a coherent, challenging course of study and responds individually to each participant's IB transcript for award of college credit. Students may be awarded credit for completing individual areas of study within the program. IB students should submit transcripts to Registrar Services, which will review their program of study and examination scores with the appropriate department chair.

## Credit for Military Service

Upon submission of the DD214 or DD295, matriculated students may receive up to 30 lower-division elective credits for completion of military schools as recommended by the American Council on Education.

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

Credit will be accepted from non-U.S. institutions of higher education when (1) it has been earned at an institution linked to CWU either by a bilateral or consortial, e.g.,

## College-level Examination Program

CLEP Test Scores for Central Washington University at the 50th Percentile or Above

|  | Percen |
| :--- | ---: |
| Humanities | 50 th |
| Natural Sciences | 50 th |
| Social Science and History | 50 th |
| Chemistry | B gr |
| History US I | 50 th |
| History US II | 50 th |
| Western Civilization I | 50 th |
| Western Civilization II | 50 th |
| Calculus w/Elem. Funct. | 50 th |
| Intro to Psychology | 50 th |
| Human Growth and Development | 50 th |
| Intro Ed. Psychology | 50 th |
| Intro to Sociology | 50 th |
| Info Systems and | 50 th |
| Computer Applications |  |
| Foreign Languages |  |
| Spanish Language | 50 |
| French Language | 50 |
| German Language | 50 |

International Student Exchange Program (ISEP) agreement, or when an institution has been certified by the CWU Office of International Studies and Programs as a legitimate, recognized institution of higher education (tertiary level) within a particular country; (2) the student has received a passing grade recognized by the institution; and (3) an official record or transcript has been received by the university.

## Degrees Offered

Central Washington University offers the following undergraduate degrees:
Bachelor of Arts
Bachelor of Arts in Education
Bachelor of Fine Arts
Bachelor of Music
Bachelor of Science
Bachelor of Applied Science
Students wishing to earn a BA, BAS,
BFA, BM, or BS degree must complete
(1) the general education program; (2) a concentration of at least 60 credits which may be satisfied by a specified major, or a specified major and minor, or a specified major and courses in other fields as prescribed by the major department; (3) electives in sufficient quantity to bring the total quarter credits to 180; and (4) other degree requirements as specified. Major fields of study are listed below. Minor concentrations are offered in many fields.

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


## 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. Tuition for 2010-2011 is not available at this time. The tuition rates shown below are an estimate. Refer to the online version of the catalog for updates. All fees are subject to change without notice.

## Undergraduate and postbaccalaureate

students registering for $\mathbf{1 0 - 1 8}$ credits:
Quarterly tuition fees for residents of the state of Washington, \$2,067
Quarterly tuition fees for nonresidents of the state of Washington, \$5,614

Undergraduate and postbaccalaureate students registering for nine credits or less:
Resident - for each credit, \$206.70
Minimum of \$413.40
Nonresident - for each credit, \$561.40
Minimum of $\$ 1,122.80$
Graduate (Master's Degree)
students registering for 10-18 credits:
Resident graduate - \$2,563
Nonresident graduate - \$5,724
Graduate (Master's Degree)
students registering for nine credits or less:
Resident graduate - for each credit, \$256.30 Minimum of \$512.60
Nonresident graduate - for each credit, \$572.40
Minimum of \$1,144.80
Students registering for more than 18 credits: Undergraduate and post-baccalaureate, Resident - for each credit over 18, $\$ 185.90$ Nonresident - for each credit over $18, \$ 540.60$ Resident graduate - for each credit over 18, \$235.50
Nonresident graduate - for each credit over 18, \$551.600

## Continuing Education Tuition and 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 Nonresident 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 the Office of Admissions. 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 halftime appointment, or dependent child of such a person.

## Out-of-state Applicants

To qualify as a Washington State resident, a student must be a US citizen or have permanent resident (resident alien) status. A student must also be 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 by submitting proof of military assignment. A student cannot qualify as a Washington resident if $\mathrm{s} / \mathrm{he}$ (or parent, in the case of a dependent) has attended college as a resident of another state within a year prior to enrollment; has received financial assistance from another state, including reciprocity awards, within a year prior to enrollment; or possesses a current out-ofstate driver's license, vehicle registration, or other document which gives evidence of being domiciled in another state. For further information, contact the Office of Admissions at 509-963-3001.

Residency questions should be directed to the Office of Admissions. Residency requirements are subject to legislative change.

## Senior Citizens

## Non-Matriculated Student Application

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 for summer.

## Veterans Conflict Tuition Waiver

Waivers for veterans follow the enactment of Substitute House Bill 1174. Substitute House Bill 1174, which was adopted as Chapter 249, Laws of 2005, changed the definition of eligible veterans and eligible members of the National Guard. Under the new law, an eligible veteran means an active duty or reserve military member or a national guard member called to active duty, whose permanent home state is Washington, and who served in active federal service in a war or conflict fought on foreign soil, or in international waters, or who served in support of those serving on foreign soil or in international waters. This waiver replaces all other military conflict waivers awarded in the past by CWU and is not available in summer. For further information, contact the Veterans Center at 509-963-3028 or e-mail va@cwu.edu.

## 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 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. An employee who has met university admission requirements and filed 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. Refer to CWU academic policy 2-2.15 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 being called to active duty in the Armed Forces of the United States.

## Miscellaneous Fee Schedule

Fees are subject to change for the 20102011 academic year.

Application for Admission Fee: $\$ 50$, plus a $\$ 100$ non-refundable confirmation fee will be assessed and applied toward your tuition.
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.
Athletic Fee: $\$ 42$ mandatory fee per quarter for all students. Students with less than 10 credits will be assessed $\$ 4.20$ per credit.
Health and Counseling Fee: $\$ 72$ per quarter for all campus-based students enrolled for
six or more credit hours. Fees will vary during summer session; review the Summer Session handbook for current fee.

Technology Fee: $\$ 25$ mandatory fee for all students. Students with less than 10 credits will be assessed $\$ 2.50$ per credit.
Audit Fee (without credit): A student enrolling in a course as an auditor is charged regular fees.
Breakage Fee: Students enrolled in certain courses are required to pay for any equipment they break. Fees are variable according to the item broken.
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 Fees: The fee for a non-teaching baccalaureate degree is $\$ 30$. The fee for a teaching baccalaureate degree is $\$ 72$. An additional $\$ 12$ will be assessed for concurrent degrees. The fee for degree reapplication is $\$ 20$. Cost for regalia is updated each year on the Wildcat Shop Web site located at www.wildcatshop.net.
Transcript Fee: $\$ 7$ for each copy. $\$ 15$ 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.
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 Cashiers Office.
Safe Ride Fee: $\$ 3$ per quarter. No fee for Summer Session.
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.
International Studies Application Fee: A fee of $\$ 50$ per student per quarter for students participating in study abroad or exchange programs.
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 the binding of three copies of their thesis. Two copies are deposited in the library and one copy is given to the student. Students not needing 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.
Supply and Equipment Fees: Students enrolling in certain courses are charged for supplies and equipment not furnished as part of the course.

Late Fee: Students failing to pay their tuition in full by the published deadline are assessed a $\$ 50$ 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 department chair and dean after the 10th day of classes.
Recreation Center Fee: $\$ 95$ per quarter for all Ellensburg campus-based students enrolled for six credits or more.

Registration Cancellation Fee: $\$ 50$. 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.
SURC Building Fee: $\$ 64$ per quarter for all Ellensburg campus-based students enrolled for 10 credits or more. Students with less than 10 credits will be assessed $\$ 6.40$ per credit. Students with one credit will be assessed the same as the two credit fee, \$12.80.

Tuition Nonpayment Fee: Students who have not paid full tuition by the 30th calendar day of the quarter will be assessed a $\$ 75$ 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-centric (WC) and Web (WW) courses.

## Financial Obligation

Admission to or registration with the university, conferring of degrees, and issuance of academic transcripts may be withheld for failure to meet financial obligations to the university. Payment received from students will be applied in the following priority: 1) oldest charge; 2) tuition and course fees; 3) housing and dining charges; 4) other charges.

Registration, by telephone or in person, obligates students for payment of all tuition and fees. If tuition is not paid by the due date, students will be assessed a $\$ 50$ late fee and be liable for any other reasonable collection costs and charges.

## ACADEMIC AND GENERAL REGULATIONS

## Academic Advising

All students are expected to seek, and the university is expected to provide, appropriate advising resources. These resources may include (but are not limited to) general university advisors, specific faculty advisors, special program advisors, career development counselors, advising seminars, advising workshops, and advising publications. General advising is available at the Academic Advising Center located in Hertz Hall, room 107. Faculty advisors are responsible for providing general education, as well as major program advising. Students are also encouraged to seek advice from various faculty concerning specific areas of interest or from faculty who serve as general advisors.

Continuing freshmen are required to meet with their general academic advisor located in Hertz Hall or departmental advisor during Advising Week, which takes place the week prior to early registration. During this meeting the student and advisor will discuss the appropriateness of the student's schedule in obtaining their career and academic goals. Students are required to meet with their advisor the quarters after they have obtained their 75th and 115th credits. During this meeting the student and advisor will discuss the students' academic plan for either being admitted into the major or for completing the major and university requirements needed to graduate. It is strongly suggested that all other continuing students also meet with their advisors during Advising Week.

## Admission to Major

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

Students who have earned 100 or more credits and who have not applied and been admitted to a major or pre-major will not be permitted to register for classes until they submit a completed report of pre-major advising to Registrar Services indicating that they have discussed a major with a faculty advisor. Otherwise, students who have not been admitted to a major or pre-major prior to 100 credits will be given last priority during early registration.

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

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

## Registration

Currently enrolled students may register for courses by using Safari, the Web registration system. Registration for new and readmitted students will take place during new student orientation.

Registration for new or readmitted students that did not register during the new student orientation or continuing students that did not register during their designated enrollment appointment, can register during the open enrollment period designated in the annual registration handbook.

Students may change their schedule during the designated change of schedule period. Students are encouraged to use the Safari 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 a late fee and for any other reasonable collection costs and charges.

Consult the annual registration handbook that is available at Registrar Services or the university center administration office to determine exact dates for early registration, open enrollment, tuition deadlines, and the change-of-schedule period. The registration handbook is also available on the Web at www.cwu.edu / ~regi.

## Academic Credit

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

CWU operates on a quarter system and gives quarter credit. Other colleges operate on a semester basis (i.e., divide the academic year into two parts, exclusive of summer) and give semester credits. Quarter credits multiplied by two-thirds equal semester credits. Semester credits multiplied by one-and-one-half equal quarter credits.

## Course Numbering and Class Standing

Courses are numbered sequentially from 100 through 700. Those numbered 100 are pre-collegiate and credits earned in such courses are not accepted toward meeting degree requirements. Undergraduate courses are numbered 101 through 499 and graduate courses are numbered 501 and above. Courses numbered 500 are professional development courses and are not accepted toward meeting degree requirements.

## Lower Division

Freshman 101 through 199
Sophomore
200 through 299
Upper Division
Junior
300 through 399
Senior
400 through 499
Students may enroll in courses one year ahead of their present status except when otherwise specified in the course description. A student's class standing is determined by the number of credits earned and / or accepted upon transfer. The following table lists the credits required for each class:

| Freshman | $0-44.9$ |
| :--- | :--- |
| Sophomore | $45-89.9$ |
| Junior | $90-134.9$ |
| Senior | 135 or more |

Students holding bachelor's degrees are considered post-baccalaureate if the student is pursuing a second degree or CWU certification program. Students that are admitted to a master's degree program are considered graduate students. Satisfying graduation requirements depends not only on the number of credits completed (a minimum of 180 ) but also on completion of all other degree requirements.

## Student Study Load

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

## Undergraduate:

15 credits - Standard undergraduate load 18 credits or fewer - No permission required 19-20 credits - Major advisor and major department chair approval required, or Advising Center for undeclared majors.

Over 21 credits - Major advisor and major department chair approval as well as the appropriate college dean.
A 2.8 or higher cumulative GPA is recommended for students seeking an overload.

## Graduate:

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

## Proficiency Requirements

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

## Seniors in Graduate Courses

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

## Auditing a Course

Students eligible to enroll in a course for credit may enroll as an auditor provided space is available and permission is secured from the instructor prior to registration. To receive credit for an audited class, students must enroll for credit in and repeat the 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

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

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

## Leave of Absence

Students who do not enroll for consecutive academic quarters (exclusive of summer) must reapply for admission. However, if students meet the criteria below, they may be granted a leave of absence, which means that they do not have to reapply for the following quarter and that they may register early for classes as continuing students at the designated time.

1. The application for leave of absence must be submitted to Registrar Services on or before the last day of the quarter (including summer) prior to the quarter for which the student is seeking leave.
2. Leaves will be approved only if attending consecutive quarters would present an exceptional hardship or loss of opportunity.
3. Students seeking leave for more than one quarter must re-apply each quarter for the following quarter.

## 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. Failure to do so may result in failing grades. There is no refund of tuition and fees if total withdrawal occurs after the

30th calendar day of the beginning of the quarter. See refund policy for specific details.

## Military Exigency Withdrawal

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

- Students who must withdraw from the university during the first third of the quarter will be granted a total university withdrawal (W).
- Students who must withdraw from the university during the second third of the quarter may request either an uncontested withdrawal (+W) or an incomplete (I) in each course with specified deadline for completion to be determined by the dean in consultation with the instructor or a total university withdrawal from all courses (W).
- Students who must withdraw from the university during the last third of the quarter may request an uncontested withdrawal (+W) or an incomplete (I) or credit if the coursework is satisfactory, to be determined by the dean in consultation with the instructor or a total university withdrawal from all courses (W). If credit is awarded, the instructors must report either a letter grade or a satisfactory (S) for each course depending upon the quality of the student's work. If credit is received and the course(s) complete(s) all requirements for the baccalaureate degree, the degree will be awarded.
- Students being called to active duty will be placed on a leave of absence until their return, at which time they will be reactivated, so they will not need to reapply to the university. 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:

| Grade | Grade Points per Credit |
| :--- | :---: |
| A | 4.0 |
| A- | 3.7 |
| B+ | 3.3 |
| B | 3.0 |
| B- | 2.7 |
| C+ | 2.3 |
| C | 2.0 |
| C- | 1.7 |
| D+ | 1.3 |
| D | 1.0 |
| D- | 0.7 |
| F | 0.0 |

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 <br> the university |
| + W | Uncontested withdrawal from <br> a course |
| HW | Hardship withdrawal from <br> 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.

Registrar Services will send notification of the incomplete grade to the student based on the information provided by the instructor. 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 undergraduate students, the "IP" grade is used when the student was not able to be evaluated by the end of the term, usually because instruction is not yet completed. " IP " is used for special circumstances within programs such as flight technology, international studies, and cooperative education.

For graduate students, " IP " is used for thesis, project study, and organization development courses that normally extend beyond a single term.

All uses of the "IP" grade must be submitted to and approved by the registrar. A letter grade is issued when the course is completed and recorded by the registrar, upon receipt of the Change of Grade form submitted by the instructor. If a grade is not submitted to the registrar within one calendar year, the "IP" will automatically be changed to " F " by the registrar.

## Grade Point Average

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

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

Dividing 42.4 by 17 gives a grade point average of 2.49. In computing cumulative grade point averages, only work attempted at Central will be included in the computation, with the following exception: cumulative grade point average for students in the Teacher Preparation Program will include all coursework from all colleges attended. Within the major, minor, and professional education option, grades earned in all allowed courses are used. Credits earned at other institutions
are accepted in meeting degree requirements according to the limits described under bachelor's degree requirements.

## Credit/No Credit Option

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

The courses must be selected from free electives; they must not be courses 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 option are not included in computing the grade point average. The grade recorded on the student's transcript will be "CR" if the course grade is C- or above; if below C-, the entry will be "NC."

## Statute of Limitation on Grade Changes

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

## Grade Reports

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

## Honor Roll

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

## Grade Appeal Procedure

Students who believe they have been improperly graded should first attempt to resolve the matter with the instructor. If resolution is not achieved, the student may
appeal the grievance to the department chair. Failing resolution at that level, the grievance may be submitted to the college dean.
Finally, if the grievance is not resolved at the dean level, the student may petition for a hearing with the board of academic appeals. For details, contact the Office of the Vice President for Student Affairs and Enrollment Management.

## 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


## Scholastic Standards

Academic standards are established by the faculty. The vice president for student affairs and enrollment management has responsibility for implementing these standards. A student's academic standing appears on the quarterly grade report or unofficial transcript located on Safari. Questions about academic standing should be directed to the Office of Student Affairs and Enrollment Management (Bouillon Hall, room 204).

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

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

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

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

Immediately after grades are submitted, the vice president for student affairs and enrollment management reviews the academic files of all suspended students and makes one of three decisions:

- The student may be allowed to register for one more quarter with an academic standing of probation.
- The student may be allowed to submit a petition presenting evidence of circumstances beyond the student's control which adversely affected the student's performance during the preceding quarter(s). If the petition presents convincing evidence of such extenuating circumstances, the student will be referred to the academic standing committee. The committee will hear the student's case and may decide to allow the student to enroll for one more quarter on academic probation.
- The student may be denied enrollment for one year, following which a written petition for readmission must be presented to the vice president for Student Affairs and Enrollment Management; however, readmission is not guaranteed.
A letter will be sent to the student informing him or her of the vice president's decision.


## Academic Forgiveness

An undergraduate student may petition the registrar in writing for academic forgiveness if all of the following criteria are met:

1. The student returned to CWU after an absence of at least five years;
2. The student's CWU cumulative GPA at the time of leaving was below 2.0; and
3. The student has earned at least a 3.0 GPA in at least 45 credits since returning to CWU.
If academic forgiveness is granted, the previous credits and grades at CWU will remain on the student's transcript but will not be used in the calculation of the cumulative GPA, and the student will be in good standing. Only the grades earned since returning to CWU will be used in computing the CWU cumulative GPA.

The student may request a review of the registrar's decision by the board of academic appeals and academic standing. A petition for academic forgiveness may be granted only once. Unless academic forgiveness is granted, the GPA at CWU will include all CWU grades for all courses. The forgiveness
policy does not extend to calculating GPA of major or to honors.

## Class Attendance and Participation

Instructors may require regular class attendance. The first day of the quarter is the first day of instruction listed in the university calendar. An instructor may drop a student from the class by notifying the registrar if the student has failed to attend the class by the end of the third day of the quarter or the first class meeting if the class does not meet during the first three days of the quarter. Students 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:

1. Scheduling of such activities shall not overlap with official final examination periods.
2. Scheduling of such activities shall not require an absence of more than three consecutive class days.
3. Scheduling of such activities shall be announced to the students far enough in advance for them to plan to fulfill course requirements.
4. 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 athletics representative. University academic requirements for participation require the student athlete to meet the requirements of those athletics organizations as well as:

- Maintain a 2.0 accumulative 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. 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).
- 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.


## Course Challenge List

Special courses such as "Individual Study," "Special Topics," "Cooperative Education," "Workshops," and "Seminars" may not be challenged for credit.
Accounting: no courses are offered for challenge
Aerospace Studies: no courses are offered for challenge
Administrative Management: 201 and 271
Anthropology: all undergraduate courses with chair's approval
Art: all undergraduate courses with chair's approval, except 101
Biological Sciences: no courses are offered for challenge
Chemistry: all undergraduate courses, except laboratory courses
Communication: 101, 250, 252, 340, 350, and 445

Computer Sciences: all undergraduate courses with chair's approval
Early Childhood Education: no courses are offered for challenge
Economics: no courses are offered for challenge
Education: all undergraduate courses with chair's approval
English: no courses are offered for challenge
Environmental Studies: no courses are offered for challenge
Ethnic Studies: all 100 and 200 level courses with the director's approval
Family and Consumer Sciences: FCSA 150
Finance: no courses are offered for challenge
Flight Technology: all courses with departmental approval
Foreign Languages: all undergraduate courses with chair's approval
Geography: no courses are offered for challenge
Geology: no courses are offered for challenge
Health Education: HED 101
History: 101, 102, 103, 143, and 144
Humanities: 101, 102, and 103
Industrial and Engineering Technology: all undergraduate courses with chair's approval
Information Technology: 101, 204, 228, 248, 258,268 , and 288
Law and Justice: no undergraduate courses
Management: no courses are offered for challenge
Mathematics: all undergraduate courses numbered above 170
Military Science: all 100 and 200 level courses.
Music: all undergraduate courses except applied lessons, class lessons, and performing groups
Nutrition: NUTR 140, 140LAB, 240, 240LAB, $245,340,340 \mathrm{LAB}, 341,345,348,440$, 440LAB, 441, 442, 443, 444, 445, 446, 447, and 448
Paramedics: EMS 245, 319, and 345
Philosophy: all undergraduate courses Physics: no courses are offered for challenge
Political Science: no courses are offered for challenge
Psychology: all undergraduate courses with the chair's approval
Recreation and Tourism: no courses are offered for challenge
Religious Studies: all undergraduate courses Safety Education: no courses are offered for challenge
Social Science: no courses are offered for challenge
Sociology: all 100 and 200 level courses with the chair's approval
Theatre Arts: 107, 166, 363, 364, 365, 371, 373, 381 , and 383

## Course Substitutions

Students may petition the appropriate department chair if they wish to substitute courses within degree requirements. Course substitutions may not conflict with general university policy.

## 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 vice president for student affairs and enrollment management.

## Required Participation in Assessment Activities

Students are required to participate in assessment activities at several points during their academic careers. They will be assessed for placement into English 101, Math 101, and above upon entering CWU as freshmen. Students with deficiencies in English usage/ reading or computation must correct them
prior to enrolling in ENG 101 or MATH 101 and above, respectively.

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

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

Students will be tested for proficiency in English usage, reading, and computation after the student has completed 90 credits but prior to accumulating 110 credits. Departments may establish their own requirements as long as they meet or exceed university standards. Departments may also require students with deficiencies to correct them before being accepted into their major.

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


## GRADUATION REQUIREMENTS

Students are eligible for awarding of a bachelor's degree if they fulfill the following requirements established by the faculty:

## Credits

- A minimum of 180 quarter credits is required; however, students should note that some bachelor's degrees have requirements in excess of 180 credits. Central allows a maximum of 135 quarter ( 90 semester) credits to transfer from regionally accredited four-year institutions. Central allows a maximum of 105 quarter ( 70 semester) credits of lowerdivision (100-200 level) coursework from a regionally accredited community college. Additional coursework that exceeds this amount may be used to meet specific requirements, but additional credits will not be allowed to count toward the 180 credit requirement for graduation.
- A minimum of 60 credits of upper-division study is required. (These are earned in courses numbered 300 and above.) Credits earned in study at the lower-division (courses numbered 100-299) will not be allowed toward meeting this requirement unless the coursework is a direct equivalency for an upper-division course at Central.
- Students must study on the university campus or at an established university center at least three quarters and earn a minimum of 45 credits. Credits earned through industrial or military experience, or through credit by examination may not be used to meet residency requirements.
- No more that 45 total quarter credits through CLEP or other sources of nontraditional credit may apply to graduation.
- Transfer students must earn from CWU a minimum of 10 credits in the major and, if a minor is declared, 10 credits in the minor.
- Cooperative education courses will apply toward graduation requirements, but in no case will a student be allowed to count more than 10 credits at the 290 level nor more than 20 total cooperative education credits toward graduation requirements. No more than 10 credits are accepted in transfer. No more than eight credits may be applied to a graduate degree. Cooperative education courses may be repeated if field experience learning objectives and activities are distinctly different from previous work or field experience.


## Degree Components

- The general education program must be completed as defined in the university catalog.
- Students transferring from Washington State community colleges holding the appropriate academic transfer associate degree will have met the general education program requirements.
- Completion of all requirements for a major as specified by the appropriate department, as defined in the university catalog, is required.
- Completion of a minor is required when the major contains fewer than 60 credits. In that case the total credits of major and minor must total to a minimum of 60 credits.

- Foreign language requirement: students seeking the bachelor of arts (BA) degree must complete one year of college/ university study of a single foreign language or two years high school study of a single foreign language.
- All professional education programs require completion of professional education courses in addition to completion of major requirements.


## Scholastic Requirements

Graduation and graduation with honors are based on credits and grade point averages (GPA) earned at the time the degree is awarded. Once a degree is awarded the academic record is frozen. Changes in grades made after the award of the degree have no effect on the degree. Final responsibility for meeting graduation requirements resides with the student.

- In order to graduate, students must have achieved a cumulative grade point average of at least 2.0 in courses taken at Central.
- Students must also have achieved a cumulative grade point average of at least 2.25 in the major and 2.0 in the minor field of study. All courses fulfilling the major and minor requirements, including courses accepted in transfer, are used in computing the major and minor GPA.
- Specific degree and professional certification programs may have more stringent degree requirements than those specified above.


## Teacher Preparation Program

- Cumulative grade point average of at least 3.0 for the last 45 graded credits, OR an overall (all colleges attended) cumulative grade point average of 3.0.
- Grade point average of at least 2.5 for major, minor, and professional education sequence.


## Application for Degree

Degrees are not automatically awarded when requirements are completed. It is the responsibility of the student to apply for their degree in Registrar Services. Application for the bachelor's degree must be filed by the second Friday of the quarter preceding the quarter in which the degree is to be awarded. Complete instructions and deadlines are available in Registrar Services and through university center offices. Step-by-step instructions may be found at www.cwu. edu / ~regi/graduation_information2.html.

Exceptions to university graduation requirements must be petitioned to the registrar. Approval of exceptions must be obtained from the general education committee, department, or program chair and responsible dean where appropriate. Exceptions in majors or minors and teacher preparation programs must be approved by
the appropriate department chair and college dean or designee. Final responsibility for meeting graduation requirements resides with the student.

## Commencement Participation

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

Application for graduation or receipt of a degree does not automatically qualify a student for commencement participation. Students must complete the online commencement registration form located on the Wildcat Shop's home page at www.wildcatshop.net prior to the published commencement participation deadline. Students should also review the information on the commencement Web site located at www.cwu.edu / ~commencement for the most up-to-date information on the commencement activities and procedures.

Students anticipating graduation the summer quarter following commencement exercises may participate in the graduation ceremony on a space-available basis. Candidates for summer graduation who wish to participate in the spring commencement ceremony prior to issuance of a degree must submit an application for graduation prior to the spring quarter deadline and complete degree requirements by the end of summer quarter. Candidates who have applied for their degree the summer following the June commencement ceremony are not eligible for honors distinction nor will their degree be published in the commencement book until the following academic year.

Students participating in commencement exercises must wear commencement regalia approved by the registrar. Exceptions to commencement procedures are approved by the registrar.

## Graduation with Distinction

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

- At least 75 of the credits required for the degree must be earned at Central with a minimum of 60 credits in courses taken on the A-F graded basis.
- Credits earned by course challenge, CLEP, and other national examinations, military experiences or courses, non-college courses, and industrial experience will not be allowed toward the 75-credit eligibility requirement.
- Honors shall be based on the GPA of all credits earned at Central and all transfer credits accepted by CWU.

Baccalaureate honors are awarded to recipients of a first bachelor's degree according to the following standards:
3.5 to 3.69 - cum laude
3.7 to 3.89 - magna cum laude
3.9 to 4.00 - summa cum laude

Cum laude, magna cum laude, and summa cum laude will be noted on the recipient's diploma and university transcript.

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

Students completing degree requirements during the summer, who are permitted to participate in the preceding spring quarter commencement, will not be eligible for honors recognition until the following spring commencement ceremony.

## Other Distinctions

- At least 75 of the credits required for the degree must be earned at Central with a minimum of 60 credits in courses taken on the A-F graded basis.
President's Scholars are those students who have cumulative GPAs in the top 1 percent of their respective college class. GPA is calculated by existing university policy.

Dean's Scholars are those students who, in the current academic year, have cumulative GPAs in the top 5 percent of their respective college class (but not including the top 1 percent). GPA is calculated by existing university policy.

NOTE: Individual study majors will
be computed with the College of Arts and Humanities majors.

## Concurrent Baccalaureate Degrees

A student may be awarded more than one baccalaureate degree (BA, BFA, BAEd, BAS, BM, BS) at the same time provided that requirements of both the degree programs have been completed. Double majors within the same baccalaureate program do not constitute separate baccalaureate degrees.

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

## Second Baccalaureate Degree

Qualified students seeking second baccalaureate degrees must apply for admission to the university to earn a different type of undergraduate degree associated with a different major. Qualified students are admitted to graduate status; this does not mean that they are enrolled in an "advanced degree program." To receive a second baccalaureate degree, students must complete: (1) all degree requirements not satisfied by the previous degree, and (2) a minimum of 45 quarter credits from Central. Second baccalaureate degree students follow regulations applicable to undergraduates, however, they are not eligible for university honors.

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


## MISSION, RATIONALE, AND STUDENT OUTCOMES

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

## Effective Reasoning

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

## Broad and Deep Learning

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

## The Inclination to Inquire

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

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

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

## General Education Program Goals

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

## BASIC SKILLS REQUIREMENT

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

1. UNIV 101, General Education Colloquium (1), or MUS 104, Introduction to Musical Studies (3). Only required of students who enter Central with fewer than 45 credits
2. ENG 101 (4) and ENG 102 (4). A grade of C- or better is required in ENG 101 before ENG 102 may be taken
3. Either MATH 101 (5), MATH 153 (5), MATH 154 (5), MATH 164 (5), MATH 170 (5), or MATH 172 (5)
4. Either MATH 102 (5), MATH 130 (5), PHIL 201 (5), or CS 105 (4)
5. One year of college or university study of a single foreign language or two years of high school study of a single foreign language. Courses used to satisfy this foreign language basic skills requirement may not be used to satisfy the Philosophies and Cultures of the World breadth requirement.
6. Either CS 101 Computer Basics (4) or IT 101 Computer Applications (3).
All students must have met these basic education requirements by the end of the quarter in which they complete 75 credits. (This does not include the foreign language basic skills requirement, which may require more time to complete.) Students who do not meet this standard will have a hold placed on further course registration. To remove the hold, the student must meet with an advisor and submit a program of study to plan successful completion of this requirement. The student's progress will then be monitored by an assigned academic advisor.

## WRITING REQUIREMENT

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

## WILLIAM O. DOUGLAS HONORS

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

## BREADTH REQUIREMENT

## I. ARTS AND HUMANITIES

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

## Literature and the Humanities

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

- ABS 110 Expressive African American Culture (5)
- ENG 105(W) The Literary Imagination: An Introduction to Literature (4)
- ENG 247(W) Multicultural Literature (4)
- ENG 347(W) Global Perspectives in Literature (4)
- HUM 101(W) Exploring Cultures in the Ancient World (5)
- HUM 102(W) Exploring Cultures from 16th Through 19th Centuries (5)
- HUM 103(W) Exploring Cultures in Modern and Contemporary Societies (5)


## The Aesthetic Experience

- ART 101 Introduction to Western Art (5)
- ART 102 Intro to Non-Western Art (5)
- FVS 250 (W) Intro to Film and Video Studies (5)
- MUS 101 History of Jazz (5)
- MUS 102 Introduction to Music (5)
- PED 161 Cultural History of Dance (4)
- TH 101 Apprec. of Theatre and Film (4)
- TH 107(W) Introduction to Theatre (4)
- TH 375(W) Asian Drama (4)
- TH 382(W) Ethnic Drama (4)

Philosophies and Cultures of the World

- Foreign Languages 251, 252, and 253. Second-year foreign language (same as studied in high school) (5), or Foreign Languages 151, 152, and 153, or CHIN 141, 142, and 143. First-year foreign language (different than the one used to meet basic skills requirement) (5)
- PHIL 101(W) Intro to Philosophy (5)
- PHIL 115(W) The Meaning of Life (5)
- PHIL 202(W) Introduction to Ethics (5)
- PHIL 209(W) Introduction to Asian Philosophy (5)
- PHIL 210(W) Current Ethical Issues (5)
- PHIL 306(W) Environmental Ethics (5)
- PHIL 378(W) The Philosophy of Love (5)
- RELS 101(W) Introduction to Religion (5)
- RELS 201(W) Sacred Books of the World (5)


## II. SOCIAL AND BEHAVIORAL SCIENCES

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

## Perspectives on the Cultures and Experiences

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

- AIS 101(W) Precontact Period of American Indians (5)
- AIS 102(W) Contact Period of American Indians (5)
- AIS 103(W) Emergence of Contemporary American Indians (5)
- ECON 101 Economic Issues (5)
- ECON 201 Principles of Economics Micro (5)
- ETS 101(W) Ethnic Awareness (4)
- HIST 143(W) US History to 1865 (5)
- HIST 144(W) US History Since 1865 (5)
- POSC 210 American Politics (5)
- SOC 101(W) Social Problems (5)
- SOC 305(W) American Society (5)
- WS 201(W) Intro to Women's Studies (5)


## Perspectives on World Cultures

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

- ANTH 130 Introduction to Cultural Anthropology (5)
- AST 102(W) Introduction to Asian Studies (3)
- COM 302(W) Intercultural Communication (4)
- ECON 102(W) World Economic Issues (5)
- ECON 360(W) Contemporary Economic Problems (5)
- GEOG 101 World Regional Geography (5)
- HIST 101(W) World Civilization to 1500 (5)
- HIST 102(W) World Civilization: 1500-1815 (5)
- HIST 103(W) World Civilization Since 1815 (5)
- LLAS 102(W) Introduction to Latino and Latin American Studies (5)
- POSC 270(W) International Politics (5)


## Foundations of Human Adaptations and Behavior

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

- ANTH 107 General Anthropology (5)
- ANTH 120 Introduction to Archaeology (5)
- FS 337(W) Human Sexuality (4)
- GEOG 108 Intro to Human Geography (5)
- HED 101 Health Essentials (4)
- POSC 101(W) Introduction to Politics (5)
- PSY 101 General Psychology (5)
- PSY 205(W) Psychology of Adjustment (5)
- SOC 107(W) Principles of Sociology (5)


## III. THE NATURAL SCIENCES

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

## Fundamental Disciplines of Physical and Biological Sciences

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

- BIOL 101 Fundamentals of Biology and Lab (5)
- CHEM 111 / 111LAB Introduction to Chemistry and Introductory Chemistry Laboratory (5)
- CHEM 181/181Lab General Chemistry I and General Chemistry Laboratory I (5)
- GEOL 101/101Lab Physical Geology and Lab (5)
- PHYS 106 Physics by Inquiry / Lab (5)
- PHYS 111/111Lab Introductory Physics and Lab (5)
- PHYS 181/ 181Lab General Physics and Lab (5)


## Patterns and Connections in the Natural World

Those sciences that use a knowledge of basic scientific disciplines to examine large and complex physical and life systems.

- ANTH 110 Introduction to Biological Anthropology (5) (Lab ANTH 110Lab is optional)
- BIOL 200(W) Plants in the Modern World and Lab (5)
- BIOL 201 Human Physiology (5)
- BIOL 300 Introduction to Evolution (5)
- ENST 201 Earth as an Ecosystem (5)
- GEOG 107 Introduction to Physical Geography (5)
- GEOL 102/101Lab Geology of National Parks and Lab (5)
- GEOL 107 Earthquakes, Volcanoes, and Civilization (5)
- GEOL 302 Oceans and Atmosphere (4)
- PHYS 101 Introductory Astronomy I/ Lab (5)
- PHYS 102 Introductory Astronomy II/ Lab (4)


## Applications of Natural Science

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

- ANTH 314 Human Variation and Adaptation in Living Populations (4)
- BIOL 302 Human Ecology (5)
- CHEM 101 Contemporary Chemistry and Lab (5)
- ENST 202 Ecosystems, Resources, Population, and Culture (5)
- ENST 310(W) Energy and Society (5)
- GEOG 273 Geography of Rivers (5)
- GEOL 108 Introduction to Environmental Geology (5)
- IET 101 Modern Technology and Energy (5)
- NUTR 245 Basic Nutrition (5)
- PHYS 103/103LAB(W) Physics of Musical Sound and Lab (5)
- PHYS 108 Light and Color/Lab (4)
- STEP 101(W) Science Seminar I: Research Experience (2)*
- STEP 102(W) Science Seminar II: Interdisciplinary Research Theme (2)*
- STEP 103(W) Science Seminar III: Current Topics (1)*
*Only open to freshmen students enrolled in the STEP program, and all three courses must be completed with a passing grade to receive credit for Applications of Natural Science breadth area

Departments and majors, specializations, and minors are listed by college in alphabetical order in this section. Courses numbered from 101-299 are lower-division courses, primarily for freshmen and sophomores; those numbered from 300-499 are upper-division courses, primarily for juniors and seniors. The numbers 296, 396, 496 , and 596 designate individual study courses and are available for registration by prior arrangement with the course instructor and approval of the department chair.

The number in parentheses following the course title indicates the amount of credit each course carries. Variable credit courses include the minimum and maximum number of the credits within parentheses.

Not all of the courses are offered every quarter. Final confirmation of courses to be offered, information on new courses and programs, as well as a list of hours, instructor, titles of courses and places of class meetings, is available online in Safari which can be accessed through the CWU home page at www.cwu.edu. A registration handbook is available at Registrar Services or your university center office. This book will assist you in navigating through Safari.

## College of Arts and Humanities

## Art Department

Art Major, BA
Art Major, BFA
Studio Art Specialization Graphic Design Specialization
Visual Art: Teaching Major, BA
Art History Minor
Art Studio Minor
Communication Department
Communication Studies Major, BA
Journalism Major, BA
Print Specialization
Broadcast Specialization
Convergent Media Specialization
Public Relations Major, BS
Advertising Minor
Organizational Communication Minor Communication Minor
Non-profit Organization Administration Minor

English Department
English Language and Literature Major, BA English: Writing Specialization
English/Language Arts Teaching Major, BA
Creative Writing Minor
English Language and Literature Minor Linguistics Minor
Foreign Languages Department
Foreign Language Majors with
Specializations, BA
Foreign Language Broad Area Major, BA
Foreign Language: Teaching Broad Area
Major, BA
Foreign Language: Teaching Major, BA
Spanish Major, BA
Spanish Broad Area Major, BA
Spanish Teaching Broad Area Major, BA
Spanish Teaching Major, BA

Foreign Language Minors Spanish Minor
History Department
History Major, BA
History: Social Studies Teaching, BA
History Minor

## Music Department

Music Theory/Composition Major, BM
Music Vocal Performance Major, BM
Music Keyboard Performance Major, BM
Percussion/ Wind/ String Performance
Major, BM
Music Education Major, BM
Broad Area Specialization
Choral Music Specialization Instrumental Music Specialization
Music Major, BA
Music Jazz Specialization
Music Minor
Non-profit Organization Administration Minor

Philosophy and Religious Studies
Department
Philosophy Major, BA
Religious Studies Specialization
Philosophy Minor
Religious Studies Minor
Ethics Minor
Theatre Arts Department
Theater Arts-General Studies Major, BA
Theatre Arts Major, BFA
Design/Technical Specialization Performance Specialization
Musical Theatre Specialization
Theatre Arts: Teaching K-12 Major, BA
Apparel Design Minor
Musical Theatre for Music Educators and Performance Minor
Theatre Arts Minor
Non-profit Organization Administration Minor

## College of Business

Accounting Department
Accounting Major, BS

## Economics Department

Economics Major, BS
Economic and Business Forecasting Specialization
General Economics Specialization Managerial Economics Specialization
Economics Minor I
Economics Minor II
Finance and SCM Department
Business Administration Major, BS Finance Specialization General Business Specialization Supply Chain Management Specialization
Business Minor
Management Department
Business Administration Major, BS General Business Specialization Human Resource Management Specialization Management and Organizational Specialization Marketing Management Specialization Business Minor

## College of Education and Professional Studies

## Advanced Programs

See the graduate section of this catalog
Aerospace Studies Department (Air Force ROTC)

Aerospace Studies Minor

## Aviation Department

Flight Technology Major with
Specialization, BS
Flight Officer Specialization
Commercial Pilot Specialization
Airway Science: Aircraft Systems
Management Specialization
Aviation Management Specialization
Aviation Maintenance Management Specialization
Flight Technology Minor
Education Foundations and Curriculum Department

Profession Education Program
Family and Consumer Sciences Department
Family and Consumer Sciences Major, BA
Family Major, BS
Family and Consumer Sciences Career and
Technical Education Teaching Major, BS
Fashion Merchandising Major, BS
Global Wine Studies, BS
Recreation and Tourism, BS
Recreation Management Specialization
Tourism Management Specialization
Apparel Design Minor
Family and Consumer Sciences Minor
Family and Consumer Sciences
Education Minor
Fashion Merchandising Minor
Community Recreation Minor
Family Studies Minor
Program Development Minor
Recreation Management Minor
Tourism Management Minor
Wine Trade and Tourism Minor
Industrial and Engineering Technology Department

Electronics Engineering Technology
Major, BS
Computer Engineering Technology Specialization Electronic Systems Specialization Construction Management Major, BS
Construction Safety Minor
Technology Education Broad Area Major, BS
Technology Education Major, BS
Industrial Technology Major, BAS
Industrial Technology Major, BS
Mechanical Engineering Technology
Major, BS
Manufacturing Technology
Specialization, BS
Mechanical Technology
Specialization, BS
Occupational Safety and Health, BAS
Occupational Safety Technology Minor
Safety and Health Management Major, BAS
Safety and Health Management, BS
Industrial Technology Minor
Safety and Health Management Minor
Traffic Safety - Safety Education Minor

Information Technology and Administrative
Management Department
Information Technology and
Administrative Management, BAS
Information Technology and Admin.
Management Major, BS
Administrative Management Specialization, BS
Retail Management and Technology Specialization, BS
Network Administration and Management Specialization, BS
Web and Database Admin. and Management Specialization, BS
Administrative Management Minor or Certificate
Computer Applications Minor or Certificate Retail Management and Technology Minor or Certificate
Web Design and Management Minor
Language, Literacy, and Special Education
Department
Special Education (P-12), BAEd
Special Education (P-12) Broad Area, BAEd
Literacy Minor
Bilingual Education/Teaching English
as a Second Language Minor
Special Education Minor
Teaching English as a Second Language (TESL) Minor
Military Science Department
Military Science Minor
Nutrition, Exercise, and Health Sciences
Department
Exercise Science Major, BS
Clinical Physiology Specialization
Physical Education Exercise Science Minor
Physical Education Athletic Training Minor
Food Science and Nutrition, BS
Foods and Nutrition Specialization
Dietetics Specialization
Food Service Management, BAS
Athletic Training Minor
Exercise Science Minor
Nutrition Minor
Food Service Management Minor
Paramedicine Major, BS
Physical Education, School, and Public
Health Department
Physical Education and School Health, BS
Physical Education Dance Minor
Physical Education Dance: Teaching Minor
Physical Education Coaching Minor
Public Health Major, BS
Community Health Education Specialization
Pre-Nursing in Public Health Specialization
Community Health Education Minor
Teaching Elementary, Adolescent, and Young Children Department

Early Childhood Education Major, BAEd
Elementary Education Major, BAEd
Early Childhood Education Minor

## College of the Sciences

Anthropology and Museum Studies Department

Anthropology Major, BA
Anthropology Major, BS
Museum Studies Specialization

Anthropology Minor
Museum Studies Minor
Non-profit Organization Administration Minor
Biological Sciences Department
Biology Major, BA
Biology Major, BS
Cell and Molecular Biology Specialization
Ecology Specialization
Organismal Biology Specialization General Biology
Biology Teaching Major
Biology Minor
Biology: Teaching Elementary Minor
Biology: Teaching Secondary Minor
Chemistry Department
Chemistry Major, BA
Chemistry Major, BS
Biochemistry Specialization
Chemistry: Teaching Major, BA
Chemistry Minor
Chemistry: Teaching Minor
Computer Science Department
Computer Science Major, BS
Computer Science Minor
Applied Computer Science Minor
Geography Department
Geography Major, BA
Geography Minor
Energy Studies Minor
Geological Sciences Department
Earth Science Teaching Major, BA
Environmental Geological Sciences
Major, BS
Geology Major, BA
Geology Major, BS
Earth Science Teaching Minor
Geology Minor
Law and Justice Department
Law and Justice Major, BA
Law and Justice Minor
Mathematics Department
Mathematics Major, BS
Actuarial Science Specialization
Mathematics: Teaching Secondary
Major, BA
Mathematics Minor
Mathematics: Teaching Secondary Minor
Middle Level Math Teaching Minor
Physics Department
Physics Major, BA
Physics Major, BS
Astronomy Minor
Physics Minor
Political Science Department
Political Science Major, BA
Political Science Minor
Psychology Department
Psychology Major, BA
Psychology Minor
Science Education Department
General Science Teaching, BS
Middle Level Math and Science Teaching, BA
Broad Area Science Teaching Minor
Elementary Education Minor
Middle Level Science Teaching Minor

Sociology Department
Social Services Major, BS
Sociology Major BA
Sociology Major, BS Sociology Minor
Social Services Minor

## Individual and Interdisciplinary <br> Programs

Africana and Black Studies Africana and Black Studies Minor
American Indian Studies Program
American Indian Studies Minor
Asia/Pacific Studies Program
Asia/Pacific Studies Major, BA
Asia/Pacific Studies Minor
Douglas Honors College
Douglas Honors Major
Douglas Honors Minor
Environmental Studies
Environmental Studies Major, BS
Environmental Studies Minor
Ethnic Studies
Ethnic Studies Minor
Film and Video Studies Program
Film and Video Studies Major, BA Critical Studies Specialization Production Specialization
Critical Studies Minor
Visual Literacy Minor
Individual Studies Program
Interdisciplinary Studies Interdisciplinary Studies-Social Sciences, BS

International Studies Program
International Studies Minor University English as a Second Language Program (UESL)

Latino and Latin American Studies Program Latino and Latin American Studies Minor
Pre-Professional Programs
Pre-Dentistry
Pre-Dietetics
Pre-Engineering
Pre-Law
Pre-Medicine
Pre-Nursing in Public Health
Pre-Occupational Therapy
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Veterinary
Primate Behavior and Ecology Program
Primate Behavior and Ecology Major, BS

## Public Policy

Public Policy Major, BS

## Social Science Program

Social Science Major, BA
Social Science: Teaching Secondary Major, BA
Women's Studies Program
Women's Studies Minor

# COLLEGE OF ARTS AND HUMANITIES 

## Administration and Organization

Dean
Marji Morgan, PhD (Hebeler Hall, room 202)

## Associate Dean

Michael Chinn, MFA (Hebeler Hall, room 202)
509-963-1858
Fax: 509-963-1851
www.cwu.edu / ~cah/

## Mission

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

## Vision

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

## Departments and Programs

Africana and Black Studies: Bobby Cummings, PhD/Paulus Pimono, PhD (Michaelsen Hall, room 104/Language and Literature Bldg., room 408F)
Art: Liahna Armstrong, PhD (Randall Hall, room 100)
Asia/Pacific Studies Program: Jeffrey Dippmann, PhD (Language and Literature Bldg., room 337C)
Communication: Lois Breedlove, MA
(Bouillon Hall, room 232A)
English: George Drake, PhD (Language and Literature Bldg., room 423)
Film and Video Studies Program: Michael Ogden, PhD (Bouillon Hall, room 225)
Foreign Languages: Joshua Nelson, PhD (Language and Literature Bldg., room 102S)
History: Karen Blair, PhD (Language and Literature Bldg., room 100)
Latino and Latin American Studies Program: Stella Moreno, PhD (Language and Literature Bldg., room 102J) and Christopher Schedler, PhD (Language and Literature Bldg., room 416E)
Music: Todd Shiver, DMA (Music Building, room 144)

Philosophy and Religious Studies: Chenyang $\mathrm{Li}, \mathrm{PhD}$ (Language and Literature Bldg., room 337)
Theatre Arts: Scott Robinson, MFA
(McConnell Hall, room 106)

## Affiliated Programs

American Indian Studies
Patrick McCutcheon, PhD
Farrell Hall, room 337
509-963-2075
Environmental Studies
Carey Gazis, PhD
Lind Hall, room 219
509-963-2820
Ethnic Studies
Delores Cleary, PhD
Farrell Hall, room 409
509-963-2172
Women's Studies
Cynthia Coe, PhD
Language and Literature Building, room 318 509-963-2008

## ART DEPARTMENT

Ellensburg
Randall Hall, room 100
509-963-2665
Fax: 509-963-1918
www.cwu.edu / ~art
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Liahana Armstrong, PhD

## Professors

Michael Chinn, MFA, wood design, design
Keith Lewis, MFA, jewelry and
metalsmithing, design
Glen Bach, MFA, graphic design

## Associate Professors

Maya Chachava, MFA, painting, drawing
Shari Stoddard, PhD, art education

## Assistant Professors

Paula Airth, MFA, graphic design
Alex Emmons, MFA, photography and digital imaging
Stephen Robison, MFA, ceramics

## Lecturers

Joan Cawley-Crane, MA
Chris Hinrichs, BA
Heather Horn-Johnson, MA
Margo Selski, MFA

## Staff

Jeff Cleveland, department maintenance
Heather Horn-Johnson, gallery manager
Sharon Jonassen, secretary

## Departments and Programs

The Department of Art is the primary agent for the study and practice of visual culture. Our faculty facilitates liberal learning and academic excellence to enable our
students to assume their respective roles as practitioners, educators, and informed patrons of the visual arts. Degrees are offered in studio art, graphic design, and art education with allied course offerings in art history and criticism. We also offer minors in art studio and art history.

## Bachelor of Fine Arts Core Requirements

ART 150 - Drawing I . . . . . . . . . . . . . . . . . . . . 5
ART 170 - Basic Design I . . . . . . . . . . . . . . . . . 5
ART 171 - Basic Design II . . . . . . . . . . . . . . . . 5
ART 235 - Ancient and Medieval Art . ..... 4
ART 236 - Renaissance Through Mid-19th
Century Art
.4
ART 237 - Impressionism Through
Postmodernism4
ART 495 - Studio Project .....  1

Select one Course from the following . . . . . 4
ART 374 - History of Graphic Design (4)
ART 389 - Contemporary Concepts in
Art (4)
ART 414 - Recent Art (4)
ART 456 - History of Eastern Art (4)
Total Credits: 32

## Bachelor of Fine Arts Art Graphic Design <br> Specialization

A comprehensive studio art degree for students desiring careers in graphic design/ visual communications. Critical thinking through the exploration of digital and print media is emphasized. After completion of the art core and pre-graphic design prerequisites, students are required to complete the graphic design concentration requirements, including a contracted field experience. Transfer students are encouraged to complete as many of the transferable art requirements prior to enrolling at CWU.

An Apple laptop is required.

## Required Courses

Art Core Requirements. . . . . . . . . . . . . . . . 32
Pre-Graphic Design Requirements
ART 225 - Photography I . . . . . . . . . . . . . . . . . . . . . . 5
ART 274 - Typography .................... . . . . 5
ART 282 - Computer Art I . . . . . . . . . . . . . . . . . 5
ART 351 - Illustration I . . . . . . . . . . . . . . . . . . . 5
Select one course from . . . . . . . . . . . . . . . . . 5
ART 325A - Photography II-Color Photo Media (5)
ART 325B - Photography II-
Alternative Processes (5)
ART 325C - Photography II-Digital Imaging (5)
Graphic Design Requirements
ART 370 - Layout and Design I . . . . . . . . . . . 5
ART 371 - Layout and Design II . . . . . . . . . . . . 5
ART 372 - Design and Production I . . . . . . . . 5
ART 451 - Illustration II . . . . . . . . . . . . . . . . . . 5
ART 470 - Advertising Graphic Design. . . . . 5
ART 471 - Corporate Graphic Design . . . . . . 5
ART 472 - Design and Production II . . . . . . . 5
ART 474 - Typography II . . . . . . . . . . . . . . . . . 5
ART 490 - Cooperative Education
(Internship)
Total Credits: 107

## Studio Art Specialization

A comprehensive studio art degree for students desiring to pursue studio artrelated careers or seeking artistic enrichment. The degree can be directed toward either a discipline-specific studio art practice or a cross-disciplinary and / or cross-media studio art practice.

## Required Courses

Art Core Requirements
Select 69 credits from department-approved courses (at least 48 credits must be upperdivision. The maximum number of credits in a specific media area is 25 ). $\qquad$
Advisor-Approved Upper-division Electives 4

Total Credits: 105

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Bachelor of Arts Art Major

## Core requirements

ART 150 - Drawing I5
ART 170 - Basic Design I ..... 5
ART 171 - Basic Design II ..... 5
ART 235 - Ancient and Medieval Art. ..... 4
ART 236 - Renaissance Through Mid-19thCentury Art4
ART 237 - Impressionism Through Postmodernism ..... 4
ART 414 - Recent Art ..... 4
ART 495 - Studio Project ..... 1Studio Arts Required CoursesSelect 5 department-approved, lower-division studio courses fromthe following.25ART 225 - Photography I (5)ART 241 - Wood Design I (5)ART 246 - Jewelry / Metals I (5)ART 260 - Painting (5)
OR ART 262 - Watercolor I (5)
ART 265 - Ceramics I (5)
ART 280 - Sculpture I (5)
ART 282 - Computer Art I (5)
Select 18 credits from department-
approved, upper-division courses. . . . . . 18
Total Credits: 75

## Bachelor of Arts Visual Art Teaching Major

This major satisfies the endorsement for visual arts.

A comprehensive visual-art program that qualifies students to teach art at either the elementary or secondary levels in regular or
self-contained classrooms. Students taking this major are required to complete the professional education sequence requirements offered through the education department.

## Required Courses

ART 150 - Drawing I . . . . . . . . . . . . . . . . . . . . 5
ART 170 - Basic Design I . . . . . . . . . . . . . . . . . . 5
ART 171 - Basic Design II ................. . . . 5
ART 235 - Ancient and Medieval Art ...... 4
ART 236 - Renaissance Through Mid-19th
Century Art
.4
ART 237 - Impressionism Through
Postmodernism
. 4
ART 330 - Art in the Elementary School . . . . 4
ART 332 - Art Curriculum and Field
Experience . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ART 430 - Components of Art Education . . 4
ART 432 - Art in Secondary School . . . . . . . . 4
ART 495 - Studio Project . . . . . . . . . . . . . . . . . 1
Select four courses from the following . . . 20
ART 225 - Photography I (5)
ART 250 - Drawing II (5)
ART 241 - Wood Design (5)
ART 246 - Jewelry / Metals I (5)
ART 260 - Painting I (5)
ART 262 - Watercolor I (5)
ART 265 - Ceramics I (5)
ART 280 - Sculpture I (5)
ART 282 - Computer Art I (5)
ART 285 - Printmaking I (5)
Total Credits: 64:

## Art Studio Minor

Required Courses
Select one course . . . . . . . . . . . . . . . . . . . . . . 5
ART 150 - Drawing I (5)
ART 170 - Basic Design I (5)
Select one course . . 4
ART 235 - Ancient and Medieval Art (4)
ART 236 - Renaissance Through Mid19th Century Art (4)
ART 237 - Impressionism Through
Postmodernism (4)
ART 414 - Recent Art (4)
Select 15 credits from department-approved
studio courses
Total Credits: 24

## Art History Minor

Required Courses
Select 24 credits from the following. . . . . . 24
ART 235 - Ancient and Medieval Art (4)
ART 236 - Renaissance Through Mid19th Century Art (4)
ART 237 - Impressionism Through Postmodernism (4)
ART 410 - Art of the Italian Renaissance (4)

ART 414 - Recent Art (4)
ART 415 - Painters and Printmakers of Northern Europe (4)
ART 456 - History of Eastern Art (4)
Total Credits: 24

## Art Courses

ART 101. Introduction to Western Art (5). The visual arts as an expression of the human experience. This course does not apply to the art major.
ART 102. Introduction to Non-Western Art (5). A survey of non-western painting, sculpture, and architecture. This course does not apply to the art major.
ART 150. Drawing I (5). Studio experience emphasizing the understanding of form and composition through the use of various drawing materials and techniques. May include drawing from the nude figure. Six hours studio per week.
ART 170. Basic Design I (5). Exploration of the elements and principles of design in two-dimensional media. Emphasis on the development of design vocabulary, conceptual clarity, visual analysis, and technical proficiency. Six hours studio per week.
ART 171. Basic Design II (5). Exploration of the elements and principles of design in three-dimensional media. Emphasis on the development of design vocabulary, conceptual clarity, visual analysis, and technical proficiency. Prerequisite: ART 170. Six hours studio per week. Formerly ART 270. Student may not receive credit for both.

ART 225. Photography I (5). A basic course encompassing the conceptual concerns addressed within the technical framework of black-and-white photographic processes. Six hours studio per week.
ART 235. Ancient and Medieval Art (4). A historical survey of Western Art from ancient times through the Gothic period.
ART 236. Renaissance through Mid-19th-
century Art (4). A historical survey of Western Art from the Renaissance to Impressionism. Prerequisite: ART 235. Formerly ART 336. Student may not receive credit for both.
ART 237. Impressionism through
Postmodernism (4). Art in Europe and the United States from Impressionism through Postmodernism. Prerequisites: ART 235 and ART 236. Formerly ART 337. Student may not receive credit for both.
ART 241. Wood Design I (5). Introduction to wood as an artistic and design medium. Emphasis on visual communication utilizing basic shaping and finishing process. Six hours studio per week.
ART 246. Jewelry/Metals I (5). Design and construction of jewelry and small-scale metal objects. Emphasis on technical skill development, applied technique, conceptual problems, and introduction to contemporary work. Six hours studio per week. Formerly ART 347. Student may not receive credit for both.
ART 250. Drawing II (5). A continuation of ART 150 with an emphasis on technique, composition, and interpretation of ideas. Includes drawing from the figure. Prerequisite: ART 150. Six hours studio per week.

ART 260. Painting I (5). An introduction to the techniques of painting for expressive purposes. Prerequisites: ART 150, and ART 170, or permission of instructor. Six hours studio per week.
ART 262. Watercolor I (5). An introduction to the techniques of transparent watercolor and the visual problems of painting. Prerequisite: ART 150. Six hours studio per week.
ART 265. Ceramics I (5). Beginning instruction in ceramics hand-building and wheel-throwing techniques, including idea development and an exploration of techniques. Six hours studio per week.
ART 274. Typography (5). History and application of typography as a tool for visual communication. Applied basic knowledge of industry software. Prerequisite: ART 170.
ART 280. Sculpture I (5). Introduction to the studio experience in sculpture. Emphasis is on the fundamental materials and basic methods of sculpture, including references to the history of sculpture. Six hours studio per week.
ART 282. Computer Art I (5). Use of computer systems and Web software as tools for creative expression. Prerequisite:
ART 170 or permission of instructor.
ART 285. Printmaking I (5). Exploration of techniques and history of prints, with an emphasis on relief printmaking. Prerequisites: ART 150 and ART 170. Six hours of studio per week.
ART 296. Individual Study (1-6). May be repeated. Prerequisite: permission of instructor.
ART 298. Special Topics (1-6).
ART 299. Seminar (1-5). May be repeated.
ART 300. Papermaking (4). Hand papermaking techniques, exploring historical and contemporary works/ methods. Watermarking, pigmentation, moldmaking, with emphasis on sheetforming and fiber preparation. May be repeated for credit.
ART 324. History of Photography (4). A survey of contemporary photographers, their ideas, and the influences of their work upon culture. Covers mid-20th century to the present. Completion of ART 225 is strongly recommended but not required.
ART 325A. Photography II-Color
Photo Media (5). Introduction to color photography, encompassing visual culture dialogue as well as techniques for digital transparency and negative films, as well as the beginning use of artificial light. Prerequisite: ART 225.
ART 325B. Photography II-Alternative Processes (5). An introduction to 19thcentury photographic processes, review of the contemporary concepts, and its application immersed with digital and film based negative techniques. Prerequisite: ART 225.
ART 325C. Photography II-Digital Imaging
(5). An introduction to digital still photography and contemporary visual
concepts encompassing the televised to print image. Techniques reviewed include image capture, RAW process, composing, color management, and printing options. Prerequisite: ART 225.
ART 330. Art in the Elementary School (4). Content and methodology for teaching art in the elementary school. (Enrollment is subject to full admission to the Teacher Preparation Program.)
ART 332. Art Curriculum and Field Experience (4). Developing discipline-based art education curriculum for the elementary and middle school, as well as preparing curriculum to teach Friday Children's Art classes. Prerequisite: ART 330.
ART 341. Wood Design II (5). Design and fabrication of furniture forms. Emphasis on creative form development utilizing advanced fabrication and finishing processes. Prerequisite: ART 241.
ART 346A. Jewelry/Metals II (5). Technical and conceptual aspects of jewelry and metalwork through modelmaking, casting, moldmaking, and construction of linkages and chains. Emphasis on personal exploration. Prerequisite: ART 246. Course may not be repeated.
ART 346B. Jewelry/Metals II: Enameling (5). Technical and conceptual aspects of jewelry and metalwork with focus on enameling (glass on metal). Emphasis on personal exploration. Prerequisite: ART 246. Course may not be repeated.
ART 346C. Jewelry/Metals II: Form and Surface (5). Technical and conceptual aspects of jewelry and metalwork utilizing methods of form development and surface embellishment. Emphasis on personal exploration. Prerequisite: ART 246. Colisted with ART 446, meets simultaneously.
ART 350. Drawing III (5). A continuation of ART 250 with increased emphasis on drawing as a major means of visual expression. Includes drawing from the figure. Prerequisite: ART 250.
ART 351. Illustration I (5). Introduction to a variety of media and techniques associated with illustration. Prerequisite: ART 250, ART 260, or ART 262.
ART 360A. Painting II (5). Continued study of technical and formal approaches to painting, with an emphasis on representational and narrative strategies.
ART 360B. Painting III (5). Continued study of technical and formal approach to painting, with emphasis on color. Prerequisite: ART 360A or permission of instructor.
ART 362. Watercolor II (5). A continuation of ART 262 stressing a higher degree of individual expression and experimentation with various water-based media. Prerequisite: ART 262 or permission of instructor.
ART 365A. Ceramics II-Advanced Handbuilding (5). Advanced instruction in ceramic sculptural techniques, including historical and contemporary influences, investigation of clay, bodies, and idea
development. Prerequisite: ART 265 or permission of instructor.
ART 365B. Ceramics II-Advanced Wheel Throwing (5). Advanced instruction in ceramic pottery using the wheel, including vessel design and an investigation of clay bodies and high-fire glazes. Prerequisite: ART 265 or permission of instructor.
ART 370. Layout and Design I (5). Twodimensional design, introduction to type, design, and composition concepts. Prerequisite: permission of instructor. (See requirements for admission to graphic design specialization.) Two hours lecture and four hours studio per week.
ART 371. Layout and Design II (5). Advanced work in design composition with emphasis on applications of letter forms and color. Prerequisites: ART 370, permission of instructor. Two hours lecture and four hours studio per week.
ART 372. Design and Production I (5).
Emphasis on advertising art and production techniques. Prerequisites: ART 371, permission of instructor. Two hours lecture and four hours studio per week.
ART 374. History of Graphic Design (4). A historical survey of the graphic arts from their beginning to the present.
ART 380A. Sculpture II: Object and Form (5). A continuation of the studio experience of sculpture, emphasizing the development of a object and form, a higher level of technical competence, greater exploration of materials, and conceptual development. Prerequisite: ART 280.
ART 380B. Sculpture II: Installation Art (5). A continuation of the studio experience of sculpture, emphasizing the development of installation art within a spatial context, a higher level of technical competence, greater exploration of materials, and conceptual development. Prerequisite: ART 380A.
ART 381. Mixed-Media Art (5). A concentrated study of the integration of two- and three-dimensional media into mixed-media art forms. Prerequisites: ART 260, ART 280. May be repeated for credit to a maximum of 10 credits.
ART 382. Computer Art II (5). Exploration of several software programs and computer output devices for creation of electronic art. Prerequisite: ART 282 or permission of instructor.
ART 389. Contemporary Concepts in Art (4). Exploration of the contextual, formal, and philosophic meanings of current art movements and theories as regards to their relevance and place in contemporary art practice.
ART 398. Special Topics (1-6).
ART 410. Art of the Italian Renaissance (4).
The painting, sculpture, and architecture of the Italian Renaissance from the late Middle Ages through the 16th century. Prerequisite: ART 236.
ART 414. Recent Art (4). The visual arts of the last 25 years, including the traditional forms of painting, sculpture and architecture, and
newer forms including video, computer, and performance art. Prerequisite: ART 237. Formerly ART 314. Students may not receive credit for both.
ART 415. Painters and Printmakers of Northern Europe (4). Art of Germany, Flanders, and Holland, 15th through 18th century.
ART 425. Photography III: Advanced (5). This is a portfolio-building and professional development course. Designed for the advanced student to independently pursue creative research appropriate to conceptual concerns and technical application related to photo-media. Prerequisites: ART 325 A, B, and C, or permission of instructor. May be repeated for up to a 20 -credit maximum.
ART 430. Components of Art Education (4). Content and strategies for teaching aesthetics, art criticism, art history, and art production in art education; writing, implementing, and assessing quality art lessons. Prerequisite: ART 330.
ART 432. Art in Secondary School (4). Current philosophies and curriculum in the secondary school; objectives, planning, methods of teaching, and evaluation. Prerequisite: ART 430.
ART 441. Wood Design III (5). Advanced design and fabrication of furniture forms. Emphasis on research and development of furniture forms utilizing advanced and/ or innovative fabrication and finishing processes. Prerequisite: ART 341. May be repeated for a 20 -credit maximum.
ART 446. Jewelry/Metals III (5). Advanced exploration of personal expression in metals, with emphasis on self-direction and conceptual and technical mastery and professionalization of practice. ART 346A, ART 346B, and ART 346C, or permission of instructor. May be repeated for a 20 -credit maximum.
ART 450. Drawing IV (5). Advanced study and experimentation with technical, formal, and conceptual problems in drawing. Includes drawing from the figure. Prerequisite: ART 350 or permission of instructor. May be repeated for credit by undergraduates only.
ART 451. Illustration II (5). A continuation of ART 351 stressing development of personal expression in illustration. Prerequisite: ART 351. May be repeated for credit by undergraduates only.
ART 456. History of Eastern Art (4). A survey of the architecture, sculpture, painting, and the crafts of India, Indonesia, China, and Japan. Prerequisite: permission of the instructor. ART 456 and ART 556 are equivalent courses. Students may not receive credit for both.
ART 460. Painting IV (5). Advanced study and experimentation in technical, formal, and conceptual approaches to painting, with an emphasis on developing individual expression. Prerequisites: ART 360B, ART 450, permission of instructor. May be repeated for up to 20 credits.
ART 465. Ceramics III (5). A continued exploration of ceramic materials and
processes. Emphasis on developing professional practices and personal vocabulary through the ceramic medium. Prerequisites: permission of instructor and ART 365A or B. May be repeated for up to 20 credits.
ART 470. Advertising Graphic Design
(5). Concept and design of advertising problems. Presentation and communication skills; introduction to analysis and implementation of marketing strategies. Prerequisite: permission of instructor. May be repeated for credit.
ART 471. Corporate Graphic Design (5). Principles of corporate concept and design: advanced presentation and communication skills; analysis and implementation of marketing strategies in the corporate setting. Prerequisites: ART 470, permission of instructor. May be repeated for credit.
ART 472. Design and Production II (5). Continues the development of professional attitudes; promotes creative problem solving techniques; defines the role of designer or art director and relationships to typographer and printer. Prerequisite: ART 471. May be repeated for credit.

ART 474. Typography II (5). Explore traditional and conceptual typographic applications, structural and visual elements of typography, with an emphasis on history, anatomy, terminology, letter, word, line, paragraph, and type-image relationships. Prerequisite: ART 274.
ART 480. Sculpture III (5). Advanced studies in sculpture. Emphasis is on creative selfexpression and the development of a selfdirected body of work. Prerequisites: ART 380A and ART 380B. May be repeated for up to 20 credits.
ART 482. Travel Study (2-8). Conducted tours in this country and abroad as a means of studying art. Students registering for credit will be required to do reading on the area to be visited before making the tour, and to submit a report for evaluation at the end of the trip. The amount of credit to be granted will be determined by the college at the time the tour is approved, but it must not exceed $11 / 2$ credits per week of planned travel study.
ART 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
ART 491. Workshop (1-6). Individual and group study of specific or general problems in art education, including laboratory experience, lectures, and demonstrations. The credit to be earned determined upon scheduling.
ART 495. Studio Project (1). Preparation of a professional portfolio and presentation of a body of work suitable for exhibition. Satisfies end of major assessment requirement. Must be taken during one of
the last two quarters prior to graduation. Grade will be $S$ or $U$.
ART 496A. Individual Study: Computer Art (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496C. Individual Study: Ceramics (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496D. Individual Study: Drawing (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496E. Individual Study: Art Education
(1-6). Prerequisite: permission of instructor. May be repeated.
ART 496G. Individual Study: Graphic Design (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496H. Individual Study: Art History
(1-6). Prerequisite: permission of instructor. May be repeated.
ART 496J. Individual Study: Jewelry/Metals (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496P. Individual Study: Painting (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496S. Individual Study: Sculpture (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496T. Individual Study: Photography (1-6). Prerequisite: permission of instructor. May be repeated.
ART 496W. Individual Study: Wood Design
(1-6). Prerequisite: permission of instructor. May be repeated.
ART 498. Special Topics (1-6).
ART 499. Seminar (1-5). May be repeated.

# ASIA/PACIFIC STUDIES PROGRAM 

Ellensburg
Language and Literature Bldg., room 337C

## 509-963-1190

Fax 509-963-1822
www.cwu.edu/~aps
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Program Director
Jeffrey W. Dippmann, PhD

## Program Faculty

John Alwin, PhD, geography
James Cook, PhD, history
Toni Culjak, PhD, English
Jeffrey W. Dippmann, PhD, philosophy and religious studies
William Folkestad, PhD, art
Michael Launius, PhD , political science
Chenyang Li, PhD, philosophy and religious studies
Joshua Nelson, PhD, Japanese language
Penglin Wang, PhD, anthropology
Hong Xiao, PhD, sociology
Bang-Soon Yoon, PhD , political science and women's studies

## Program Information

The Asia / Pacific Studies program is an interdisciplinary program focusing on a region currently undergoing a dramatic economic, political, and social transformation. The program provides students with a grasp of the region's diversity while emphasizing the interactive nature of an overarching community of nations. Careers in international business, government service, and education can be augmented by preparation in Asia/Pacific studies. The program also serves as an excellent preparation for graduate study in various academic and professional fields.

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college / university study or two years high school study of a single foreign language.)

## Bachelor of Arts Asia/Pacific Studies Major

Asia/Pacific Studies Core Requirements
AST 102 - Introduction to Asian Studies . . . . 3
GEOG 475 - Geography of Asia . . . . . . . . . . . 5
HIST 380 - Modern East Asia . . . . . . . . . . . . . . 5
OR
HIST 383 - East Asian Civilization (5)
POSC 366 - Government and Politics of East Asia
First- and Second-year Chinese . . . . . . . . . 30
CHIN 151 - First-year Chinese (5)
CHIN 152 - First-year Chinese (5)
CHIN 153 - First-year Chinese (5)
CHIN 251 - Second-year Chinese (5)
CHIN 252 - Second-year Chinese (5)
CHIN 253 - Second-year Chinese (5) OR
First and Second-year Japanese (30)
JAPN 151 - First-year Japanese (5)
JAPN 152 - First-year Japanese (5)
JAPN 153 - First-year Japanese (5)
JAPN 251 - Second-year Japanese (5)
JAPN 252 - Second-year Japanese (5)
JAPN 253 - Second-year Japanese (5)
Asia/Pacific Core Total Credits: 48


Electives
15
Elective credits may be selected
from the following:
ANTH 344 - Cultures of Asia (4)
AST 301 - Chinese Literature in Translation (4)
AST 347 - Japanese Literature in Translation (4)
AST 396 - Individual Study (1-6)
AST 465 - Indian Cinema (4)
AST 466 - Asian Cinema (4)
CHIN 461 - Chinese Cinema (4)
GEOG 474 - Geography of China (4)
HIST 483 - Modern China (5)
HIST 484 - Modern Japan (3-5)
JAPN 462 - Japanese Cinema (4)
PHIL 445 - Chinese Philosophy (5)
POSC 367 - Politics of Japan (5)
POSC 368 - Chinese Politics (5)
POSC 369 - Korean Politics (5)
POSC 373 - International Politics of the Pacific Rim (5)
RELS 351 - Religions of China and Japan (5)
RELS 401 - The Daoist Tradition (5)
TH 375 - Asian Drama (4)
Total Credits: 63

## Asia/Pacific Studies Minor

Required Courses
AST 102 - Introduction to Asian Studies . . . . 3
GEOG 475 - Geography of Asia . . . . . . . . . . . 5 OR
HIST 383 - East Asian Civilization (5)
Select one of the following emphases:

## Japanese Studies

JAPN 151 - First-year Japanese ............. . 5
JAPN 152 - First-year Japanese . . . . . . . . . . . . 5
JAPN 153 - First-year Japanese . . . . . . . . . . . 5
Select from the following. . . . . . . . . . . . . . . . 10
AST 310 - Japan Today (3)
AST 347 - Japanese Literature in Translation (4)
AST 396 - Individual Study (1-6)
HIST 484 - Modern Japan (3-5)
JAPN 462 - Japanese Cinema (4)
POSC $367^{*}$ - Politics of Japan (5)
Japanese Studies Total Credits: 33
Chinese Studies
CHIN 151 - First-year Chinese . . . . . . . . . . . . 5
CHIN 152 - First-year Chinese . . . . . . . . . . . . . 5
CHIN 153 - First-year Chinese . . . . . . . . . . . . 5 (or higher)
Select from the following. . . . . . . . . . . . . . . 10
AST 301 - Chinese Literature in Translation (4)
AST 396 - Individual Study (1-6)
CHIN 461 - Chinese Cinema (4)
GEOG 474 - Geography of China (4)
HIST 483 - Modern China (5)
PHIL 445 - Chinese Philosophy (5)
POSC 368* - Chinese Politics (5)
RELS 401 - The Daoist Tradition (5)
Chinese Studies Total Credits: 33

## Asian Studies

Chinese, Japanese, or another language with director's approval
(e.g. Korean, Russian)

Select from the following. . . . . . . . . . . . . 10-14
ANTH 344 - Cultures of Asia (4)
AST 396 - Individual Study (1-6)
AST 465 - Indian Cinema (4)
AST 466 - Asian Cinema (4)
GEOG 475 - Geography of Asia (5) OR
HIST 380 - Modern East Asia (5)
POSC 366* - Government and Politics of East Asia (5)
POSC 369* - Korean Politics (5)
POSC 373* - International Politics of the Pacific Rim (5)
RELS 351 - Religions of China and Japan (5)
RELS 401 - The Daoist Tradition (5)
TH 375 - Asian Drama (4)
Asian Studies Total Credits: 33
*Elective courses may not be chosen from the student's major area.
(Note: Other courses may be included with advisor's approval. At least two departments must be represented among selected courses.)

## Asia/Pacific Studies Courses

AST 102. Introduction to Asian Studies (3). An interdisciplinary introduction to the study of Asia, emphasizing geography, history, culture, and economics.
AST 301. Chinese Literature in Translation
(4). A survey of Chinese literature in translation. Prerequisite: grade of C- or better in English 101. AST 301 and CHIN 301 are equivalent courses. Students may not receive credit for both.
AST 310. Japan Today (3). Study of culture, social structure, human relations, and issues and problems in contemporary Japan.
AST 347. Japanese Literature in Translation
(4). A survey of Japanese literature in translation. AST 347 and JAPN 301 are equivalent courses. Prerequisite: C - or higher in English 101 or its equivalent. Students may not receive credit for both.
AST 396. Individual Study (1-6).
AST 398. Special Topics (1-6).
AST 465. Indian Cinema (4). An examination of the history, aesthetic achievements, major directors, and themes and cultural explorations of Indian cinema. The course explores films from a variety of Indian cinematic traditions including the Bengali, Hindi, Bangladeshi, Telugu, Tamil, Marathi, Malavalam, Kashmir, and Kannada film industries.
AST 466. Asian Cinema (4). A survey of the history, aesthetic achievements, major directors, and themes and cultural explorations of Asian cinema (exclusive of India, China, and Japan). The course will include films from Korea, Cambodia, Vietnam, Laos, Nepal, Thailand, etc.

# COMMUNICATION DEPARTMENT 

Ellensburg
Bouillon Hall, room 232A

## 509-963-1066

Fax: 509-963-1060
www.cwu.edu / ~comm
See Web site for how the communication programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Lois Breedlove, MA

## Professors

Philip Backlund, PhD, communication studies James L. Gaudino, PhD, public relations Michael R. Ogden, PhD, journalism, film and video studies

## Associate Professors

Lois J. Breedlove, MA, journalism Robert C. Fordan, MA, journalism

## Assistant Professor

Xiaodong Kuang, PhD, public relations, advertising
Cesar Garcia, PhD, public relations
Steve Jackson, MA, journalism, convergent media
Cynthia Mitchell, MBA, journalism
Maria Sanders, MA, film and video studies

## Lecturers

Patrick Deffenbaugh, BA, advertising
Katherine Horowitz, MA, communication studies
Toby Staab, MA, journalism

## Staff

Kristina Owens, secretary senior
Michele Graaff, Bridges administrative assistant
Veronica Gomez-Vilchis, Bridges project coordinator
Michael Richard, Observer business manager

## Department Information

The Department of Communication prepares students to become active participants in communicating with - and the shaping of - modern culture in a global society. The department emphasizes studentcentered instruction in gathering and disseminating written, spoken, and visual information, as well as course-work in the processes, effects, and theories of human communication. The department is committed to a liberal education in written, oral, visual, and convergent media communication, as well as to training in diverse professional fields.

## Department Standards

Admission Requirements

1. Students accepted into a major must meet with their assigned departmental faculty advisor at least quarterly.
2. At the time of application, students must have completed COM 189, COM 201, and COM 202 with a combined 3.0 average or better. All potential majors must have a grade point average of at least 2.4 overall from CWU and have a passing score on the required grammar, spelling, and punctuation test.
3. Students must submit a major application form, a current CAPS report, a letter of application, outside cognate or minor plan, and test scores from the departmental admissions test in accordance with department policies.
4. The communication department reserves the right to modify these requirements as the needs of the department change. Such modifications would supersede policies previously published in this catalog.

## Exit Requirements

1. Students must maintain a 2.4 GPA with a minimum grade of $C$ - in all courses counted toward fulfilling any major and/ or required outside cognate or minor requirements.
2. All communication department majors must complete at least 20 credits in an outside cognate or a recognized external minor. To qualify as an outside cognate, courses must be 300 level or above. The student's major advisor MUST approve the outside cognate or external minor at the time of admission to the department.
3. No course may be counted twice in fulfilling an internal or external minor or outside cognate. However, students may propose, with advisor approval, an additional course as a substitution to fulfill minor or cognate requirements (see department handbook).

## Financial Obligations

Production courses required for broadcast journalism and / or film and video studies have associated lab fees.

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Communication Foundation

## Required Courses

COM 189 - Communication Orientation . . . . 1
COM 201 - Media and Culture . . . . . . . . . . . . 4
COM 202 - Communication Ethics and the First Amendment
. 4

## Bachelor of Arts <br> Communication Studies Major

The communication studies major begins with a traditional liberal arts perspective, infuses an international/intercultural perspective, and then focuses on practical application of communication knowledge and skill. The major is intended for students who wish to be at home in a wide range of situations and cultures and who value the role of communication in creating effective relationships locally and globally. The major is also an effective foundation for advanced study (academic or professional). Students must complete the communication foundation courses prior to acceptance into the communication studies major.

## Required Courses

Communication Foundation Courses . . . . . . 9
COM 207 - Introduction to Communication Studies.
COM 251 - Small Group Dynamics . . . . . . . . 4
COM 253 - Interpersonal Communication . . 4
COM 302 - Intercultural Communication . . . 4
COM 340 - Public Communication: Theory
and Practice
.4
COM 350 - Persuasion and Culture . . . . . . . . . 4
COM 365 - Organizational Communication. 4
COM 401 - Language, Thought, and
Communication. . . . . . . . . . . . . . . . . . . . . . 4
COM 450 - Advanced Public Speaking . . . . . 4
COM 451 - Communication Analysis and Research
COM 485 - Senio
COM 489 - Portfolio Assessment . . . . . . . . . . 1
Media Requirement: Select one class
from the following: . . . . . . . . . . . . . . . . . . . . 4
COM 321 - Visual Communication (4)
COM 354 - History of Television (4)
COM 369 - Mass Media and Society (4)
COM 460 - Communication Law (4)
Study-abroad Option. Twelve pre-approved credits from participating international institution.
OR
Non Study-abroad Option. Twelve preapproved credits of which eight credits must come from one of the following cognates: .
Relational Communication
COM 362 - Mediation and Conflict Resolution (4)
COM 380 - Nonverbal Communication (4)
COM 402 - Gender Communication (4)
COM 403 - Family Communication (4)
Organizational Communication
COM 345 - Business and Professional Speaking (4)
COM 362 - Mediation and Conflict Resolution (4)
COM 375 - Interviewing Principles and Techniques (4)
COM 465 - Communication and Organizational Leadership (4)
Pre-approved upper-division elective credits in COM. .
Students may choose any COM courses with advisor approval.

## Bachelor of Arts Public Relations Major

Public relations has become an indispensable part of any organization, company, institution, or government trying to create a body of public opinion to support its mission, vision, or values. Understood as a management function in modern organizations in the corporate world, this same professional level has been adopted by NGOs, non-profit organizations, and even governments and countries as a whole. This new scenario offers plenty of opportunities for multifaceted public relations practitioners with skills in written and interpersonal communication, research, negotiation, leadership, creativity, logistics, and problem solving. Students must complete the communication foundation courses prior to acceptance into the public relations major.

## Required Courses

Communication Foundation Courses ...... . 9
COM 208 - Introduction to Public Relations
Writing . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
COM 270 - Introduction to Public Relations 4
COM 345 - Business and Professional Speaking4
COM 350 - Persuasion and Culture . ..... 4
COM 370 - Writing for Public Relations ..... 4
COM 470 - Public Relations Strategies. .....  5
Management ..... 4
COM 489 - Portfolio Assessment .....  1
COM 490 - Cooperative Education ..... 5
MKT 360 - Principles of Marketing .....  5
Select eight credits in media from thefollowing.COM 306 - Introduction to ConvergentMedia (4)

COM 442 - NewsWatch Reporting (2)
COM 446 - Convergence Publishing (2)
COM 460 - Communication Law (4)
COM 468 - Observer (2)
Select eight credits in public relations specializations from the following. . . . . 8
COM 487 - Public Relations Professional Seminar (3)
COM 472 - Global Public Relations (4)
COM 473 - Corporate Reputation Management (4)
COM 474 - Public Opinion (4)
Pre-approved upper-division elective credits . . 10
Student may choose any COM course with advisor approval.

Total Credits: 75

## Bachelor of Arts <br> Journalism Major

In today's environment of converging media, successful journalists need the necessary skills and concepts to tell meaningful stories for a variety of outlets. In this major, students learn how to conceive
ideas and collect and present information using words, pictures, and sounds to craft news stories that are accurate, fair, clear, and compelling. Students will also understand the ethical, legal, and management environment of journalism and the fundamental role media plays in our social, political, and economic system. A specialization in print, broadcast, or convergent media is required. Students must complete the communication foundation courses prior to acceptance into the journalism major.

## Journalism Core Courses

Communication Foundation Courses ..... 9
COM 308 - Writing and Reporting for Print
Journalism
.5
COM 310 - Writing and Reporting for
Broadcast Journalism
COM 321 - Visual Communication. . . . . . . . . 4
COM 226 - Writing and Reporting for
Convergence Media .
.4
COM 489 - Portfolio Assessment . . . . . . . . . . 1
COM 490 - Cooperative Education. . . . . . .1-12
Select two of the following . . . . . . . . . . . .7-8
COM 333 - Communication Ethics (3)
COM 369 - Mass Media and Society (4)
COM 382 - History of American
Journalism (4)
COM 460 - Communication Law (4)
Total Journalism Core: 41

Select one of the following specializations:

## Print Specialization

Required Courses
COM 347 - Copy Editing . . . . . . . . . . . . . . . . . 4
COM 408 - Feature Writing . . . . . . . . . . . . . . . 4
COM 466 - Investigative Reporting . . . . . . . . 4
Select ten credits from the following. . . . . 10
Must take at least 4 credits of Observer
COM 442 - NewsWatch Reporting (2)
COM 446 - Convergence Publishing (2)
COM 468 - Observer (2)
COM 478 - Advanced Newspaper Editing (3)
Pre-approved upper-division elective
credits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
Student may choose any COM course with advisor approval.

Print Specialization Credits: 34

## Broadcast Specialization

Required Courses
COM 322 - Introduction to Studio
Production
COM 341 - Introduction to Field Production 4
COM 342 - Broadcast News Producing and Reporting . . 4

Select ten credits from the following. . . . . 10
Must take at least 4 credits of NewsWatch Management
COM 442 - NewsWatch Reporting (2)
COM 446 - Convergence Publishing (2)
COM 452 - Applied Video Production (2)
COM 462 - NewsWatch Management (2)

Pre-approved upper-division elective
credits . . . . . . . . . . . . . . . . . . . . . . . . .
Student may choose any COM course with advisor approval.

## Broadcast Specialization Credits: 34

## Convergent Media Specialization

## Required Courses

COM 306 - Introduction to Convergence
Media . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
COM 336 - Convergent Media Design . . . . . 4
COM 406 - Topics in Convergent Media . . . . 4
Select ten credits from the following. . . . . 10
Must take at least 4 credits of Observer
COM 442 - NewsWatch Reporting (2)
COM 446 - Convergence Publishing (2)
COM 452 - Applied Video Production (2)
COM 468 - Observer (2)
Pre-approved upper-division elective credits.
Student may choose any COM course with advisor approval.
Convergent Media Specialization Credits: 34
Major Total Credits: 75

## Communication Minor

The communication minor introduces students to the study of communication within a modern social and cultural context. Students in teacher education must meet with the department chair and the certification director to determine the course of study necessary for endorsement.

## Required Courses

COM 201 - Media and Culture . . . . . . . . . . . .
COM 202 - Communication Ethics and the First Amendment
. .4
Approved Communication Electives . . . . . 20
Total Credits: 28

## Organizational Communication Minor

The minor in organizational communication is designed to complement a broad spectrum of majors leading to careers in government, education, social, and community services. Emphasis is placed on an understanding of the basic nature of communication in organizations, and on the fundamental knowledge and skills necessary for effective communication in organizations at the interpersonal, small group, and public (large group) levels.

## Required Courses

COM 251 - Small Group Dynamics 4
OR
COM 302 - Intercultural Communication (4)
COM 345 - Business and Professional
Speaking . . . . . . . . . . . . . . . . . . . . . . . . . . 4
COM 365- Organizational Communication 4
COM 375 - Interviewing Principles and
Techniques
COM 490 - Cooperative Education . . . . . . . . 5
Department-approved electives . . . . . . . . . . . 4
Total Credits: $\mathbf{2 5}$

## Advertising Minor

The advertising minor develops competence in advertising planning, production, and distribution. Students with Communication majors are encouraged to take the advertising minor. However, it must be done in addition to the requirements of the majors and does not qualify as an outside minor.


Total Credits: 32

## Non-profit Organization Administration Minor

The minor in non-profit organization administration is an interdisciplinary minor designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing nonprofit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5 COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/Fund Raising. . . . 3
COM 470 - Applied Public Relations (5)
OR
COM 475 - Public Relations and
Advertising Management (4). . . . . . . . . . .4-5
Choose one of the following: . . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

Areas of Interest
Choose any of the following for a total of at least 9 credits. . . . . . . . . . . . . . . . . . . . .
ANTH 360 - Introduction to Museum Studies (4)
ANTH 361 - Museum Exhibit Design (4)
COM 370 - Writing for Public Relations (4)
COM 487 - Public Relations Professional Seminar (3)
MUS 482 - Music Business (3)
TH 350 - Theatre Management (3)
TH 351 - Theatre Management (3)
TH 360 - Stage Management (3)
Total Credits: 29-30

## Non-profit Organization Administration Certificate

The certificate in non-profit organization administration is an interdisciplinary approach designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The courses provide practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/Fund-raising . . . . 3
COM 470 - Public Relations Strategies (5)
OR
COM 475 - Public Relations and
Advertising Management (4).
Choose one of the following:. . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

Total Credits: 20-21

## Professional Writing Certificate

The Professional Writing Certificate allows students to develop their writing skills for professional and business environments. It is delivered entirely online to serve professionals already working in careers as well as students planning to begin professional or business careers. Students will learn the rhetorical requirements for specific forms of written communication, including letters, memos, reports, proposals, promotional materials, and press releases. They will also learn to edit their own writing for clarity, correctness, and style.

## Required Courses

ENG 301 - Introduction to Professional Writing
ENG 310-Technical Writing . . . . . . . . . . . . . . . 4
COM 347 - Copy Editing . . . . . . . . . . . . . . . . . . 4
COM 370 - Writing for Public Relations . . . . 4
Total Credits: 16

## Communication Courses

COM 189. Communication Orientation (1).
Survey of departmental requirements and fields of study. Prerequisite or co-requisite,
COM 201. Required for admission to major.
COM 201. Media and Culture (4). An examination of mass media in its historical, societal, and political environments. Develop an understanding of the impact media has in a diverse world.
COM 202. Communication Ethics and the First Amendment (4). Importance of First Amendment to democratic society. Ethics of communication in the public sphere and the rights and responsibilities of communication professionals. Required for admission to communication majors.
COM 207. Introduction to Communication Studies (4). Introductory course designed to develop oral communication abilities for effective communication across a variety of contexts. Prerequisite: major status, or permission of instructor.
COM 208. Introduction to Public Relations Writing (4). Integrated approach to media writing emphasizing public relations writing styles.
COM 226. Writing and Reporting for Convergence Media (4). Writing and research of journalistic stories for online media. Prerequisite: major status, or permission of instructor.
COM 251. Small Group Dynamics (4). Analysis and practice of communication principles affecting effectiveness of small group discussion. Includes theory and practice of leadership and problem solving in small groups. Prerequisites: COM 207 or permission of the instructor.
COM 253. Interpersonal Communication (4). Investigation of theory, research, and practice of the role of communication in effective interpersonal relationships. Prerequisite: COM 207 or permission of the instructor.
COM 255. Emerging Leaders (2). Course is designed to develop student leaders on campus through leadership training, leadership experiences, self analysis, and familiarization with leadership opportunities at CWU.
COM 270. Introduction to Public Relations (4). The basic concepts of public relations; the tools and media used in communicating with the variety of publics. Prerequisites: COM 208 or permission of the instructor.
COM 280. Advertising Fundamentals (4). It covers the basic elements, principles, theories, and practices of advertising. Students will learn advertising strategies,
techniques, and integration of advertising with other communication mix elements.
COM 290. Cooperative Field Experience (1-6). Internship designed to explore career opportunities in the major. Open to all students. Grade will be S/U.
COM 296. Individual Study (1-6).
Prerequisite: permission of instructor.
COM 298. Special Topics (1-6).
COM 302. Intercultural Communication (4). The objective of this course is to give the participants the skills and understanding necessary to improve communication with peoples of other nations and cultures.
COM 305. Advertising Copywriting and Placement (4). Preparation and placement of advertising in mass and selective media. Theory and techniques of advertising writing and media buying. Prerequisite: major status, or by permission of the instructor.
COM 306. Introduction to Convergent Media
(4). An introductory course in the design of convergent media tools. Students will learn interactive client- and server-based media, including coding, design, and interactive elements. Prerequisite: major status, or permission of the instructor.
COM 308. Writing and Reporting for Print Journalism (5). Students will learn how to conceive, report, pitch, and write news stories for print media and will learn how to cover a specialized news beat. Prerequisite: major status or by permission of the instructor.
COM 309. Writing Broadcast Advertising (4). Principles and techniques used in writing effective radio and television commercials, public service announcements, and promotional copy. A writing-intensive course. Prerequisite: major status, or permission of the instructor.
COM 310. Writing and Reporting for Broadcast Journalism (5). Writing, newsgathering, and reporting for the electronic media. Includes on-the-scene coverage and interviewing. Prerequisites: major status, or permission of the instructor.
COM 312. Introduction to Non-profit Leadership (3). This course introduces key elements in non-profit organization leadership and makes brief reviews of various non-profit management topics, such as strategic missions, board development, leadership roles, fundraising, staffing, performance evaluation and accountability, non-profit marketing, and legal issues.
COM 315. Studies in Communication (1). Specialized topics in communication to increase practical communication skills. Prerequisite: permission of the instructor. May be repeated for credit under different titles. Grade will be $S$ or U.
COM 321. Visual Communication (4). Understanding the communication of visual messages for an audience, production of visual images in print, video, and digital forms. Prerequisites: major status, or permission of instructor.

COM 322. Introduction to Studio Production
(4). An introduction to the production elements of a television show, with an emphasis on the function and operation of studio lighting, audio, and cameras. Prerequisite: COM 321 and major status, or permission of the instructor.
COM 330. Media Aesthetics (5). An examination of the major aesthetic elements involved in visual storytelling for film and television, including light, color, 2D and 3D space, time/motion, and sound. Prerequisite: COM 321 and major status.
COM 333. Communication Ethics (3). The study of ethical issues in communication. Prerequisite: COM 201.
COM 336. Convergent Media Design (4). Practical approaches in information design for convergent media. Focus on industry standard applications and techniques. Prerequisites: COM 306, COM 321, and major status, or permission of instructor.
COM 340. Public Communication: Theory and Practice (4). Survey of rhetorical theory and practice from ancient to modern times. Examination of classical, Renaissance, and modern historical periods and transitions to current theories of communication. Prerequisite: major status or permission of instructor.
COM 341. Introduction to Field Production
(4). Principles and techniques of location production and visual storytelling for journalism and film. Prerequisites: COM 321 and major status, or permission of the instructor.
COM 342. Broadcast News Producing and Reporting (4). Principles and techniques used in producing newscasts and field reports for broadcast news with emphasis on television medium. Prerequisite: COM 310. Co-requisite, COM 321, or COM 336, and major status or permission of instructor. May be repeated to a limit of 6 credits.
COM 345. Business and Professional Speaking (4). Oral communication in career and professional settings with focus on public presentations, briefings, and persuasion. Prerequisite: permission.
COM 346. Production Management for Film and Video (4). Theory, discussion, and practical application of planning and management fundamentals during preproduction, production, and postproduction of narrative and / or documentary programs. Prerequisites COM 201 or FVS 250.
COM 347. Copy Editing (4). The editing process; edit copy for content and mechanics; write headlines and cutlines. Prerequisite: COM 208, major status, or by permission of instructor.
COM 348. Publication Design (3). Publication design, the theories of graphics, headlines, and text. Management of the design process. Prerequisites: by permission of instructor or major status.
COM 350. Persuasion and Culture (4). Role of persuasion in society, elements of human motivation, techniques and appeals of the persuader. Prerequisite: major status or permission of the instructor.

COM 351. Visual Anthropology (4). Provides methodological, theoretical, and practical background to produce and evaluate imagery in films and video; guidelines and practice of image presentation/ manipulation in anthropological and social contexts. Prerequisites: ANTH 130 or ART 225 or COM 321 or 330 , or by permission of the instructor. COM 351 and ANTH 351 are equivalent courses. Students may not receive credit for both.
COM 353. History of Narrative Film (4). A history of the development of narrative film as an art form and cultural medium, with primary focus on Hollywood cinema. Prerequisite: FVS 250. COM 353 and ENG 353 are equivalent courses. Student may not receive credit for both.
COM 354. History of Television (4).
Historical survey of television as an entertainment, information, and art medium. Emphasis on understanding the cultural, social, political, technological, and economic conditions of production; the examination of television as text itself; and TV's impact on audiences. Prerequisites: COM 201 or FVS 250, or permission of the instructor. COM 354 and ENG 354 are equivalent courses. Students may not receive credit for both.
COM 355. History of Documentary (4). Survey of documentary history from 1895 to present. Focus on philosophy of documentary approach, overview of the most important topics and issues, and development of critical standards in the genre. Prerequisites: COM 201 or FVS 250 and permission of instructor. COM 355 and ENG 355 are equivalent courses. Students may not receive credit for both.
COM 357. Scriptwriting for Serial Television (4). Writing scripts for the basic genres of serial television including drama, comedy, action/adventure, science-fiction, mystery, fantasy, and cross-over. Includes study of TV script structure, story, character development, and dialog. Prerequisite: COM 201, or FVS 250, and major status, or permission of the instructor. A writingintensive course.
COM 362. Mediation and Conflict Resolution (4). Communication and decision-making strategies for conflict resolution. Negotiating agreement and mediating differences in interpersonal and organizational settings. Prerequisite: major status or permission of instructor.
COM 365. Organizational Communication (4). Function, forms, and patterns of communication in organizations. Effects of organizational structures and dynamics on communication. Methods of evaluating communication policies and practices as an aid to organizational management. Prerequisites: major status, and permission of the instructor.
COM 367. Narrative Screenwriting (4).
Writing screenplays in combination with the study of models and techniques.
Prerequisite: COM 201 or FVS 250 or
permission of instructor. COM 367 and ENG 367 are cross-listed courses. Students may not receive credit for both.
COM 369. Mass Media and Society
(4). Relationship of the mass media to social institutions including philosophy, responsibilities, regulations, and criticism. Variable topic, may be repeated for up to 8 credits. COM 369 and SOC 369 are equivalent courses.
COM 370. Writing for Public Relations (4). Practical instruction in persuasive writing, news releases, broadcast material, speeches, institutional messages, newsletter articles, employer publications, backgrounders, features, and corporate profiles. Prerequisites: COM 208, COM 270, major status or by permission of the instructor.
COM 375. Interviewing Principles and Techniques (4). Examination of the basic principles and techniques of interviewing and their application in informational, employment, and persuasive / counseling contexts. Extensive in-class and community experience in interviewing provided. Prerequisites: COM 207, major status or permission of the instructor.
COM 382. History of American Journalism (4). Survey of American journalism since colonial times; emphasis on understanding the evolution of journalism in the United States and the changing technological, social, and cultural trends affecting print and broadcast journalism. Prerequisite: COM 201 and major status, or by
permission of instructor.
COM 388. Advertising Sales (4). Examines the process of selling advertising, including product research, client relationship, managing accounts, making the pitch, and following through. Prerequisite: COM 380.
COM 401. Language, Thought, and Communication (4). Examination of human communication on an individual, interpersonal, and public level. Exploration of the relationship between communication theory and the practice of communication in various professional settings. Prerequisite: major status or by permission of instructor.
COM 402. Gender Communication (4). Analysis of gender role development in females and males with focus on effective relationship development between sexes. Analysis and development of communication skills useful in cross-sex friendships, working relationships, and romantic/family relationships. Prerequisite: major status or permission of the instructor.
COM 403. Family Communication (4). This
course is designed to provide an overview of family dynamics and the processes that influence family communication and family functioning. COM 403 and FS 403 are equivalent courses. Students may not receive credit for both.
COM 405. Advanced Advertising Copywriting (4). Students develop advanced skills in writing copy, developing visual elements, and constructing advertisements and advertising campaigns. Prerequisite: COM 305.

COM 406. Topics in Convergence Media
(4). Issues and skills in convergence media. Provides skills in advanced techniques and approaches to information distribution in convergence media. Topics will change from quarter to quarter. Course may be repeated for up to 8 credits.
Prerequisites: COM 306 and major status or permission of the instructor.
COM 408. Feature Writing (4). Skills needed to conceive, report, and write a wide range of feature stories for newspapers, magazines, and online publications. Prerequisites: COM 308 and major status or permission of the instructor.
COM 420. Media Buying and Placement (4). Students learn the process by which companies purchase advertising, and how advertising buys are sold at the agency/ corporate level. Students develop skills to calculate appropriate media buys. Prerequisite: COM 380.
COM 422. Advanced Multi-camera Production (4). The creative use of multi-camera techniques for studio and remote productions. Emphasis on directing, advanced lighting techniques, sound design, graphics, and remote truck equipment. Focus on dramatic formats, magazine-style, and large event productions. Prerequisites: COM 322, major status, or permission of instructor. COM 341 is recommended.
COM 427. Grant Writing/Fund Raising
(3). Students will learn to write grants, conduct fund-raising efforts, and other forms of revenue generation in non-profit organizations. Prerequisites: COM 312 and АССТ 301.
COM 431. Editing for Television and Film (4). History, concepts, and techniques of editing for film and television. Hands-on learning by editing diverse scenes using Final Cut software. Combination lecture/ lab. Prerequisites: COM 341 and / or COM 315, major status in Broadcast Journalism or Film and Video Studies.
COM 432. Directing TV and Film
(4). Examines director's role and responsibilities, process of translating the written word into image and action; basics of camera-actor blocking; editing dialogue scenes; organizing production venues, and logistics of in-studio and on-location programs. Prerequisites: COM 322 or COM 341. Combined lecture/ workshop.

COM 440. Corporate Media Production
(4). A study of methods used in the conceptualization, design, and production of non-broadcast video programs. Consideration of management needs and training requirements. Prerequisite: COM 341 and major status or permission of the instructor.
COM 441. Documentary Production (4). Detailed analysis of the creative and technical elements of documentary production. Emphasizes "hands-on" application of production techniques for documentary storytelling from concept
through to final product. Prerequisite: COM 341, major status, and permission of the instructor. COM/ENG 355 recommended. Combined lecture/ workshop.
COM 442. NewsWatch Reporting (2). Gather, write, and report news stories for newscasts and public affairs programs on Ellensburg Community Television, cable Channel 2, and CWU-TV, cable Channel 15. Prerequisites: COM 310 and COM 321, and either COM 336 or COM 342, and major status or permission of instructor. May be repeated to a limit of 6 credits.
COM 446. Convergence Publishing (2).
Gather, write, and report news and feature stories for the Web. Prerequisite: major status, or permission of the instructor. May be repeated for up to 6 credits.
COM 450. Advanced Public Speaking (4). Preparation and delivery of specialized forms of public address. Writing speeches for others, advanced forms of style and support, and speeches for special occasions. Prerequisite: COM 250 or COM 345 and major status or permission of instructor.
COM 451. Communication Analysis and Research (4). Theory and practice in and study of methodology for gathering and analyzing data on human communication. Behavior identification, instrument types and uses, and assessment strategies. Prerequisites: COM 401 and major status, or permission of the instructor.
COM 452. Applied Video Production (12). Assist in producing newscasts, public affairs, and / or entertainment programs for Ellensburg Community Television, and KCWU-TV. Prerequisites: COM 322 or by permission of the instructor. COM 341 recommended. May be repeated to a limit of 6 credits.
COM 456. History and Practice of Convergent Gaming (4). Course emphasizes the design and practice of roleplaying games, with a significant focus on computer-based Massive Multi-user Online Role Play Games (MMORPGs). The course will look at the economics, culture, art, design, and history of the rapidly growing role playing game market. Prerequisite: major status or permission of the instructor.
COM 460. Communication Law (4).
Understanding legal issues for the communication professions including libel, slander, privacy, copyright, and First Amendment. Prerequisite: COM 201, COM 333, major status, or by permission of the instructor.
COM 462. NewsWatch Management (2). Administrative responsibilities for the production of NewsWatch and related public affairs programs on Ellensburg Community Television, Cable Channel 2, and CWU-TV, Channel 15. Prerequisites: COM 322, and COM 341, and COM 432, and COM 442, and major status, or permission of instructor. May be repeated for up to 6 credits.
COM 465. Communication and
Organizational Leadership (4). Conflict
resolution is an integral part of effective communication and productive relationships. This course focuses on the theory and practice of mediation and conflict. Prerequisites: COM 365 and major status.
COM 466. Investigative Reporting (4). This class teaches the skills needed to conceive, report, and write investigative stories based on document, data, and interviews to be published in newspapers, magazines, and online publications.
Prerequisites: COM 308 and major status, or permission of the instructor.
COM 467. Advanced Narrative
Screenwriting (4). Intensive workshop oriented toward techniques for creating or rewriting an original or adapted script for film/TV. Emphasizes narrative development, detailed script analysis, and character motivation. Creation of a featurelength script for film or TV using the craft of the screenwriter to convey mood, energy, character, structure, and intent. Prerequisite: permission of instructor. Course is equivalent to ENG 467. Students may not receive credit for both.
COM 468. Observer (1-2). Reporting and photo assignments on the campus newspaper. Prerequisites: COM 208 or permission of the instructor. May be repeated to a limit of 6 credits.
COM 469. Media and Cultural Studies (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. Prerequisite: COM 369 and permission of the instructor. COM 469 and COM 569 are equivalent courses. Students may not receive credit for both.
COM 470. Public Relations Strategies (5). Creation of a public relations program for an organization, agency, or institution. Prerequisite: COM 370 and major status, or permission of the instructor.
COM 472. Global Public Relations (4). This course studies public relations from a global perspective. It provides an international point of view for public relations theories, strategies, and practices. It also compares cultures and investigates the interaction of cultures from a cultural, social, political, and legal perspective. Prerequisite: COM 370 and major status, or permission of the instructor.
COM 473. Corporate Reputation
Management (4). Corporate reputation management is concerned with all of an organization's stakeholders and the multifaceted way in which an organization communicates (customers, investors, employees, etc.). Prerequisites: COM 270, COM 370, and major status, or permission of the instructor.
COM 474. Public Opinion (4). Monitoring,
assessing, and managing public opinion. Prerequisite: major status or permission of instructor.
COM 475. Public Relations and Advertising Management (4). Application of theory and concepts to managing public relations and advertising accounts. Prerequisite: COM 470, major status, or by permission of the instructor.
COM 478. Advanced Newspaper Editing (3-6). Administrative responsibilities for students serving as editors of the campus newspaper. Variable credit with a maximum of 6 credits. Prerequisite: COM 208, COM 347, COM 468, and permission. May be repeated.
COM 485. Senior Seminar (4). A research project leading to a thesis. Prerequisites: COM 401 and major status, or permission of the instructor.
COM 486. Advanced Journalism Seminar (3). Issues and skills in specialized journalistic situations. Seminar topics will change from quarter to quarter. Prerequisites: COM 308, major status, or by permission of the instructor. Class may be repeated for up to 9 credits.
COM 487. Public Relations Professional Seminar (3). Advanced Public Relations Seminar topics will change from quarter to quarter. Prerequisite: COM 470 and Public Relations major status. Course may be repeated for credit.
COM 489. Portfolio Assessment (1). End of program assessment activities. Preparation, presentation, and evaluation of a professional portfolio of work produced during the major. Prerequisite: major status, senior standing.
COM 490. Cooperative Education (1-12).
Individual contract arrangement involving student, faculty, and cooperating agency to gain practical experience in communication. Prerequisite: major status and approval of department chair. Grade will be $\mathrm{S} / \mathrm{U}$.
COM 491. Workshop (1-6).
COM 496. Individual Study (1-6).
Prerequisite: permission of instructor.
COM 498. Special Topics (1-6).
COM 499. Seminar (1-5).

## ENGLISH DEPARTMENT

Ellensburg
Language and Literature Bldg., room 423
509-963-1546
Fax: 509-963-1561
www.cwu.edu/ ~english
See the English department Web site for additional information on undergraduate and graduate education and career opportunities in English.

## Faculty and Staff <br> Chair <br> George Drake, PhD

Professors
Laila Abdalla, PhD, English Medieval and Renaissance literature
Liahna Armstrong, PhD, American literature, popular culture, film
Patricia Callaghan, DA, rhetoric, world literature, English education
Toni Culjak, PhD, American, world and multicultural literature, film
Bobby Cummings, PhD, rhetoric, English education, computer composition
Loretta Gray, PhD, applied linguistics, composition, TESOL
Charles Xingzhong Li, PhD, linguistics, TESOL, linguistic approaches to literature
Teresa Martin, PhD, English education, women's literature
Steven Olson, PhD , American literature, film
Paulus Pimomo, PhD, British literature, post colonial studies
Joseph Powell, MFA, creative writing, modern poetry
Sura Rath, PhD, literary theory, literature of the South
Gerald J. Stacy, PhD, English Renaissance literature
Christine A. Sutphin, PhD, Victorian literature, English novel, women's literature

## Associate Professor

George Drake, PhD, British literature, literary theory
Christopher Schedler, PhD, American and multicultural literature
Katharine Whitcomb, MFA, creative writing

## Assistant Professors

Karen Gookin, MA, general education, technical writing
Virginia Mack, PhD, general education, Irish literature
Lisa Norris, MFA, creative writing

## Emeritus Professors

Philip B. Garrison, MA, non-fiction, poetry writing, world, and Chicano literature
Mark W. Halperin, MFA, poetry writing, folk literature, modern poetry
John L. Vifian, PhD 18th-century literature, English novel

## Senior Lecturers

Ruthi Erdman, MA
Patricia Garrison, MA
Lila Harper, PhD
Robert Schnelle, MA

## Lecturers

Steven A. Brooks, MA
Stephanie Dringenberg, MA
Arlo Fleming, MA
Shari Foster, MA
Colin Hester, MFA
Karen Hull, MA
Marisa Humphrey, MA
Melissa Johnson, MA
Anne Joiner, MA (Des Moines)
Kevin Leaverton, MA
Polyxeni Tenerelli, PhD

## Staff

Theresa Stevens, secretary supervisor Jo Richards, office assistant II

## Department Information

The department of English offers undergraduate and graduate courses in American, British, and world literature, English language and linguistics, English education, film study, and professional and creative writing. The study of English helps students to develop and enhance skills in critical analysis and written and oral communication. English program graduates pursue a variety of careers, including business, education, government, law, publishing, and writing.

## Departmental Honors in English

The honors program in English recognizes the superior scholarship of qualified majors. To qualify for the program, students must have a minimum GPA of 3.4 overall and 3.7 in English and be recommended by three faculty members. In addition to their regular course of study, qualified students complete an individual study course culminating in an honors paper. A student whose honors paper is accepted will graduate with departmental honors in English. For additional details, consult the department Web site.

## Bachelor of Arts in English

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Bachelor of Arts English Language and Literature Major

The study of literature trains students in reflective reading, theoretically based inquiry, critical analysis, and effective verbal and written expression. Students are taught to analyze literary works as representations of literary genres and in historical and cultural contexts as well as to examine literary influence and explore literature through the lens of critical theory. Majors are expected to complete English 302 and English 303 prior to enrolling in other upper-division major requirements.

## Required Courses

ENG 302 - Poetry and Poetics . . . . . . . . . . . . . 4
ENG 303 - Principles of English Studies . . . . 4
ENG 320 - English Grammar . . . . . . . . . . . . . 4
ENG 489 - Senior Colloquium .............. . . 2
Select two theory or genre courses . . . . . . . . 8
ENG 340 - The Short Story (4)
ENG 383 - Literary and Critical
Theory (4)
ENG 448 - World Novel I (4)
ENG 451 - The English Novel I (4)
ENG 452 - The English Novel II (4)

ENG 475 - Modern Poetry (4)
ENG 478 - American Novel I (4)
ENG 479 - American Novel II (4)
Select one language and linguistics course. 4
ENG 304 - English Linguistics (4)
ENG 423 - History of the Language (4)
Select four period courses $\qquad$
ENG 305 - English Literature I (4)
ENG 306 - English Literature II (4)
ENG 307 - English Literature III (4)
ENG 308 - American Literature I (4)
ENG 309 - American Literature II (4)
Select one Shakespeare course . . . . . . . . . . 4
ENG 361 - Shakespeare: The Earlier Plays (4)

ENG 362 - Shakespeare: The Later Plays (4)
Select one focused studies course. . . . . . . . 4
ENG 410 - Focused Studies in English Literature (4)
ENG 411 - Focused Studies in American Literature (4)
ENG 414 - Focused Studies in World Literature (4)
Select two comparative/cultural
courses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8
(One of which must be 330, 331, 332, or 333.)

ENG 328 - World Literature I (4)
ENG 329 - World Literature II (4)
ENG 330 - African American
Literature (4)
ENG 331 - Latina/ o Literature (4)
ENG 332 - American Indian Literature (4)
ENG 333 - Asian American Literature (4)
ENG 334 - American Indian Oral and
Non- Fiction Literature (4)
ENG 335 - Women's Literature (4)
Select one Writing course . $\qquad$
ENG 263 - Introduction to Creative Writing (4)
ENG 364 - Fiction Writing (4)
ENG 365 - Poetry Writing (4)
ENG 366 - Creative Nonfiction Writing (4)
ENG/COM 367 - Narrative Screenwriting (4)
ENG 464 - Advanced Fiction Writing (4)
ENG 465 - Advanced Poetry Writing (4)
ENG 466 - Advanced Creative Nonfiction Writing (4)
ENG/COM 467 - Advanced Narrative Screenwriting (4)
ENG 468 - Contemporary Writers Colloquium (4)
Approved Electives . . . . . . . . . . . . . . . . . . . . 8 Select 8 credits of English literature, language, or film studies (Elective credits may be taken from any English literature, language, or film studies course at the 300 -level or above. No more than 5 credits of film studies may be counted as elective credits in the English language and literature major.)

Total Credits: 70

## English: Writing Specialization

The specialization combines a liberal arts background in literature with specialized writing courses in creative writing (fiction, poetry, creative nonfiction, screenwriting), business writing, professional writing, scientific and technical writing, editing, and publishing. Students in this specialization are expected to complete ENG 301 and ENG 303 prior to enrolling in other upper-division major requirements.

## Required Courses

ENG 301 - Introduction to Professional
Writing
ENG 302 - Poetry and Poetics . . . . . . . . . . . . . 4
ENG 303 - Principles of English Studies . . . . 4
ENG 320 - English Grammar . . . . . . . . . . . . . 4
ENG 323 - Writing and Editing for
Publication . . . . . . . . . . . . . . . . . . . . . . . . . 4
ENG 489 - Senior Colloquium . . . . . . . . . . . . 2
Approved Writing Electives . . . . . . . . . . . . . 36
Select 36 credits from a combination of Creative Writing, Professional Writing and Editing, and Practicum courses (at least two credits of which must come from a practicum course). At least one 400-level elective class is required.
Creative Writing Courses:
ENG 263 - Introduction to Creative Writing (4)
ENG 364 - Fiction Writing (4)
ENG 365 - Poetry Writing (4)
ENG 366 - Creative Nonfiction Writing (4)
ENG/COM 367 - Narrative Screenwriting (4)
ENG 464 - Advanced Fiction Writing (4)
ENG 465 - Advanced Poetry Writing (4)
ENG 466 - Advanced Creative Nonfiction Writing (4)
ENG / COM 467 - Advanced Narrative Screenwriting (4)
ENG 468 - Contemporary Writers Colloquium (4)
TH 313 - Writing for Children's Theatre (4)
TH 330 - Introduction to Playwriting (4)
TH 430 - Script Writers Workshop (4)
Professional Writing and Editing Courses:
ADMG 385 - Business Communications and Report Writing (5)
COM 201 - Media and Culture (4)
COM 208 - Intro to Public Relations Writing (4)
COM 347 - Copy Editing (4)
COM 348 - Publication Design (3)
ENG 310 - Technical Writing (4)
ENG 402 - Writing Center Theory and Practice (4)
ENG 404 - Advanced Technical Writing (4)
IT 248 - Web Fundamentals (2)
IT 288 - Business Presentation
Applications (2)
LAJ 410 - Legal Writing (4)
Practicum Courses (select 2 credits):
COM 468-Observer (1-2)

ENG 403 - Writing Center Practicum (2)
ENG 485 - Manastash (2)
ENG 490 - Cooperative Education (1-12)

## Literature, Language, and Film Courses . . 16

Select 16 credits of literature, language, and film courses at or above the $300-l e v e l$. No more than five credits of film studies may be counted as elective credits in the Writing Specialization.

Total Credits: 74

## Bachelor of Arts <br> English/Language Arts Teaching Major

This major satisfies the endorsement for English/language arts. Majors must complete the Teacher Preparation Program requirements for secondary certification available through the education department. Majors are expected to complete ENG 302 and ENG 303 prior to enrolling in other upperdivision major requirements. English 422, 430 , and 492 are required prior to student teaching. English 430 and 492 must be taken concurrently. All other major requirements must be completed before enrollment in or taken concurrently with ENG 488.

## Required Courses

ENG 222 - Multicultural Literature for Teachers

Poetry and Poetics . . . . . . . . . . . . . . . . 4
ENG 303 - Principles of English Studies . . . . 4
ENG 304 - English Linguistics . . . . . . . . . . . . 4
ENG 320 - English Grammar . . . . . . . . . . . . . 4
ENG 422 - Teaching Young Adult
Literature . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Prerequisite: admission to Teacher
Preparation Program and 15 credits of professional sequence.
ENG 424 - Teaching Reading and Viewing in High School
ENG 430 - Teaching Writing in the Secondary School .4
Prerequisite: EDCS 311 and
28 credits in English.
ENG 488 - Teaching Portfolio . . . . . . . . . . . . . 2
ENG 492 - Practicum . . . . . . . . . . . . . . . . . . . 2
Requires concurrent enrollment in ENG 430.
Select one Theory or Genre course.
ENG 340 - The Short Story (4)
ENG 383 - Literary and Critical Theory (4)
ENG 448 - World Novel I (4)
ENG 451 - The English Novel I (4)
ENG 452 - The English Novel II (4)
ENG 475 - Modern Poetry (4)
ENG 478 - American Novel I (4)
ENG 479 - American Novel II (4)
Select four Period courses with at least one from each group. 16
Group One
ENG 305 - English Literature I (4)
ENG 306 - English Literature II (4)
ENG 307 - English Literature III (4)

Group Two
ENG 308 - American Literature I (4)
ENG 309 - American Literature II (4)
Group Three
ENG 328 - World Literature I (4)
ENG 329 - World Literature II (4)
Select one Writing course $\qquad$
ENG 263 - Introduction to Creative Writing (4)
ENG 364 - Fiction Writing (4)
ENG 365 - Poetry Writing (4)
ENG 366 - Creative Nonfiction Writing (4)
Select one Shakespeare course
ENG 361 - Shakespeare: The Earlier Plays (4)
ENG 362 - Shakespeare: The Later Plays (4)

Select one Focused Studies course . . . . . . . . 4
ENG 410 - Focused Studies in English Literature (4)
ENG 411 - Focused Studies in American Literature (4)
ENG 414 - Focused Studies in World Literature (4)

Total Credits: 68

## English Language and Literature Minor

As with the English major, the English minor trains students in reflective reading, theoretically based inquiry, critical analysis, and effective verbal and written expression. The skills developed in the English minor readily complement a wide variety of majors across the university.

## Required Courses

ENG 302 - Poetry and Poetics . . . . . . . . . . . . . 4
ENG 303 - Principles of English Studies . . . . 4
Select two Period courses . . . . . . . . . . . . . . . . 8
ENG 305 - English Literature I (4)
ENG 306 - English Literature II (4)
ENG 307 - English Literature III (4)
ENG 308 - American Literature I (4)
ENG 309 - American Literature II (4)
Select one Focused Studies course . . . . . . . . 4
ENG 361 - Shakespeare: The Earlier Plays (4)
ENG 362 - Shakespeare: The Later Plays (4)
ENG 410 - Focused Studies in English Literature (4)
ENG 411 - Focused Studies in American Literature (4)
ENG 414 - Focused Studies in World Literature (4)
Select one Comparative/Cultural
Studies course. . . . . . . . . . . . . . . . . . . . . . . . 4
ENG 328 - World Literature I (4)
ENG 329 - World Literature II (4)
ENG 330 - African American Literature (4)
ENG 331 - Latina / o Literature (4)
ENG 332 - American Indian Literature (4)
ENG 333 - Asian American Literature (4)

ENG 334 - American Indian Oral and
Non- Fiction Literature (4)
ENG 335 - Women's Literature (4)
Select one Language course . $\qquad$
ENG 304 - English Linguistics (4)
ENG 320 - English Grammar (4)
ENG 423 - History of the Language (4)
Approved Electives. . . . . . . . . . . . . . . . . . . . . . 4
Select one literature or language course at the 300-level or above.

Total Credits: 32

## Creative Writing Minor

Required Courses
ENG 302 - Poetry and Poetics . . . . . . . . . . . . . 4
ENG 303 - Principles of English Studies . . . . 4
Select five writing courses . . . . . . . . . . . . . . 20
ENG 263 - Introduction to Creative
Writing (4)
ENG 364 - Fiction Writing (4)
ENG 365 - Poetry Writing (4)
ENG 366 - Creative Nonfiction
Writing (4)
ENG/COM 367 - Narrative
Screenwriting (4)
ENG 464 - Advanced Fiction Writing (4)
ENG 465 - Advanced Poetry Writing (4)
ENG 466 - Advanced Creative Nonfiction Writing (4)
ENG / COM 467 - Advanced Narrative Screenwriting (4)
ENG 468 - Contemporary Writers Colloquium (4)
TH 330 - Introduction to Playwriting (4)
TH 430 - Script Writers Workshop (4)
Select one literature course
from the following. . . . . . . . . . . . . . . . . . . .
ENG 340 - The Short Story (4)
ENG 452 - The English Novel II (4)
ENG 475 - Modern Poetry (4)
ENG 479 - American Novel II (4)
Total Credits: 32

## Linguistics Minor

The Linguistics minor allows students to gain a broader understanding of language and language acquisition. It draws on multiple disciplines and complements a wide range of majors.

## Required Courses

ENG 320 - English Grammar . . . . . . . . . . . . . . 4
ENG 304 - English Linguistics. . . . . . . . . . . . . . 4
ENG 432 - Phonetics and Phonology . . . . . . . 4
ENG 437 - Pedagogical Grammar. . . . . . . . . . . 4
Select four approved electives from
the following or other courses by
advisement.
.9-12
ANTH/ENG 180 - Introduction to Linguistics (5)
ANTH 381 - Language in Culture (4)
ANTH 382 - Descriptive Linguistics (4)
ANTH/WS 384 - Language and Gender (4)
COM 302 - Intercultural
Communication (4)

EDBL 433 - Educational Linguistics (3)
ENGL 438 - Teaching English as a Second Language (3)
EDBL 440 - Development of Literacy with Linguistically Diverse Students (3)
ENG 423 - History of the Language (4)
ENG 434 - Discourse Analysis (4)
ENG 435 - Linguistic Approaches to Literature (4)
ENG 496 Individual Study (1-6)
FNLA 481 - Methods and Materials for Language Teaching (4)
FNLA 482 - Foreign and Second Language Acquisition (4)
FNLA / ANTH 483 - Sociolinguistics (4)
Total Credits: 25-28

## Professional Writing Certificate

The Professional Writing Certificate allows students to develop their writing skills for professional and business environments. It is delivered entirely online to serve professionals already working in careers as well as students planning to begin professional or business careers. Students will learn the rhetorical requirements for specific forms of written communication, including letters, memos, reports, proposals, promotional materials, and press releases. They will also learn to edit their own writing for clarity, correctness, and style.

## Required Courses

ENG 301 - Introduction to Professional Writing
ENG 310 - Technical Writing . . . . . . . . . . . . . . . 4
COM 347 - Copy Editing . . . . . . . . . . . . . . . . . . 4
COM 370 - Writing for Public Relations . . . . 4
Total Credits: 16

## English Courses

ENG 100T. Transitional English (4). A study of academic written English with review of sentence- and paragraph-writing skills, such as word usage, sentence structure, organization, grammar, and mechanics with a reading component to improve comprehension of academic English; students will learn to write unified, coherent paragraphs and short compositions. Course may be repeated. Credits will not be allowed toward meeting bachelor's degree requirements. Grade will be $S$ or U.
ENG 101. Composition I: Critical Reading and Responding (4). Develops skills necessary for academic writing, including summarizing, reading sources critically and responding to them, synthesizing multiple perspectives, and using academic writing conventions. Prerequisite: adequate ACT, COMPASS, or SAT scores. Students must earn a minimum grade of C - or above to enroll in ENG 102.
ENG 102. Composition II: Reasoning and Research (4). Develops skills in researchbased academic argument through
assignments involving evaluation, analysis, and synthesis of multiple sources. Prerequisite: a minimum grade of C - or above in ENG 101 or exemption from 101.
ENG 105. The Literary Imagination: An Introduction to Literature (4). Human experience as it is imagined, interpreted, and made significant in the poetry, prose, fiction, and drama of the major writers of the world. For general education (breadth) credit. Prerequisite: Grade of C - or above in ENG 101; must be taken for grade.
ENG 180. Introduction to Linguistics (5). Backgrounds, developments, and relation to other fields of study. ENG 180 and ANTH 180 are equivalent courses. Students may not receive credit for both.
ENG 222. Multicultural Literature for Teachers (4). Prospective secondary English language arts teachers will read and respond to various genres of multicultural/ world literature and develop methods and assignments for teaching texts that invite students to think critically and use evidence to support their viewpoints. Prerequisites: ENG 101, ENG 102, ENG 105 , or equivalents, and admission to the English Teaching major.
ENG 247. Multicultural Literature (4). Literary themes examined through the comparison of works from various cultures. Prerequisite: grade of C- or above in ENG 101.

ENG 263. Introduction to Creative Writing
(4). An introduction to the creative writing genres: poetry, fiction, screenwriting, and creative nonfiction. Examines the rhetorical forms and expectations of each in a workshop format.
ENG 296. Individual Study (1-6).
ENG 298. Special Topics (1-6).
ENG 299. Seminar (1-5).
ENG 301. Introduction to Professional Writing (4). Study in writing purposes, styles, and genres. Prerequisites: ENG 102.
ENG 302. Poetry and Poetics (4). Offers practice in the interpretive reading of poetry, focusing on the elements of poetry and poetic theory.
ENG 303. Principles of English Studies
(4). Provides critical reading and writing strategies necessary to studies in English; introduces the expectations and requirements of the major.
ENG 304. English Linguistics (4). Students learn to perform linguistic analysis of aspects of English and to use linguistic concepts to examine literary texts.
ENG 305. English Literature I (4). Historical and critical studies in English literature from Beowulf through Milton. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 306. English Literature II (4). Historical and critical studies in English literature from 1660-1832. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.

ENG 307. English Literature III (4). Historical and critical studies in English literature
from 1832 to present. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 308. American Literature I (4). Historical and critical studies in American literature from the beginning to 1865 . Prerequisites for all English majors and minors only: ENG 302 and ENG303.
ENG 309. American Literature II (4).
Historical and critical studies in American literature from 1865 to the present.
Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 310. Technical Writing (4). Practice in writing and editing technical reports. Prerequisite: ENG 102 and junior standing.
ENG 320. English Grammar (4). A review of the concepts, terminology, and historical development of traditional grammar, the parts of speech and their functions in sentences, the elements of the sentence and its various patterns.
ENG 323. Writing and Editing for
Publication (4). This class addresses writing for publications, prepares students with publication strategies, as well as examines what editors look for and what their job entails. Prerequisite: ENG 320.
ENG 328. World Literature I (4). Poetry and prose of both Western and non-Western civilization to 1500 . Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 329. World Literature II (4). Poetry and prose of both Western and non-Western civilization from 1500 to the present. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 330. African American Literature (4). Study of literature by African Americans.
ENG 331. Latina/o Literature (4). Study of literature by Latina/o writers.
ENG 332. American Indian Literature (4). Study of literature by American Indians.
ENG 333. Asian American Literature (4). Study of literature by Chinese, Japanese, Korean, Vietnamese, and other Asian/ American writers.
ENG 334. American Indian Oral and NonFiction Literature (4). An examination of American Indian oral and non-fiction literature including myth, legend, oratory, ritual and ceremony, and forms of autobiography, including coup tales, boarding school narratives, etc.
ENG 335. Women's Literature (4). Examines women's literature in light of contemporary feminist literary theories. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 340. The Short Story (4). Extensive reading and analysis of short stories, including both older and modern writers. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 344. Film Theory and Criticism (5). The study of film as an art form, a technological system, an industry, and a social force. Prerequisite: FVS 250.

ENG 347. Global Perspectives in Literature
(4). An introduction to contemporary non-Western and third-world literature. Prerequisites: ENG 101 with grade of C- or better; must be taken for grade.
ENG 353. History of Narrative Film (4). A history of the development of narrative film as an art form and cultural medium, with primary focus on Hollywood cinema. Prerequisite: FVS 250. ENG 353 and COM 353 are equivalent courses. Student may not receive credit for both.
ENG 354. History of Television (4). Historical survey of television as an entertainment, information, and art medium. Emphasis on understanding the cultural, social, political, technological, and economic conditions of production; the examination of television as text itself; and TV's impact on audiences. Prerequisites: COM 201 or FVS 250 or permission of the instructor. ENG 354 and COM 354 are equivalent courses. Students may not receive credit for both.
ENG 355. History of Documentary (4). Survey of documentary history from 1895 to present. Focus on philosophy of documentary approach, overview of the most important topics and issues, and development of critical standards in the genre. Prerequisites: COM 201 or FVS 250 and permission of instructor. ENG 355 and COM 355 are equivalent courses. Students may not receive credit for both.
ENG 360. World Cinema (5). An overview of world cinema, with attention to the national film cultures of important film-producing countries (such as India, France, Japan) and a comparison of international films with mainstream Hollywood cinema.
ENG 361. Shakespeare: The Earlier Plays (4). Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 362. Shakespeare: The Later Plays (4). Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 364. Fiction Writing (4). An introduction to the varieties of literary fiction being written today, the techniques and strategies for writing fiction, as well as developing criteria for evaluating the effectiveness of student stories. Prerequisites: ENG 263 and permission of the instructor.
ENG 365. Poetry Writing (4). A workshop that introduces the varieties of forms, styles, voices, and strategies for writing poetry. Emphasizes reading professional models and the development and application of criteria for evaluating and revising poems. Prerequisites: ENG 263 or permission of the instructor.
ENG 366. Creative Nonfiction Writing (4). A workshop that considers the varieties and forms of the creative essay and its historical evolution. Emphasizes reading professional models, the uses of research, and the development and application of criteria for evaluating and revising essays. Prerequisites: ENG 263 or permission of the instructor.

ENG 367. Narrative Screenwriting (4).
Writing screenplays in combination with the study of models and techniques. Prerequisites: COM 201 or FVS 250, or permission of the instructor. COM 367 and ENG 367 are cross-listed courses. Students may not receive credit for both.
ENG 381. British Drama (4). Origins to present. Prerequisites for all English department majors and minors only: ENG 302 and ENG 303. ENG 381 \& TH 381 are equivalent courses. Students may not receive credit for both.
ENG 383. Literary and Critical Theory (4). An investigation of the theory and practice of various critical perspectives and strategies as they inform the study of literary texts. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 391. Workshop (1-5).
ENG 398. Special Topics (1-6).
ENG 402. Writing Center Theory and Practice
(4). Explore the benefits and techniques of one-on-one and peer consulting. Study language skills and improve understanding of writing in various genres, contexts, and cultures. Prerequisite: grade of B or better in ENG 102.
ENG 403. Writing Center Practicum (2). Consulting with student writers in the University Writing Center, observing others' consultations, reflecting, and improving one-on-one skills. Prerequisites: ENG 402 and permission of the instructor. Grade will be $S$ or $U$.
ENG 404. Advanced Technical Writing
(4). Practice in designing, constructing, evaluating, and testing technical documents for specific purposes and organizational cultures. Prerequisite: ENG 310 or permission of the instructor
ENG 410. Focused Studies in English Literature (4). Intensive study of a group of texts focused by theme, author, theoretical approach, or social and historical context. Prerequisites for all English majors and minors only: ENG 302 and ENG 303. May be repeated for credit under a different subtitle.
ENG 411. Focused Studies in American Literature (4). Intensive study of a group of texts focused by theme, author, theoretical approach, or social and historical context. Prerequisites for all English majors and minors only: English 302 and 303. May be repeated for credit under a different subtitle.
ENG 414. Focused Studies in World
Literature (4). Intensive study of a group of texts focused by theme, author, theoretical approach, or social and historical context. Prerequisites for all English majors and minors only: ENG 302 and ENG 303. May be repeated for credit under a different subtitle.
ENG 422. Teaching Young Adult Literature
(4). A study of literature written for middle level and early high school students. Prerequisites for all English majors and minors only: ENG 302 and ENG
303. Prerequisite: admission to Teacher Preparation Program and completion of at least 15 credits of professional sequence.
Prerequisite to EDCS 442, Student Teaching.
ENG 423. History of the Language (4). In this course, students examine the systematic, evolutionary nature of language by focusing on the development of the English language.
ENG 424. Teaching Reading and Viewing in High School (4). Course focuses on the theory and practice of teaching reading and viewing strategies appropriate for print and non-print texts in high school classrooms.
ENG 430. Teaching Writing in the Secondary School (4). Theory into practice course on teaching writing including writing process strategies, assignment, design, assessment, and teacher research. Prerequisite: EDCS 311 and 28 credits in English. Must enroll concurrently in ENG 492.
ENG 432. Phonetics and Phonology (4). Study of English phonetics and phonology as well as pronunciation pedagogy. Prerequisite: ENG 304.
ENG 434. Discourse Analysis (4). Linguistic approaches to literature with an emphasis on poetry and prose. Prerequisite: ENG 304.
ENG 435. Linguistic Approaches to
Literature (4). Linguistic approaches to literature with an emphasis on poetry and prose. Prerequisites: ENG 304, or ENG 423.
ENG 437. Pedagogical Grammar (4). Study of English grammar and approaches to grammar instruction. Prerequisite: ENG 320.

ENG 448. World Novel I (4). Earlier outstanding world novels in translation. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 451. The English Novel I (4). Intensive study of representative English novels of the 18th and earlier 19th centuries. Prerequisites for all English majors and minors only: English 302 and 303.
ENG 452. The English Novel II (4). Intensive study of representative English novels of the later 19th and 20th centuries. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 461. Studies in Film and Culture (5). A critical examination of how American films both construct and appropriate images of American racial, ethnic, and cultural minorities. Course explores images of minorities created by the dominant culture from silent film era to contemporary movies and compares these constructions to those created by minority filmmakers. May be repeated for credit under a different subtitle. Variable topic.
ENG 462. Studies in Film and/or Television Genres (5). An examination of a film and/ or television genre; history, aesthetics, cultural context, social significance, and critical methodologies. Prerequisite: FVS 250. May be repeated for credit under a different subtitle. Variable topic.
ENG 463. Studies in the Film Auteur (5). Indepth examination of the major cinematic
works of a selected auteur director, such as Hitchcock, Chaplin, Kurosawa, W. Allen, Zhang Yimou, etc., with attention to major stylistic and thematic practices. Prerequisite: FVS 250. May be repeated under different titles. Variable topic.
ENG 464. Advanced Fiction Writing (4). Intensive workshop further developing the techniques of writing literary fiction: weaving together character development, plot, dialogue, exposition, setting, and thematic structure. Emphasizes the development of criteria for evaluating and improving literary fiction, as well as reading professional models to learn technique. Prerequisite: ENG 364 or instructor's permission.
ENG 465. Advanced Poetry Writing (4). Intensive workshop further examining the genres within poetry, as well as experimenting with forms, discursive structures, and voice; revising for economy and precision; exploring metrical effects. Prerequisite: ENG 365 or permission of the instructor.
ENG 466. Advanced Creative Nonfiction Writing (4). Intensive workshop further developing the techniques of writing creative nonfiction: researching, editing, assimilating features of fiction and poetry, and experimenting with structure, voice, and style. Reading professional models to learn technique. Prerequisite: ENG 366 or permission of the instructor.
ENG 467. Advanced Narrative Screenwriting (4). Intensive workshop oriented toward techniques for creating or rewriting an original or adapted script for film/ TV. Emphasizes narrative development, detailed script analysis, and character motivation. Creation of a feature-length script for film or TV using the craft of the screenwriter to convey mood, energy, character, structure, and intent. Prerequisite: COM 309 or ENG 367, or permission of the instructor. This course is equivalent to COM 467. Students may not receive credit for both.
ENG 468. Contemporary Writers Colloquium
(4). Genre-specific seminar (poetry or fiction) with writing workshop element, featuring a schedule of visiting writers. Students will read work by visiting writers, develop critical thinking about craft, attend readings, explore contemporary publishing issues, and write both analytical papers and creative work. Prerequisite: ENG 364 or ENG 365.
ENG 475. Modern Poetry (4). Study of the major poets and the major developments in the poetry of the modern world, particularly in England and the United States. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 478. American Novel I (4). Intensive study of representative American novels from the beginning of American literature to 1939. Prerequisites for all English majors and minors only: English 302 and 303.

ENG 479. American Novel II (4). Intensive study of representative American novels from 1940 to the present. Prerequisites for all English majors and minors only: ENG 302 and ENG 303.
ENG 480. Survey of Linguistics (4). Linguistic concepts and the relation between linguistics and other fields of study. Open to seniors and graduate students only. ENG 480 and ANTH 480 are equivalent courses. Students may not receive credit for both.
ENG 485. Manastash (2). Students will select and edit manuscripts for publication in, as well as design and construct, the Manastash literary journal. Prerequisites: ENG 301 and ENG 303. May be repeated for up to 8 credits.
ENG 488. Teaching Portfolio (2). Students prepare an end-of-program E-Portfolio, which illustrates their mastery of major program and professional sequence competencies. Prerequisites: admission to Teacher Preparation Program, and prior or concurrent completion of all other major requirements. Grade will be $S$ or $U$.
ENG 489. Senior Colloquium (2). Students prepare an end-of-major portfolio that illustrates their competence in interpreting and composing. Prerequisites: all other major requirements completed or to be completed concurrently with enrollment in this course; admission by permission.
ENG 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. Requires a studentlearning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated for a total of 12 credits. Grade will be S or U .
ENG 491. Workshop (1-10). Designed to give an opportunity for individual and group study of problems in the teaching of English.
ENG 492. Practicum (2). Practice planning instruction, teaching, and assessing learning. Prerequisites: EDCS 311 and 28 credits in English or permission of instructor. Must enroll concurrently in ENG 430. Grade will be $S$ or $U$.

ENG 496. Individual Study (1-6).
Prerequisite: permission of instructor.
ENG 498. Special Topics (1-6).
ENG 499. Seminar (1-5).

## FILM AND VIDEO STUDIES PROGRAM

Ellensburg
Bouillon Hall, room 225

## 509-963-1067

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See the film and video studies program Web site for additional information on graduate education and career opportunities in film and video studies.

## Faculty and Staff

Program Director
Michael R. Ogden, PhD, communication

## Professors

Liahna Armstrong, PhD, English
Patricia Callaghan, DA, English
Toni Culjak, PhD, English
Kelton Knight, PhD, foreign languages
Stella Moreno, PhD, foreign languages
Michael R. Ogden, PhD, communication
Steven Olson, PhD, English
Michael J. Smith, MFA, theatre arts

## Associate Professors

Lois Breedlove, MA, communication
Jeffrey Dippmann, PhD, philosophy and religious studies
Roxanne Easley, PhD, history
Robert Fordan, MA, communication Matt Manweller, PhD, political science Lene Pederson, PhD , anthropology
Dieter Romboy, PhD, foreign languages

## Assistant Professors

Christina Barrigan, MFA, theatre arts Steven Jackson, MA, communication Maria Sanders, MA, communication
Christopher Schedler, PhD, English


## Program Information

The Film and Video Studies program is an innovative, interdisciplinary, undergraduate program leading to a BA in film and video studies. Students complete a sequence of core courses and choose a specialization in either critical studies or production. Students may choose to complete both specializations, but may count only the core requirements toward both specializations. Minors are available in critical studies and visual literacy.

## Program Standards

A film and video studies specialization or minor can be selected by students using the normal major or minor declaration process and with assistance from a faculty advisor. Any student who has taken COM 201 and FVS 250 and passed with a combined B average or better and has a minimum CWU grade point average of 2.4 or higher may be admitted to this program. Students must maintain a 2.4 GPA or higher with a minimum grade of $C$ - in all courses counted toward fulfilling the Film and Video Studies major or minor requirements.

## Majors, Specializations, Minors, and Certificates

The Film and Video Studies program provides students the opportunity to pursue a course of study in either the critical study or the production and technical aspects of the moving image. The film and video studies program employs a scholarly, creative, and professional approach to the study of both film and television and seeks to help each student discover his or her talent as an independent critic, artist, and communicator. The program provides an education in the history and theory of film, television, and digital media art forms and basic learning experiences in production within the context of a liberal arts education.

The film and video studies specializations require a sequence of core courses. Students are strongly encouraged to complete the core, except FVS 489, prior to the beginning of their junior year. After completing the core, students will be required to choose a specialization in either critical studies which examines the history, theory, and aesthetics of both film and television (52 credits) or production ( 52 credits), which exposes students to the fundamentals of the production processes in film and video, including studio and field production, digital media, documentary, writing, directing, photography, sound recording, and editing. Students may choose to complete both specializations; however, they may count only the core requirements toward both specializations. Minors are available in critical studies and visual literacy.

The program encourages students to look at moving images from the vantage point of other disciplines. To this end, the film
and video studies program includes courses from a number of other departments and programs on campus, including anthropology, communication, English, foreign languages, philosophy, political science, religious studies, sociology, and theatre arts.

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Bachelor of Arts Film and Video Studies Major

Film and Video Studies Core Requirements
COM 201 - Media and Culture . . . . . . . . . . . . 4
COM 321 - Visual Communication . . . . . . . . . 4
COM 330 - Media Aesthetics . . . . . . . . . . . . . 5
ENG 344 - Film Theory and Criticism . . . . . . 5
FVS 250 - Introduction to Film and Video Studies
. 5
FVS 489 - Senior Colloquium .............. . 2
Total Film and Video Studies
Core Credits: $\mathbf{2 5}$

## Critical Studies Specialization

The critical studies specialization explores the history, theory, and criticism of film and television. Students examine cinema's role as a unique 20th-century art form and the contributions of moving image media as cultural practices of enduring social significance. In the critical studies specialization, they explore film and television texts in relation to the world these texts represent; not only the meanings of these texts but also the processes by which these meanings are constructed. Students will develop the skills to analyze the power and responsibility of American and international film and television and new media
technologies from formal, aesthetic, historical, social, and ideological perspectives.

## Required Courses

Film and Video Studies Core. . . . . . . . . . . . . 25
COM/ENG 353 - History of Narrative Film 4
COM/ENG 354 - History of Television .... 4
ENG 360 - World Cinema. . . . . . . . . . . . . . . . . 5
ENG 461 - Studies in Film and Culture . . . . . 5
ENG 462 - Studies in Film and / or
Television Genres . . . . . . . . . . . . . . . . . . . . . . 5
ENG 463 - Studies in the Film Auteur . . . . . . 5
Select two (2) International Cinema
courses.
. 8
AST 465 - Indian Cinema (4)
AST 466 - Asian Cinema (4)
CHIN 461 - Chinese Cinema (4)
FR 460 - French Cinema (4)
GERM 464 - German Cinema (4)
JAPN 462 - Japanese Cinema (4)
RUSS 463 - Russian Cinema (4)
SPAN 446 - Hispanic Cinema (4)

Elective Courses in Critical Studies
14
Courses credits taken above not used to satisfy a requirement may be used as elective credits.
Students may repeat the following
variable topic courses with different
topics: ENG 461, ENG 462, and
ENG 463.
COM/ENG 355 - History of Documentary (4)
COM 369 - Mass Media and Society (4)
COM 469 - Media and Cultural
Studies (4)
ENG/COM 367 - Narrative
Screenwriting (4)
ENG/COM 467 - Advanced Narrative
Screenwriting (4)
FVS 490 - Cooperative Education (1-12)
FVS 491 - Workshop (1-6)
FVS 492 - Practicum (2)
FVS 496 - Individual Study (1-6)
FVS 498 - Special Topics (1-6)
FVS 499 - Seminar Credits: (1-6)
PHIL 402 - Ethics and Film (5)
POSC 441 - Politics and Film (5)
RELS 402 - Religion and Film (5)
TH 166 - Theory of Play Production (3)
Total Credits: 75

## Production Specialization

The production specialization is designed to build specific skills in media production from a strong foundation of general knowledge in film and television. Students can choose from a wide range of courses that offer both introductory as well as more advanced study in all aspects of mediated storytelling, from writing and producing to directing, cinematography, and editing. The production specialization emphasizes exploration of the student's personal creative voice through hands-on productions. This process allows students to develop skills in all areas of the craft, exploring both the creative and technical aspects of film/video production.

All students in the production specialization begin by making short programs, then progress to more complex productions while learning the collaborative nature of film/video production through crew experiences. Students are encouraged to experiment with traditional narrative structures, documentary, multi-camera television production, and / or new media as the curriculum and their interests dictate. Student projects can range from traditional films to the most intensely personal experimental works.

To complete the learning experience and help students prepare for the job market, all students pursuing the production specialization are strongly encouraged to take advantage of internship opportunities and to compile a portfolio. FVS 489 - Senior Colloquium and FVS 490 - Cooperative Education are designed to facilitate this goal.

Those students wishing to continue on to film school may also want to complete an independent film or video production project. FVS 492 - Practicum is designed to fill this role.

## Required Courses

Film and Video Studies Core. . . . . . . . . . . . . 25
COM 322 - Introduction to Studio
Production
Production . . . . . . . . . . . . . . . . . . . . . . . . . . 4
COM 341 - Introduction to Field Production 4
COM 346 - Production Management for
Film and Video
.4
Select one of the following . . . . . . . . . . . . . . 4
ENG 263 - Introduction to Creative
Writing (4)
TH 330 - Playwriting (4)
Select one of the following $\qquad$
COM 357 -Scriptwriting for serial
Television (4)
ENG/COM 367 - Narrative
Screenwriting (4)
Select one of the following $\qquad$
COM 431 - Editing for Television and Film (4)
COM 432 - Directing Television and Film (4)
Select one of the following $\qquad$
COM 422 - Advanced Multi-camera Production (4)
COM 440 - Corporate Media Production (4)
COM 441 - Documentary Production (4)
Select one of the following . . . . . . . . . . . . .
COM 353/ENG - History of Narrative Film (4)
COM/ENG 354 - History of Television (4)
COM/ENG 355 - History of Documentary (4)
Select Six Credits from the following . . . . 6
COM 452 - Applied Video
Production (1-2)
FVS 490 - Cooperative Education (1-12)
FVS 492 - Practicum (2)
Elective Courses in Production . . . . . . . . . . 12
Course credits taken above not used to satisfy a requirement may be used as elective credits.
ANTH 351 - Visual Anthropology (4)
COM 315 - Studies in Communication:
Final Cut Pro (1)
COM 369 - Mass Media and Society (4)
COM 382 - History of American Journalism (4)
COM 460 - Communication Law (4)
COM 469 - Media and Cultural Studies (4)
ENG 461 - Studies in Film and Culture (5)
ENG 462 - Studies in Film and / or
Television Genres (5)
ENG 463 - Studies in the Film Auteur (5)
ENG/COM 467 - Advanced Narrative Screenwriting (4)
FVS 491 - Workshop (1-6)
FVS 496 - Individual Study (1-6)
FVS 498 - Special Topics (1-6)
FVS 499 - Seminar (1-6)
PHIL 402 - Ethics and Film (5)

TH 144 - Foundations of Acting (3)
TH 166 - Theory of Play Production (3)
TH 244 - Basic Acting I (3)
TH 268 - Lighting Technology (3)
TH 329 - Directing I (3)
TH 356 - Stage Sound (3)
TH 368 - Stage Lighting (3)
TH 430 - Script Writers Workshop (4)
TH 475 - Acting for Film and
Television (4)
Total Credits: 75

## Critical Studies Minor

Required Courses
COM 201 - Media and Culture . . . . . . . . . . . . 4
COM 321 - Visual Communication . . . . . . . . 4
COM 330 - Media Aesthetics . . . . . . . . . . . . . . 5
ENG 344 - Film Theory and Criticism . . . . . . 5
FVS 250 - Introduction to Film and Video Studies
. . 5
Select one of the following . . . . . . . . . . . . . 4
COM/ENG 353 - History of Narrative Film (4)
COM/ENG 354 - History of Television (4)

COM/ENG 355 - History of the Documentary (4)
Select one of the following . . . . . . . . . . . . . . 5
ENG 461 - Studies in Film and Culture (5)
ENG 462 - Studies in Film and / or
Television Genres (5)
ENG 463 - Studies in the Film Auteur (5)
Total Credits: 32

## Visual Literacy Minor

Required Courses
COM 201 - Media and Culture . . . . . . . . . . . . 4
COM 321 - Visual Communication ......... 4
COM 429 - Classroom Communication .... 5
ENG 424 - Teaching Reading and Viewing in High School
FVS 250 - Introduction to Film and Video Studies
Select of the following .................. 4
ANTH 351 - Visual Anthropology (4)
COM 369 - Mass Media and Society (4)
Select one of the following . . . . . . . . . . . . . .
COM 330 - Media Aesthetics (5)
ENG 344 - Film Theory and Criticism (5)
Total Credits: 31

## Film and Video Studies Courses

FVS 250. Introduction to Film and Video
Studies (5). Overview of film and video studies, including film viewing and analysis, motion picture language, film genres, and production aspects. Emphasis on the social context, cultural influences, and aesthetic qualities of film. Prerequisite: grade of C- or better in English 101.
FVS 489. Senior Colloquium (2). Students prepare end-of-major portfolios, which illustrates the competence in critical and
theoretical analysis of film and video production. Prerequisite: completion of (or concurrent enrollment in) all other major requirements and permission of program director. Grade will be S or U .
FVS 490. Cooperative Education (1-12). Practical experience in career fields in film and video studies. Individual contract field experience with business, industry, government, or nonprofit organization. Requires a student-learning plan, cooperating employer supervision, and faculty coordination. Prerequisite: major status, and approval of program director. May be repeated for a total of 12 credits. Grade will be S or U .
FVS 491. Workshop (1-6). Prerequisites: major status, and approval of program director.
FVS 492. Practicum (2). Prerequisites: major status, and approval of program director. Grade will be S or U .
FVS 496. Individual Study (1-6). Prerequisite: major status, and approval of program director.
FVS 498. Special Topics (1-6). May be repeated for credit under different topics.
FVS 499. Seminar (1-6). May be repeated for a maximum of 6 credits.

## FOREIGN

LANGUAGES
DEPARTMENT
Ellensburg
Language and Literature Bldg., room 102

## 509-963-1218

Fax: 509-963-1959
www.cwu.edu / ~forlang
See Web site for how these programs can be
used for educational and career purposes.

## Faculty and Staff

Chair
Joshua S. Nelson, PhD

## Professors

Rodney Bransdorfer, PhD , Spanish, applied linguistics
Natalie Lefkowitz, PhD, Spanish, applied linguistics
Stella Moreno, PhD, Spanish
Joshua S. Nelson, PhD, Japanese

## Associate Professors

Nathalie Kasselis-Smith, PhD, Spanish
Dieter Romboy, PhD, German

## Assistant Professors

Mei Chun, PhD, Chinese
Dinara Georgeoliani, PhD, Russian
Alejandro Lee, PhD, Spanish
Eric Mayer, PhD, Spanish

## Emeritus Faculty

Elbert E. Bilyeu, PhD, Spanish
Eva-Marie Carne, PhD, German

Kelton W. Knight, PhD , French
M. Nancy Lester, PhD, Spanish

Carlos E. Martin, PhD, Spanish
Christian Immo Schneider, PhD, German
Rosco N. Tolman, PhD, Spanish

## Lecturers

Steven L. Cook, BA, lecturer
Mariko Okada-Collins, MA, lecturer

## Staff

Lindsay Groce, secretary senior

## Department Information

The Department of Foreign Languages offers four BA degrees with specializations and minors in Chinese, French, German, Japanese, and Russian. Four BA degrees and two minors are available in Spanish. Teacher certification may also be completed in the target language(s). Course offerings provide (1) an introduction to the nature of the language as a facet of culture; (2) an acquaintance with the literature and culture of the aforementioned languages; and (3) proficiency in speaking, comprehension, and writing.

For non-majors or minors, the firstand second-year sequences are designed to provide basic proficiency in a foreign language. The department recommends that all majors include some organized study in a foreign country where their major language is spoken.

## Admission to Department Programs

1. Students planning to major or minor must meet with an advisor in the foreign languages department for details about admission requirements, and complete an application form.
2. Potential majors must have a grade point average of at least 3.0 in second-year language courses.
3. Potential minors must have a grade point average of at least 2.5 in second-year language courses.
4. The foreign languages department reserves the right to modify these requirements as the needs of the department change. Any changes would supersede policies previously published in this catalog.

## Departmental Standards

Students must earn a minimum grade of C- in each course allowed, toward fulfilling the major and / or minor.

## Departmental Honors

To earn honors in the Department of Foreign Languages, the student must be a major, at least a first quarter senior, and have a GPA of 3.4 in the foreign language in question. Aspirants must apply in writing to the department chair.

## Core Course Requirements

Only courses numbered 200 and above will count toward a major or minor. For students with sufficient preparation the 200 level sequence may be challenged for credit but not waived. Those pursuing a foreign language broad area major or foreign language teaching broad area major will be required to earn at least 10 credits in a study abroad program where the courses are taught in the target language. Students pursuing a Spanish Broad Area major or a Spanish Teaching Broad Area major will be required to earn 10 credits in a study abroad program where the courses are taught in Spanish. Students planning to study abroad must see their advisor prior to departure to ensure the applicability of the proposed course of study. All upper-division foreign language classes not listed as requirements are approved electives.

## Bachelor of Arts <br> Foreign Language Majors <br> with Specializations <br> Chinese <br> German <br> Russian <br> French <br> Japanese

## Bachelor of Arts <br> Foreign Language Major <br> This major requires a minor.

## Required Courses

251, 252, 253 - Second Year . . . . . . . . . . . . . . 15
*301 - Introduction to Literature ........... . 3
*310-Civilization and Culture . . . . . . . . . . . . 3
Language electives . . . . . . . . . . . . . . . . . . . . . 15
Literature/Culture electives . . . . . . . . . . . . . . 9
*May be taken at an approved Exchange Institution

Total Credits: 45

## Bachelor of Arts

## Foreign Language Broad Area Major

This major does not require a minor. At least 10 credits in the target language must be earned abroad, in a country where the target language is spoken.

## Required Courses

Completion of the Foreign Language
Major courses. . . . . . . . . . . . . . . . . . . . . . . . 45
Electives in language and/or literature ... 15
Total Credits: 60

## Bachelor of Arts Foreign Language: Teaching Major

Completion of this major and passing the West E and ACTFL oral and written proficiency exams for Chinese, French, German, Japanese, and Russian satisfies the endorsement for designated world language.

This major requires a minor and is open only to students pursuing a teaching certificate. Students taking this major are required to complete the Teacher Program requirements offered through the Department of Educational Foundations and Curriculum.

## Required Courses

251, 252, 253 - Second Year . . . . . . . . . . . . . . 15
*301 - Introduction to Literature ........... . . 3
*310 - Civilization and Culture . . . . . . . . . . . . 3
385 - Phonetics . . . . . . . . . . . . . . . . . . . . . . . . 3
OR Approved Substitute
Language electives . . . . . . . . . . . . . . . . . . . . 12
Literature/Culture electives . . . . . . . . . . . . . . 9
FNLA 481 - Methods and Materials for
Language Teaching ...................... . . 4
FNLA 482 - Second and Foreign Language
Acquisition
. .4
OR
FNLA 483 - Sociolinguistics (4)
OR
ANTH 483 - Sociolinguistics (4)
*May be taken at an approved Exchange Institution

Total Credits: 53

## Bachelor of Arts <br> Foreign Language: Teaching Broad Area Major

Completion of this major and passing the West E and ACTFL oral and written proficiency exams for Chinese, French, German, Japanese, and Russian satisfies the endorsement for designated world language.

This major does not require a minor and is open to students pursuing a teaching certificate. At least 10 credits in the target language must be earned abroad, in a country where the target language is spoken. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

## Required Courses

Completion of the Foreign Language:
Teaching Major courses . . . . . . . . . . . . . . 53
Electives in language and / or literature . . . 7

## Total Credits: 60

## Bachelor of Arts <br> Spanish Major

This major requires a minor.

## Required Courses

SPAN 251, 252, 253 - Second-year
Spanish

# SPAN 301 - Introduction to Spanish and Latin American Literature .4 <br> SPAN 310 - Hispanic Civilizations and Cultures <br> Spanish Composition and Grammar I OR <br> SPAN 345 - Spanish for Spanish Speakers I (4) <br> Spanish Language electives . 8 <br> Spanish Literature/Culture electives ..... 12 

Total Credits: 47

## Bachelor of Arts Spanish Broad Area Major

This major does not require a minor. At least 10 credits in Spanish must be earned abroad, in a country where Spanish is spoken.

## Required Courses

Completion of Spanish Major courses .... 47
Approved Electives. . . . . . . . . . . . . . . . . . . . . 16
Total Credits: 63

## Bachelor of Arts <br> Spanish Teaching Major

Completion of this major and passing the West E and ACTFL oral and written proficiency exam for Spanish satisfies the endorsement for designated world language.

This major requires a minor and is open only to students pursuing a teaching certificate. Students taking this major are required to complete the Professional Education Program requirements offered through the education department. Of the 16 elective credits, students must complete at least 4 approved elective credits in Spanish language courses and at least 8 approved elective credits in Spanish literature or culture courses.

## Required Courses

## SPAN 251, 252, 253 - Second-year

Spanish15SPAN 301 - Introduction to Spanish and
Latin American Literature ..... 4
SPAN 310 - Hispanic Civilizations andCultures4
SPAN 341 - Spanish Composition andGrammar I4
OR
SPAN 345 - Spanish for Spanish
Speakers I (4)
SPAN 385 - Spanish Phonetics ............. . . 4
FNLA 481 - Methods and Materials for
Language Teaching4
FNLA 482 - Second- and Foreign-languageAcquisition4

OR
FNLA 483 - Sociolinguistics (4)
OR
ANTH 483 - Sociolinguistics (4)
Approved Electives.

## Bachelor of Arts <br> Spanish Teaching Broad Area Major

Completion of this major and passing the West E and ACTFL oral and written proficiency exam for Spanish satisfies the endorsement for designated world language.

This major does not require a minor and is open only to students pursuing a teaching certificate. At least 10 credits in Spanish must be earned abroad, in a country where Spanish is spoken. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of .

## Required Courses

Completion of the Spanish Teaching
Major courses.55

Approved Electives . . . . . . . . . . . . . . . . . . . . 12
Total Credits: 67

## Foreign Language Minors

Chinese
German
Russian
French
Japanese
Courses must be numbered 200 or above.
Required Courses
251, 252, 253 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

343 or 345 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7
Total Credits: 27

## Spanish Minor

Courses must be numbered 200 or above.

## Required Courses

SPAN 251, 252, 253 - Second-year Spanish . 15
SPAN 341 - Spanish Composition and
$\qquad$
OR
SPAN 345 - Spanish for Spanish
Speakers I (4)
Approved Electives . . . . . . . . . . . . . . . . . . . . 8
Total Credits: 27

## American Sign Language Courses

ASL 151, 152, 153. American Sign Language $(5,5,5)$. Conversational approach with intensive visual / manual drill. Firm foundation in basic signs and structural principles of the language. Students may not receive credit for both ASL 151,152, 153, and EDSE 427, 428, 429. Courses must be taken in sequence.
ASL 251, 252, 253. Second-year American Sign Language ( $5,5,5$ ). How signers construct meaning and messages in ASL, grammatical variation, and discourse strategies are covered with special focus on increasing non-manual behavior. Courses must be taken in sequence. Prerequisite:
successful completion of ASL 153 and / or equivalent course, demonstration of ASL 153 equivalent skills, or permission of the instructor.

## Foreign Language Courses

FNLA 111. Foreign Languages-Special Instruction (3 or 5). A foreign language not usually taught by the department. Offerings vary according to student demand, availability of staff, or of instructional programs. FNLA 111 or the sequence may be repeated for credit in different languages. Interested students should contact the Department of Foreign Languages for available offerings.
FNLA 112. Foreign Languages-Special Instruction (3 or 5). A foreign language not usually taught by the department. Offerings vary according to student demand, availability of staff, or of instructional programs. FNLA 112 or the sequence may be repeated for credit in different languages. Interested students should contact the Department of Foreign Languages for available offerings.
FNLA 113. Foreign Languages-Special Instruction (3 or 5). A foreign language not usually taught by the department. Offerings vary according to student demand, availability of staff, or of instructional programs. FNLA 113 or the sequence may be repeated for credit in different languages. Interested students should contact the Department of Foreign Languages for available offerings.
FNLA 298. Special Topics (1-6).
FNLA 398. Special Topics (1-6).
FNLA 401. Introduction to Romance Linguistics (3). Analysis of the phonology, morphology, and syntax of the romance languages. Prerequisite: two years of a romance language or equivalent. Credits to be counted toward either French or Spanish major or minor.
FNLA 481. Methods and Materials for Language Teaching (4). Emphasizes the practical concerns of second- and foreign-language instruction. Explores as a group the theory underlying approaches incorporated into personalized teaching styles. Prerequisite: at least two 300-level courses or equivalent in a foreign language.
FNLA 482. Second- and Foreign-language Acquisition (4). This course explores second and foreign language acquisition/ learning from an applied linguistics perspective. Prerequisite: FNLA 481 or departmental approval. The focus of this course will be on the learner.
FNLA 483. Sociolinguistics (4). Concepts and methods of sociolinguistic analysis in first and second languages. Will examine the relationship between language and discrimination. Prerequisite: ANTH/ENG 180 or 480, ANTH 381, or FNLA 481, or departmental approval. FNLA 483 and ANTH 483 are equivalent courses. Students may not receive credit for both.

FNLA 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
FNLA 491. Workshop (1-6). Prerequisite: departmental permission. May be repeated for credit.
FNLA 496. Individual Study (1-6).
FNLA 498. Special Topics (1-6).

## Chinese Courses

CHIN 141, 142, 143. Chinese for Western Language Speakers ( $5,5,5$ ). This course is designed for students whose native tongues are western languages and who have not previously been exposed to the Chinese character writing system.
CHIN 151, 152, 153. First-year Chinese $(5,5,5)$. Courses must be taken in sequence. Conversational approach with intensive oral-aural drill. Firm foundation in basic structural principles of the language.
CHIN 251, 252, 253. Second-year Chinese $(5,5,5)$. Graduated readings in modern Chinese writings with discussion conducted in Chinese. Courses must be taken in sequence. Prerequisite: CHIN 153 or equivalent.
CHIN 298. Special Topics (1-6).
CHIN 301. Chinese Literature in Translation (4). A survey of Chinese literature in translation. Prerequisite: grade of C- or better in English 101. CHIN 301 and AST 301 are equivalent courses. Students may not receive credit for both courses.
CHIN 341. Intermediate Composition and Grammar (3). Prerequisite: CHIN 253 or equivalent. Should be taken in sequence.
CHIN 343. Intermediate Conversation (2).
Prerequisite: CHIN 253 or equivalent. Should be taken in sequence.
CHIN 344. Intermediate Conversation II (2). Prerequisite: CHIN 253, or equivalent. Should be taken in sequence.
CHIN 398. Special Topics (1-6).
CHIN 461. Chinese Cinema (4). An examination of the history, aesthetic achievements, major directors, and themes, and cultural explorations of Chinese cinema. Includes films from mainland China, Taiwan, and Hong Kong. Prerequisite: FVS 250 or permission of the instructor.
CHIN 496. Individual Study (1-6).
Prerequisite: permission of instructor.
CHIN 498. Special Topics (1-6).

## French Courses

FR 151, 152, 153. First-year French (5,5,5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.

FR 251, 252, 253. Second-year French (5,5,5). Thorough review of French grammar and graduated readings in modern French prose with discussions conducted in French. Courses must be taken in sequence. Prerequisite: FR 153 or equivalent.
FR 298. Special Topics (1-6).
FR 301. Introduction to French Literature (3). This course is designed as a transition course to prepare students for the advanced literature courses. Appreciation of literature and methods of analysis will be taught on a basic level through the careful examination of specific texts. Prerequisite: FR 253 or equivalent.
FR 310. French Civilization and Culture (3). Major aspects of French culture, philosophy, and way of life will be emphasized.
Prerequisite: FR 253 or equivalent.
FR 341. Intermediate Composition and Grammar (3). Prerequisite: FR 253 or equivalent. Should be taken in sequence with FR 441.
FR 342. Intermediate Composition and Grammar (3). Prerequisite: FR 253 or equivalent. Should be taken in sequence with FR 441.
FR 343. Intermediate Conversation (2). Prerequisite for FR 343 is FR 253 or equivalent.
FR 344. Intermediate Conversation (2). Prerequisite for FR 344 is FR 343 or equivalent, or departmental approval.
FR 398. Special Topics (1-6).
FR 441. Advanced Composition and Grammar (3). Prerequisite: FR 341 and 342, or departmental approval.
FR 442. Translation and Interpretation
(2). Prerequisite: FR 342 or equivalent, or departmental approval.
FR 450. Contemporary French Novel (3). From Proust to Camus. Prerequisite: at least two 300-level courses, one of which must be a literature course, or departmental approval.
FR 455. French Poetry Through the Ages (3).
Selected masterpieces from the Middle Ages to the present. Prerequisite: at least two 300 -level courses, one of which must be a literature course, or departmental approval.
FR 460. French Cinema (4). Students will view and analyze French films as a backdrop to the discussion of the history of French cinema.
FR 491. Workshop (1-6). Prerequisite: departmental permission. May be repeated for credit.
FR 496. Individual Study (1-6). Prerequisite: permission of instructor.
FR 498. Special Topics (1-6).

## German Courses

GERM 151, 152, 153. First-year German $(5,5,5)$. Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.

GERM 251, 252, 253. Second-year German
$(5,5,5)$. Graduated readings in modern German prose with discussion conducted in German. Thorough review of German grammar. Courses must be taken in sequence. Prerequisite: GERM 153 or equivalent.
GERM 298. Special Topics (1-6).
GERM 301. Introduction to German
Literature (3). Selected pieces of German literature characteristic of the Middle Ages to the present. Prerequisite: GERM, 253 or equivalent.
GERM 310. German Civilization and Culture (3). The background, development, and especially the present-day situation of the German-speaking areas of the world.
Prerequisite: GERM 253 or equivalent.
GERM 341. Intermediate Composition and Grammar (3). Prerequisite: GERM 253 or equivalent.
GERM 342. Intermediate Composition and Grammar (3). Prerequisite: GERM 253 or equivalent.
GERM 343. Intermediate Conversation (2). Prerequisite for GERM 343 is GERM 253 or equivalent.
GERM 344. Intermediate Conversation (2). Prerequisite for GERM 344 is GERM 343 or equivalent, or departmental approval.
GERM 385. German Phonetics (3). Designed to show how German is pronounced, and how to attain accuracy, which approximates native-like pronunciation as much as possible. Provides an opportunity to improve pronunciation. Prerequisite: German 341 or departmental approval.
GERM 398. Special Topics (1-6).
GERM 442. Translation and Interpretation (2). Prerequisite: GERM 342 or equivalent, or departmental approval.
GERM 454. The German Narrative (3). The German short story, novelle, and novel. Prerequisite: at least two 300-level courses, one of which must be a literature course, or departmental approval.
GERM 456. German Drama (3). Prerequisite: at least two 300-level courses, one of which must be a literature course, or departmental approval.
GERM 464. German Cinema (4). An examination of the history, aesthetic achievements, major directors and themes, and cultural explorations of German cinema.
GERM 491. Workshop (1-6). Prerequisite: departmental permission. May be repeated for credit.
GERM 496. Individual Study (1-6).
Prerequisite: permission of instructor.
GERM 498. Special Topics (1-6).

## Japanese Courses

JAPN 151, 152, 153. First-year Japanese $(5,5,5)$. Conversational approach with intensive oral-aural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence.
JAPN 251, 252, 253. Second-year Japanese
$(5,5,5)$. Graduated readings in modern

Japanese writings with discussion conducted in Japanese. Courses must be taken in sequence. Prerequisite: JAPN 153 or equivalent. Review of Japanese grammar.
JAPN 298. Special Topics (1-6).
JAPN 301. Japanese Literature in Translation
(4). A survey of Japanese literature in translation. JAPN 301 and AST 347 are equivalent courses. Prerequisite: C- or better in English 101. Students may not receive credit for both courses.
JAPN 341, 342. Intermediate Composition and Grammar (3,3). Prerequisite: JAPN 253 or equivalent. JAPN 341 and 441.
JAPN 343. Intermediate Conversation (2). Prerequisite for JAPN 344 is JAPN 343 or equivalent, or departmental approval.
JAPN 344. Intermediate Conversation (2). Prerequisite for JAPN 343 is JAPN 253 or equivalent.
JAPN 398. Special Topics (1-6).
JAPN 441. Advanced Composition and Grammar (3). Prerequisite: JAPN 341 and 342, or departmental approval.
JAPN 442. Translation and Interpretation (4). Translation into English of Japanese textual material drawn from a wide range of sources. Prerequisite: JAPN 342.
JAPN 462. Japanese Cinema (4). An examination of the history, aesthetic achievements, major directors and themes, and cultural explorations of Japanese cinema. Includes close look at Japan's leading auteur directors.
JAPN 496. Individual Study (1-6).
Prerequisite: permission of instructor.
JAPN 498. Special Topics (1-6).

## Latin Courses

LAT 151. Latin (5). Translation, declension, and conjugation approach using oral-aural drill. Firm foundation in the basic structural principles.
LAT 152. Latin (5). Translations, declension, and conjugation approach using oral-aural drill. Firm foundation in the basic principles of the language continuing from Latin 151. Prerequisite: LAT 151 or the equivalent.
LAT 153. Latin (5). Translations, declension, and conjugation approach using oral-aural drill. Firm foundation in the basic principles of the language continuing from Latin 152. Prerequisite: LAT 152 or the equivalent.

## Russian Courses

RUSS 151, 152, 153. First-year Russian (5,5,5). Conversational approach with intensive oral-aural drill. Firm foundation in basic structural principles of the language. Courses must be taken in sequence.
RUSS 251, 252, 253. Second-year Russian $(5,5,5)$. Thorough review of Russian grammar and graduated readings in Russian prose and poetry with discussions conducted in Russian. Prerequisite: RUSS 153 or equivalent. Courses must be taken in sequence.
RUSS 298. Special Topics (1-6).

RUSS 310. Russian Civilization and Culture
(3). Literature, art, music, history, and philosophy. Lectures and discussions conducted in Russian. Prerequisite: RUSS 253 or permission.
RUSS 341. Intermediate Composition and Grammar (3). Prerequisite: RUSS 253 or equivalent. Should be taken in sequence with RUSS 441.
RUSS 342. Intermediate Composition and Grammar (3). Prerequisite: RUSS 253 or equivalent. Should be taken in sequence with RUSS 441.
RUSS 343. Intermediate Conversation (2).
RUSS 398. Special Topics (1-6).
RUSS 441. Advanced Composition and Grammar (3). Prerequisite: RUSS 341 and 342 or departmental approval.
RUSS 462. Russian Cinema (4). Explores the cultural and historical context of Soviet and post -Soviet film, including exchanges between art and politics, expressions of national identity, depictions of ethnicity, gender and class, and the development of cinematic institutions.
RUSS 496. Individual Study (1-6).
Prerequisite: permission of instructor. RUSS 498. Special Topics (1-6).

## Spanish Courses

SPAN 151, 152, 153. First-year Spanish (5,5,5). Develop elementary skills in listening, speaking, reading, and writing. For students with the equivalent of fewer than two years high school Spanish. Courses must be taken in sequence.
SPAN 181. Intensive Review of First-year Spanish (5). Intensive review of first-year Spanish for students with the equivalent of two years of high school Spanish who wish to continue with second-year Spanish. Prerequisite: minimum of two years of high school Spanish or equivalent.
SPAN 251, 252, 253. Second-year Spanish $(5,5,5)$. Develop intermediate skills in listening, speaking, reading, and writing. Courses must be taken in sequence. Prerequisite: SPAN 153 or SPAN 181 or equivalent.
SPAN 298. Special Topics (1-6).
SPAN 301. Introduction to Spanish and Latin American Literature (4). This transitional course will prepare students for advanced literature courses by introducing the tools for analysis and critique of literary works in the various genres. Lectures, readings, and discussions will be conducted in Spanish. Prerequisite: SPAN 341, or SPAN 345, or equivalent.
SPAN 310. Hispanic Civilizations and Cultures (4). This course focuses on the study of major historical and cultural events that have shaped Spanishspeaking societies. Lectures, readings, and discussions conducted in Spanish. Prerequisite: SPAN 341, or SPAN 345, or equivalent.

SPAN 341. Spanish Composition and
Grammar I (4). Development of writing skills through the practice of grammar, vocabulary, and rhetorical devices. Prerequisite: SPAN 253 or equivalent. Students may not receive credit for both SPAN 341 and SPAN 345.
SPAN 342. Spanish Composition and Grammar II (4). Further development of writing skills through the practice of grammar, vocabulary, and rhetorical devices. Prerequisite: SPAN 341 or equivalent. Students may not receive credit for both SPAN 342 and SPAN 346.
SPAN 343. Spanish Conversation (4). Development of speaking and listening skills through the practice of grammar, vocabulary, and communicative strategies. Prerequisite: SPAN 253 or equivalent.
SPAN 345. Spanish for Spanish Speakers I (4). Grammar, composition, and conversation for academic purposes for heritage speakers of Spanish. Prerequisite: SPAN 253 or equivalent or instructor approval. Students may not receive credit for both SPAN 341 and SPAN 345.
SPAN 346. Spanish for Spanish Speakers II (4). Further development of grammar, composition, and conversation for academic purposes for heritage speakers of Spanish. Prerequisite: SPAN 345, or equivalent, or instructor approval. Students may not receive credit for both SPAN 342 and SPAN 346.

SPAN 385. Spanish Phonetics (4). Analysis of the Spanish sound system. Students will learn to describe, recognize, and produce the sounds of standard Latin American Spanish. Other dialects will also be examined. Prerequisite: SPAN 253 or equivalent.
SPAN 398. Special Topics (1-6).
SPAN 432. Advanced Spanish Composition and Grammar (4). Advanced grammar, composition, and stylistics through textual analysis and essay writing. Prerequisite: SPAN 342 or SPAN 346 or equivalent.
SPAN 442. Spanish Translation and Interpretation (4). This course illustrates the specific semantic and syntactic aspects of Spanish in translation by examining a variety of texts and materials. Lectures, readings, and discussions in both English and Spanish. Prerequisite: SPAN 342 or SPAN 346 or equivalent.
SPAN 445. Spanish Medieval Literature
(4). This course analyzes the most representative works, literary genres, and movements of the Spanish Middle Ages. Prerequisite: SPAN 301 or departmental approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 446. Hispanic Cinema (4). A study of major films from Spain and Latin America in their various national contexts.
SPAN 449. Spanish Golden Age Literature (4). Novel, theatre, and poetry in 16thand 17th-century Spain, including works by Cervantes, Lope de Vega, Calderon, or Quevedo. Prerequisite: SPAN 301 or departmental approval.

SPAN 456. The Spanish and Latin Short Story (4). Study of the short story genre represented in works by major modern and contemporary Spanish and Latin American writers. Prerequisite: SPAN 301 or department approval. Lectures, readings, and, discussions conducted in Spanish.
SPAN 457. Latin American Theater (4). Study of dramatic and performance theories and of theatrical pieces from Latin American playwrights. Prerequisite: SPAN 301 or department approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 458. Latin American Fiction (4). Study of the fundamental writing strategies in novels and short stories by major contemporary Latin American writers. Prerequisite: SPAN 301 or department approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 459. Latin American Poetry (4). Study of literary conventions of poetry and the major contemporary Latin American poets. Prerequisite: SPAN 301 or department approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 465. Spanish Theater (4). Study of dramatic and performance theories and of theatrical pieces from Spanish playwrights. Prerequisite: SPAN 301 or department approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 466. Spanish Poetry (4). Study of poetic theories and of main developments in the poetry of Spain. Prerequisite: SPAN 301 or department approval.


SPAN 467. Spanish and Latin American Literature and Film (4). Literary criticism of major contemporary Spanish and Latin American fiction and its reflection in film. Prerequisite: SPAN 301 or department approval. Lectures, readings, and discussions conducted in Spanish.
SPAN 491. Workshop (1-6). Prerequisite: department permission. May be repeated for credit.
SPAN 496. Individual Study (1-6).
Prerequisite: permission of instructor. SPAN 498. Special Topics (1-6).

## Foreign Studies Courses

Courses with FNST prefixes, intermediate, and advanced language (111-113, 211-213, 311-312, 411-414), culture and civilization (310) and literature (413), are not offered on campus and are available only in connection with study abroad programs and must be taught in the foreign language. For further information contact the office of International Studies and Programs or the Foreign Languages Department.
FNST 111, 112, 113. First-year Foreign Language (1-6). Offered only in studyabroad programs. Courses must be taken in sequence, although a student may enroll in more than one at a time in the case of intensive courses. May be repeated for credit. Interested students should contact the Department of Foreign Languages or the Office of International Studies and Programs.
FNST 211, 212, 213. Second-year Foreign Language (1-6). Offered only in studyabroad programs. May be repeated for credit.
FNST 310. Culture and Civilization (1-6). Major aspects of the culture, philosophy, and way of life of the host country will be emphasized. Offered only in study-abroad programs. May be repeated for credit.
FNST 311, 312, 313. Third-year Foreign Language (1-6). A study of grammar, conversation, and/or composition at the third-year level. Offered only in studyabroad programs. May be repeated for credit.
FNST 320. Literature (1-6). An in-depth study of one or more authors, periods, or genres of the literature of the host country. Prerequisite: second-year foreign language or equivalent. Offered only in study-abroad programs. May be repeated for credit.
FNST 411, 412, 414. Fourth-year Foreign Language (1-6). A study of grammar, conversation, and/or composition at the fourth-year level. Offered only in studyabroad programs. May be repeated for credit.
FNST 420. Literature (1-6). An in-depth study of one or more authors, periods, or genres of the literature of the host country. Offered only in study-abroad programs. May be repeated for credit.

## HISTORY DEPARTMENT

Ellensburg
Language and Literature Bldg., room 100
509-963-1655
Fax: 509-963-1654
www.cwu.edu / ~history
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff <br> Chair

Karen J. Blair, PhD

## Professors

Karen J. Blair, PhD, 20th-century U.S., women's history
Roxanne Easley, PhD, Russia, Eastern Europe
Marji Morgan, PhD, 19th-century British social and cultural history

## Associate Professors

James Cook, PhD, East Asia
Daniel Herman, PhD, U.S. pre-1877
Jason Knirck, PhD, Britain/British Empire,
Western Europe
Stephen Moore, PhD, Pacific Northwest, foreign relations, social studies education

## Lecturers

Michael Duerre, MA
Kenneth Munsell, MA
Jalynn Padilla, PhD

## Emeritus Professors

Beverly Heckart, PhD, Germany, Europe
Kent Richards, PhD, American West, Pacific Northwest

Staff
K. Angie Hill, secretary

## Department Information

The history faculty offers courses leading to bachelor of arts and master of arts.

Students who declare a major in history must register with the department.

## History Honors Program

Qualified students are urged to enter the Department of History's Honors program. To qualify for the program, students must complete 25 credits in their major and have an overall GPA of 3.0 and 3.25 in history. Honors students will complete the following requirements:

1. An elective course in addition to those required for their major in an area of concentration (United States, Europe, or non-western)
2. A year of coursework in one departmentally approved foreign language at an accredited college or university. If it
is the same language as that taken in high school, the student must complete the coursework at the 200 level
3. An honors research paper ( 25 page minimum) completed during HIST 481. A faculty committee will judge whether the paper meets departmental standards for honors

Students who complete the above requirements will graduate with departmental honors. Please contact the department chair for more information.

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

## Bachelor of Arts <br> History Major (Large Plan)

Required Courses
Select from the following. . . . . . . . . . . . . 20
HIST $101^{*}$ - World Civilization to 1500 (5)
HIST 102* - World Civilization: 15001815 (5)
HIST 103* - World Civilization Since 1815 (5)
HIST 143 - United States History to 1865 (5)
HIST 144 - United States History Since 1865 (5)
HIST 302 - Introduction to History. . . . . . . . . 5
HIST 481 - Understanding History. . . . . . . . . 4
Upper-division United States history . . . . . . 5
Upper-division European history .......... 5
Upper-division African, Asian, Middle
Eastern, or Latin American history . . . . . 10
HIST 401, 402, or 403 - History Readings
Seminar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Upper-division history electives. . . . . . . . . . 20
Total Credits: 74

* Western Civilization may be substituted.


## Bachelor of Arts <br> History Major (Small Plan)

(Note: It is recommended that students who plan to enter graduate school should complete two years of a foreign language at the college level.)

## Required Courses

*Select from the following 20
HIST 101 - World Civilization to 1500 (5)
HIST 102* - World Civilization: 15001815 (5)
HIST 103* - World Civilization Since 1815 (5)

HIST 143 - United States History to 1865 (5)
HIST 144 - United States History Since 1865 (5)
HIST 302 - Introduction to History. . . . . . . . . 5
HIST 481 - Understanding History. . . . . . . . . 4
Upper-division United States history . . . . . . 5
Upper-division European history .......... . 5
Upper-division African, Asian, Middle
Eastern, or Latin American history . . . . . 10
HIST 401, 402, or 403 - History Readings
Seminar.
. 5
Upper-division history electives. . . . . . . . . . . 5
Total Credits: 59**

* Western Civilization may be substituted.
**Students with fewer than 60 credits must
have a minor or another major in order to graduate.


## Bachelor of Arts

## History/Social Studies Teaching Major

This major satisfies the endorsements for history and social studies. This major is designed for students in the secondary teacher training program. Students taking this major are required to complete the Professional Education Program requirements offered through the education department.

## Required Courses

HIST 301 - Pacific Northwest History . . . . . . 5
HIST 302 - Introduction to History ......... 5
**HIST 421 - Methods and Materials in the
Social Studies, Secondary . . . . . . . . . . . . . . 5
HIST 481 - Understanding History. . . . . . . . . 4
POSC 210 - American Politics . . . . . . . . . . . . . . 5
*Select from the following. . . . . . . . . . . . . . 20
HIST 101 - World Civilization to 1500 (5)
HIST 102* - World Civilization: 15001815 (5)
HIST 103* - World Civilization Since 1815 (5)
HIST 143 - United States History to 1865 (5)
HIST 144 - United States History Since 1865 (5)
Select from the following
Upper-division U.S. History (5)
Upper-division European History (5)
Upper-division African, Asian, Middle Eastern, or Latin American History (5)
Select from the following.
. 5
ECON 101 - Economic Issues (5)
ECON 102 - World Economic Issues (5)
ECON 201 - Principles of Economics Micro (5)
ECON 202 - Principles of Economics Macro (5)
Select from the following. . . . . . . . . . . . . . . . 5
ANTH 107 - General Anthropology (5)
SOC 101 - Social Problems (5)
SOC 107 - Principles of Sociology (5)
Select from the following. $\qquad$
GEOG 101 - World Regional
Geography (5)

GEOG 107 - Introduction to Physical Geography (5)
GEOG 304 - Economic Geography (5)
GEOG 308 - Cultural Geography (5)
Select from the following
of Nort.
GEOG 352 - Geography of North
America (5)
GEOG 355 - Geography of the Pacific
Northwest (4)
GEOG 371 - Geography of Europe (5)
GEOG 415 - Geography of Oceania (3)
GEOG 470 - Geography of Latin
America (4)
GEOG 474 - Geography of China (4)
GEOG 475 - Geography of Asia (5)
Total Credits: 77-79
*Western Civilization may be substituted.
**Prior completion of EDCS 311
recommended. Students must be admitted to the Teacher Preparation program prior to enrolling in this course.

## History Minor

## Required Courses

Select from the following
HIST 101,102,103 - World Civilization* HIST 143,144 - United States History
Upper-division History electives . . . . . . . . . 20
Total Credits: 30
*Western Civilization may be substituted.

## History Courses

HIST 101. World Civilization to 1500 (5). Origins and development of the major world civilizations to the 15th century. A comparative study of their political, social, and economic institutions, and their religious and intellectual backgrounds.
HIST 102. World Civilization: 1500-1815 (5). A comparative survey of political, social, economic, and cultural developments. For general education (breadth) credit, it is preferred that a student be enrolled in or have completed ENG 101. Meets the writing requirement.
HIST 103. World Civilization Since 1815 (5). A comparative survey of political, social, economic, and cultural developments. For general education (breadth) credit, it is preferred that a student be enrolled in or have completed ENG 101. Meets the writing requirement.
HIST 143. United States History to 1865 (5). The Colonial, Revolutionary, and National periods.
HIST 144. United States History Since 1865 (5). Reconstruction, Industrial America, and 20th-century urban America. For general education (breadth) credit, it is preferred that a student be enrolled in or have completed ENG 101. Meets the writing requirement.
HIST 298. Special Topics (1-6).
HIST 301. Pacific Northwest History (5).
Exploration and settlement; subsequent
political, economic, and social history with particular emphasis on Washington.
HIST 302. Introduction to History (5).
Exercises in historical research, critical analysis, and interpretation. Students must earn a minimum grade of $C$ as a major requirement. Sophomore and junior history and social science majors only.
HIST 313. History of Rome 500 B.C. to 500 A. D. (5). Beginning, city-state, republican period; world empire; decline.
HIST 314. Military History of the United States (5). A comprehensive and systematic survey and analysis of the American military experience from Colonial times through the Vietnam War. HIST 314 and MSL 314 are equivalent courses. Students may not receive credit for both.
HIST 315. Muslim Middle East (3-5). The origins and spread of Islamic civilization and its interaction with Graeco-Roman, Persian, and Indian civilizations. Crusades and the rise and fall of the Ottoman Empire.
HIST 316. Modern Middle East: 1914 to
the Present (3-5). The Arab revolt, the British-French mandates, nationalism, modernization, independence movements, Arab-Israeli struggle, Palestinians, and oil politics.
HIST 322. World Prehistory (4). Old- and New-world prehistory from late Pliocene to the early historic period, including the ecology and development of huntinggathering, agriculture, and state-level societies. HIST 322 and ANTH 322 are equivalent courses. Students may not receive credit for both.
HIST 325. Renaissance and Reformation (5). Survey of European political, social, cultural, and economic revolutions from the 14th to 16th centuries, including dissolution, humanism, overseas exploration, Protestantism, and popular culture.
HIST 328. Modern Latin America (5). Analyzes the history of Latin America in the past two centuries, from the Wars of Independence to the present day.
HIST 329. The Tropics and the Modern World (5). Analyzes the history of the modern world through the history of tropical commodities.
HIST 330. Africa to 1800 (5). This course is designed to explore Africa's earliest civilizations; internal processes of change; external influences; state formation; complex societies; connections to the world economy.
HIST 331. Colonial Africa (3-5). Africa on the eve of colonial conquest; causes of imperialism; colonial rule and African reactions and initiatives; independence, and colonial legacy.
HIST 332. History of the Black Diaspora (5). This course focuses on the black diaspora. It looks at the movement and impact of black people from Africa to other parts of the world. It examines their contribution to world civilizations and identities.

HIST 334. History of African Women (5). This course examines the history of women in Africa, from pre-colonial times to the present. Topics covered include political and social organizations, gender and family roles; rituals such as initiation; marriage; economic activities such as the agriculture market, etc.
HIST 339. Colonial British America (5). Social, cultural, political, and economic life in the British colonies of North America to 1763.

HIST 341. The United States: Early National Period 1789-1844 (3-5). Explores the cultural shifts and historical ironies that transformed the U.S. between the Revolution and the Civil War, with special attention to the expansion of democracy, empire, industry, slavery, and anti-slavery. Also examines shifting constellations of class and gender.
HIST 342. African American History to 1865 (5). This course is designed to provide you with an introduction to the major themes and events in African American history from its African origins to the end of the civil war.
HIST 343. African American History since 1865 (5). This course explores United States history from the late 19th century to the present day, focusing on the experiences of African Americans.
HIST 346. Women in American History (5). A survey of the role of women, their treatment and response in American society from colonial times to the present.
HIST 348. Economic History of the United States (5). Economic factors in the development of the American nation from the European background to the present. HIST 348 and ECON 348 are equivalent courses. Students may not receive credit for both.
HIST 352. The History of the American Family (3). American family patterns from early settlement to the present; demography, gender roles, courtship, marriage, child-raising, aging, ethnicity, and alternative life styles.
HIST 370. Medieval European History (5). Survey of Western European history from late antiquity to the 16th century; political, economic, social, and religious thought and institutions.
HIST 377. Early Modern Europe, 1600-1789 (5). A survey of the major trends and events in European history during the two centuries leading up to the French Revolution. Topics covered include the Glorious Revolution, the Enlightenment, and the rise of absolutism.
HIST 380. Modern East Asia (5). A survey of the modern histories of China, Japan, and Korea from 1600 to the present. Imperialism, nationalism, and the rise of communism are covered.
HIST 381. History of Modern Southeast Asia: Colonial Era to the Present (5). This is a survey course in the political and cultural history of modern Southeast Asia. It will examine European colonialism,
nationalism, decolonization, and post WWII configuration.
HIST 383. East Asian Civilization (5). A general survey of the development of civilization in China, Japan, and Korea to about 1600 .
HIST 386. The Latin American Colonies (5). Analyzes the history of Latin America and the Caribbean from pre-Columbian times to the Wars of Independence.
HIST 395. Research in Local History (1-6). Comparative local history with emphasis on research techniques and the utilization of sources.
HIST 398. Special Topics (1-6).
HIST 401. Readings in U.S. History (5).
Readings seminar of United States history. May be repeated for up to 15 credits.
HIST 402. Reading in European History (5). Readings seminar on European history.
May be repeated for up to 15 credits.
HIST 403. Readings in African, Asian,
Middle Eastern, Latin American History
(5). Readings seminar on African, Asian,

Middle Eastern, or Latin American history.
May be repeated for up to 15 credits.
HIST 421. Methods and Materials in the Social Studies, Secondary (5). Prior completion of EDCS 311 recommended. Students must be admitted to the Teacher Preparation Program prior to enrolling in this course.
HIST 422. British Isles to 1763 (5). The British Isles from Roman times to the conclusion of the Seven Years War. Course will cover the rise of the English monarchy, the Renaissance and Reformation in England, and the beginnings of the British Empire. HIST 422 and HIST 522 are cross-listed courses. Students may not receive credit for both.
HIST 423. The Irish Revolution (5). History and historiography of the Irish revolution. Topics include the constitutional and revolutionary antecedents, the course of the revolution, and the foundation of the Irish Free State. HIST 423 and HIST 523 are crosslisted courses. Students may not receive credit for both.
HIST 424. Modern Ireland: 1798-Present (5). The history of Ireland from the revolt of 1798 through the present. Focus will be on the varieties of Irish nationalism, the process of state-building, and the ongoing troubles in the north. HIST 424 and HIST 524 are equivalent courses. Students may not receive credit for both.
HIST 426. France 1789-1945 (5). French history through the lens of revolution. Discussions of the variety of French revolutions (1789, 1792, 1830, 1848, 1870) and concluding with the National Revolution of Vichy France. HIST 526 is a graduate component of HIST 426. Students may not receive credit for both.
HIST 427. Modern Britain and the Empire since 1688 (5). History of Britain and the empire since the Glorious Revolution. Topics include growth of Empire, industrialization, political reform, world
wars, decolonization, and post-war social changes. HIST 427 and HIST 527 are equivalent courses. Students may not receive credit for both.
HIST 431. Africa: The Crisis of Nation
Building (5). An in-depth multidisciplinary approach to the present political and socioeconomic issues, problems, and tensions in selected areas of Africa. HIST 431 and HIST 531 are equivalent courses. Students may not receive credit for both.
HIST 433. Selected Topics in African
History (5). Specific matter will vary but emphasis will be on the social and cultural development of African states since precolonial times. HIST 433 and HIST 533 are equivalent courses. Students may not receive credit for both.
HIST 435. History of South Africa (5). This course examines the history of South Africa from the earliest time to the present. It looks at pre-colonial African states; colonialism; apartheid; and the triumph of African nationalism under the ANC and Nelson Mandela. HIST 535 is the graduate version of HIST 435; students may not receive credit for both.
HIST 436. The History of Arab and Israeli Relations (5). This course examines the history of the Arab-Israeli conflict beginning with the decline of the Ottoman Empire and the British mandate in Palestine. It focuses on the post-1948 Arab relations with Israel in Palestine. HIST 536 is the graduate version of HIST 436; may not receive credit for both.
HIST 437. History of Islamic Traditions (5). This course will cover the history of Islam and Muslim societies around the world since 1700 using a global perspective. It will also examine Islamic developments in Asia, Europe, and North America. HIST 537 is the graduate version of HIST 437; may not receive credit for both.
HIST 438. Conquests and Compromises: American Indian History since 1492 (5). Discussion and lecture course on interactions between Native Americans and Europeans in North America since the arrival of Columbus. HIST 438 and HIST 538 are equivalent courses. Students may not receive credit for both.
HIST 440. The American Revolution (5). Causes and consequences of the American Revolution, 1688-1789. HIST 540 is a graduate component of HIST 440. Students may receive credit for only one course.
HIST 441. Oral History (3). Training and practice in conducting oral histories and analyzing their content.
HIST 443. The West in American History (3-5). Exploration, territorial acquisition, patterns of settlement, economic development, and the influence of the frontier on American institutions. HIST 443 and HIST 543 are equivalent courses. Students may not receive credit for both.
HIST 444. Sectionalism, Civil War, and
Reconstruction (3-5). Slavery, the Old
South, sectionalism, the breakdown of the

Union, and secession. A military, political, and social history of North and South during the Civil War, and the aftermath of the war. HIST 444 and HIST 544 are equivalent courses. Students may not receive credit for both.
HIST 449. History of Women and the West (5). Women in the western United States, with emphasis on the 19th and 20th centuries: myths and stereotypes; women's work; community roles; class and racial/ ethnic differences. HIST 449 and HIST 549 are equivalent courses. Students may not receive credit for both.
HIST 450. Exploring U.S. Cultural
History (5). Thematic approach to 19thcentury cultural transformations in U.S. Selected topics; mesmerism, utopias, true womanhood, women's rights, slave spirituals, confidence men, and gold rushes. HIST 450 and HIST 550 are equivalent courses. Students may not receive credit for both.
HIST 451. 20th-century U.S.: 1896-1919 (3-5). Imperialism, progressivism, and World War I. HIST 451 and HIST 551 are equivalent courses. Students may not receive credit for both.
HIST 452. 20th-century U.S.: 1919-1945 (3-5). Prosperity and depression; the New Deal and its implications; World War II, origins and conclusion. HIST 452 and HIST 552 are equivalent courses. Students may not receive credit for both.
HIST 453. 20th-century U.S.: 1945 to the Present (3-5). Cold War, sedentary 50s, rebellious 60s, the Watergate era. HIST 453 and HIST 553 are equivalent courses. Students may not receive credit for both.
HIST 454. American Environmental History (5). Environmental values and practices of the diverse populations of America. HIST 454 and HIST 554 are equivalent courses. Students will be given credit for only one course.
HIST 462. History of American Foreign Relations: 1900-1941 (3-5). From the Spanish-American War to Pearl Harbor. HIST 462 and HIST 562 are equivalent courses. Students may not receive credit for both.
HIST 463. History of American Foreign
Relations Since 1941 (3-5). From Pearl Harbor to the present. HIST 463 and HIST 563 are equivalent courses. Students may not receive credit for both.
HIST 464. Latin American Revolutions (5). This course compares and contrasts the causes, courses, and consequences of the Mexican Revolution (1910-40), the Cuban Revolution (1959-present), the Chilean Revolution (1970-73), and the Nicaraguan Revolution (1979-89). HIST 464 and HIST 564 are equivalent courses. Students may not receive credit for both.
HIST 465. History of the People's Republic of China. (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 equivalent courses. Students may not receive credit for both.
HIST 469. History of Russian and Soviet Women (5). Examination of the social status and cultural representations of women in Russia and the Soviet Union from the 17th-century to the present. HIST 569 is the graduate version of HIST 469. Students may not receive credit for both.
HIST 472. German History since 1815 (3-5). A political, socio-economic, and intellectual study of Germany with special attention to the causes, progress, and aftermath of the National Socialist State.
HIST 473. Russia to 1881 (3-5). The political, social, economic, and cultural development of Russia from ancient times to the assassination of Alexander II. HIST 473 and HIST 573 are equivalent courses. Students may not receive credit for both.
HIST 474. Russia Since 1881 (3-5). The political, economic, social, and cultural history of Russia and the Soviet Union since 1881. HIST 474 and HIST 574 are equivalent courses. Students may not receive credit for both.
HIST 476. History of Modern East Europe (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. Corresponds with HIST 576. Students may not receive credit for both.
HIST 478. Russian Far East (5). Russian Far East history from 16th-century Cossak 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 and HIST 478/578 are equivalent courses. Student may not receive credit for more than one.
HIST 480. Topics in Comparative History
(5). Course covers comparative themes in history, with comparisons across geographic, chronological, or disciplinary boundaries. Prerequisite: junior or senior standing. Topic will rotate each quarter depending on instructor(s). May be repeated for a total of 15 credits.
HIST 481. Understanding History (4). Analysis of the nature of history, of the way historians reason, and of the search for meaning in history. Prerequisite: HIST 302 and senior standing. Students must earn a minimum grade of $C$ as a major requirement.
HIST 483. Modern China (5). The history of China in the 19th and 20th centuries, including the nature of China's response to the West and the Chinese Revolution of the 20th century. Emphasis on internal social and economic change. HIST 483 and HIST 583 are equivalent courses. Students may not receive credit for both.
HIST 484. Modern Japan (3-5). The recent historical development of Japan beginning with the collapse of the Tokugawa

Shogunate and the resumption of foreign contacts in the mid-19th century. Emphasis is given to the modernization process with its concomitant political, social, economic, and intellectual changes. HIST 484 and HIST 584 are equivalent courses. Students may not receive credit for both.
HIST 487. The Russian Revolutionary
Movement (3-5). Origins and development of Russian radicalism through the Bolshevik Revolution of 1917. HIST 487 and HIST 587 are equivalent courses. Students may not receive credit for both.
HIST 488. Mexico in the Modern Era (5). Analyzes the modern history of Mexico, from independence to the present day. HIST 488 and HIST 588 are equivalent courses. Students may not receive credit for both.
HIST 490. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U. HIST 490 and HIST 590 are equivalent courses.
HIST 496. Individual Study (1-6).
Prerequisite: permission of instructor.
HIST 497. Honors Individual Study (1-
6). Open to students accepted into the departmental honors program. This course may be repeated once, but no more than an over-all total of 6 credits per quarter is permitted.
HIST 498. Special Topics (1-6).


## MUSIC DEPARTMENT

## Ellensburg

Music Building, room 144
509-963-1216
Fax: 509-963-1239
www.cwu.edu / ~music
See Web site for how music programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Todd Shiver, DMA

Associate Chair
Larry Gookin, MM
Professors
Joseph Brooks, MM, clarinet, saxophone, woodwind methods
Chris Bruya, MM, jazz studies, theory, trumpet
Larry D. Gookin, MM, bands, low brass, music education, conducting
Peter Gries, DMA, piano, theory, counterpoint, analysis
Linda Marra, DMA, voice, opera, diction, literature, pedagogy
Carrie Rehkopf-Michel, MM, violin, chamber music, Kairos String Quartet
John Michel, MM, cello, chamber music, pedagogy, Kairos String Quartet
Hal Ott, DM, flute, history, literature
John F. Pickett, DM, piano, literature, pedagogy
Vijay Singh, MAT, jazz studies, choir, voice, music business
Jeffrey Snedeker, DMA, horn, brass methods, music history

## Associate Professors

Mark Babbitt, DMA, trombone, symphonic band, theory
Mark Goodenberger, MM, percussion John Harbaugh, MME, trumpet, jazz studies
Bret Smith, PhD, music education, string pedagogy

## Assistant Professors

Gayla Blaisdell, PhD, voice, opera
Nikolas Caoile, DMA, orchestra, conducting Mark Lane, MM, music education, band
Elaine Ross, PhD, theory, composition

## Lecturers

Tim Betts, MM. viola, theory, Kairos string quartet
James Durkee, MM, guitar, music literature Brent Hages, BM, oboe
Jon Hamar, MM, string bass
Sidney Nesselroad, DMA, voice
Heather Netz, MM, violin, music appreciation, Kairos string quartet
Curtis Peacock, MM, tuba, euphonium, history of jazz
Barbara Pickett, MM, piano, class piano
Maria Roditeleva-Wibe, PhD, piano, music history, theory

Florie Rothenberg, DMA, clarinet
Emelie Spencer, MM, voice

## Staff

Marcie Brown, program assistant
Star Heger, fiscal specialist
Allen Larsen, hall manager, audio tech., web manager
Harry Whitaker, piano technician
Tinja Wyman, office supervisor

## Department Information Mission Statement

The Department of Music is a community of artists, scholars, and educators dedicated to achieving the highest standards of musical knowledge, performance, and teaching. The department is committed to preparing students for careers in music, providing the opportunity to become literate, skilled, knowledgeable, and confident music educators, performers, and practitioners, able to influence and enrich the musical lives of the communities in which they serve. The department provides opportunities for the general student to study music as an essential part of a liberal arts education and engage in artistic experiences, serve as a leader for K-12 music education, and provide opportunities for the general public to experience music performances of the highest quality in a broad range of styles and genres.

## Department Vision

The Department of Music will be recognized and respected for its challenging curriculum and supportive environment, for the excellence of its student, ensemble, and faculty performances, and for the fulfillment of its motto: "Where Teaching is a Performing Art."

## Accreditation

The department is an institutional member of the National Association of Schools of Music (NASM).

## Admission Requirement

All entering students who plan to pursue either a major or minor in the music department must audition for acceptance into the program before a faculty committee. See the department's Web site for audition information.

## Common Exit Requirements

All music majors must pass a keyboard proficiency exam as a graduation requirement. Music education majors will not be scheduled for student teaching until this proficiency is completed.

## Standards

Music Education majors must meet the standards for acceptance into the Professional Education Program.

## Required Participation:

1. All entering music majors must enroll in a theory course at the appropriate level, if a two-year theory sequence has not been satisfactorily completed in previous college- or university-level study. All entering students must pass an online exam in music fundamentals as a prerequisite for MUS 144, the first quarter of the theory sequence. All transfer students with previous theory study must take a diagnostic theory exam during the first week of their first quarter in residence. Details are on the department Website.
2. All music majors must enroll in a large ensemble appropriate to their major performance area during each quarter of enrollment as a full-time student. Enrollment in either Women's Choir or Men's Choir can be substituted for enrollment in a choral large ensemble for a maximum of three quarters.
3. All students enrolled in applied music (private lessons) must attend all biweekly music major convocations and studio classes and at least seven recitals each quarter. See the music department's Web site for large ensemble details and the music student handbook.

## Departmental Honors

Consult the department Web site for information about the departmental honors program.

## Certification Programs

The department offers post-baccalaureate students the opportunity to earn Teaching Certification in three endorsement areas. To enter the Certification Program, a baccalaureate degree in music is required. Endorsement for certification requires completion of all courses listed in the CWU curricular requirements of each specialization, plus meeting all applied proficiencies and ensemble course credits. Consultation with the faculty Music Education Specialist is mandatory for students entering this program.

## Department Fees

All fees are billed to students' accounts.
A \$60 fee for each enrolled applied music course

A $\$ 40$ fee each quarter for students enrolled in Vocal Jazz I

A $\$ 40$ fee for each scheduled student recital

A $\$ 15$ fee for each MUS 252, 253, and 254 (Class Instrumental Methods) course

A \$5 annual locker fee
A $\$ 5$ fee for students enrolled in Percussion Ensemble

A university $\$ 25$ tech fee covers use of electronic equipment used in all music courses. Part-time students enrolled in Theory, Class Piano, Composition, or Electronic Music courses will be assessed this fee.

## Applied Music (Individual Lessons)

Student advancement through performance levels (164-464) is determined by jury examination, conducted at the end of the quarter in which a level change is attempted. Students studying at the 364 level must present at least a one-half recital as a graduation requirement. See the Undergraduate Handbook for policies regarding Applied Music Study. The handbook is available on the department Web site at www.cwu.edu / ~music. Applied Music requirements differ according to the degree.

## Ensemble Participation

Participation in performance ensembles is an essential part of the music major experience. Rehearsing and performing as part of a band, orchestra, or choir provides many benefits. It develops musical listening and performing skills, expands knowledge of repertoire, including contemporary works and classics of the musical canon, provides the opportunity to learn the style characteristics of historical periods and elements of musical structures, and promotes cohesiveness in the musical community.

For future music directors and educators, the ensemble directors serve as models of how to develop such ensembles and how to utilize efficient and productive rehearsal techniques. To ensure that all music majors derive full benefit of this experience, participation in a large ensemble (defined below) appropriate to the major performing area is required of all music majors every quarter in residence as a full-time student, regardless of the number of credits required in each degree.

When circumstances justify not being in a large ensemble, a large ensemble participation waiver form, available in the music department office, signed by the applied instructor/advisor and ensemble director must be submitted for approval by the department chair.

Only the following are designated as large ensembles: Wind Ensemble, MUS 266/466; Choir, MUS 267/467; Chamber Choir, MUS 268/468; Orchestra, MUS 277/477; Marching and Concert Band, MUS 287/487 (fall quarter only); Concert Band, MUS 288/488.

All ensemble courses have 200-level and 400 -level numbers. The 200-level numbers are used by freshmen and sophomores; the 400-level numbers by juniors and seniors.
MUS 104 - Introduction to Musical Studies
(3) is for entering students with fewer than

45 transfer quarter credits (not including Running Start credits).
MUS 304 - Introduction to Musical Studies for Transfer Students (2) is for transfer students with 45 or more quarter credits (not including Running Start credits).

## Bachelor of Music in Composition

Bachelor of music in theory / composition is intended for students whose primary interest is in music theory or composition, and for those who intend to pursue graduate work in music theory or composition.

## Required Courses

Select Either
MUS 104 - Introduction to Musical Studies (3) OR
MUS 304 - Introduction to Musical
Studies for Transfer Students (2)

## Applied Music

Individual Instruction
MUS 164 - Major Applied Area
MUS 264 - Major Applied Area
(NOTE: At least 4 credits of MUS 264 required.)
MUS 364 - Major Applied Area
Secondary Applied . . . . . . . . . . . . . . . . . . . . . . 3
MUS 171A - Secondary Applied Area Piano (1)
(NOTE: If piano is major applied area,
select another applied area for study.)

## Conducting

MUS 341 - Conducting I . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II . . . . . . . . . . . . . . . . 3

## First-year Theory

Students enrolled in the first-year theory sequence (MUS 144, 145, 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.
MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3
Second-year Theory
MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 340 - Analytical Techniques I ......... . 3
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . . 3
MUS 346 - Counterpoint II . . . . . . . . . . . . . . . 3
MUS 440 - Analytical Techniques II . . . . . . . . 3
Music History
MUS 359 - Survey of Music in
Cross-cultural Perspectives 3

MUS 372 - Music History to 1600 . . . . . . . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3

MUS 374 - Music History, 1800 to
the Present
Ensemble ..... 18

Large Ensembles (10-12)
Only the following are designated as large ensembles: MUS 267-467 (Choir),
MUS 268-468 (Chamber Choir), MUS 266-466 (Wind Ensemble), MUS 277-477 (Orchestra), MUS 287-487 (Marching and Concert Band-fall quarter only) and MUS 288-488 (Symphonic Band).
Chamber Ensembles (6-8)
Music Composition $\qquad$
Audition requirement: submit 2 or 3 short contrasting compositions and demonstrate proficiency on primary instrument. (Formal declaration of a major in composition cannot occur until the end of the first-year theory sequence with the grade of at least a B-, completion of MUS 120, and permission of instructor). Transfer students may bypass MUS 120 with permission based upon composition submissions and sufficient audition on primary instrument. It will normally take transfer students three years to complete the degree requirements.

MUS 120 - Composition (3)
MUS 220 - Composition (2)
MUS 320 - Composition (2)
MUS 420 - Composition (3)
(NOTE: Student must take 3 quarters each of MUS 220, 320, and 420.)
Electronic Music. . . . . . . . . . . . . . . . . . . . . .3-5
MUS 347 - Electronic Music (2) (Recommended)
MUS 348 - Applications of Music Technology (3)
Additional Required Courses
MUS 255 - Keyboard Harmony and
Improvisation. . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 422A - Orchestration . . . . . . . . . . . . . . . . 3
MUS 485 - Choral Arranging. . . . . . . . . . . . . . . 3
MUS 486 - Jazz Band Arranging . . . . . . . . . . . . 3
Music Electives . . . . . . . . . . . . . . . . . . . . . . . .1-3

## Recital Requirements

Half Recital on primary instrument with MUS 364; Full Composition Recital with MUS 420.

Total Credits: 127-128

## Bachelor of Music <br> Music Vocal Performance Major

Prior to completion of the bachelor's degree, vocal performance majors must:

1. Demonstrate the ability to translate musical texts in French and German
2. Demonstrate competency in French or German equal to the successful completion of French 153 or German 153.

## Required Courses

Select Either .
MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical
Studies for Transfer Students (2)

Ensemble
Large Ensemble (20-24)
Only the following are designated as Large Ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir), MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band - fall quarter only) and MUS 288-488 (symphonic band).
Chamber Ensemble (6-10)

## Applied Music

Individual Instruction $\qquad$
MUS 164 - Major Applied Area (Individual Instruction) (1, 2, or 4)
MUS 264 - Major Applied Area (Individual Instruction) (1, 2, or 4)
MUS 364 - Major Applied Area (Individual Instruction) (1,2,, or 4)
MUS 464 - Major Applied Area (Individual Instruction) $(1,2$, or 4$)$ (NOTE: At least 8 credits of MUS 464 required.)

## Conducting

MUS 341 - Conducting I . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II . . . . . . . . . . . . . . . . . . 3
First-year Theory
Students enrolled in the first-year theory sequence (MUS 144, 145, 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.
MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3

## Second-year Theory

MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 340 - Analytical Techniques I . . . . . . . . 3
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3

## Music History

MUS 359 - Survey of Music in
Cross-Cultural Perspectives
. 3
MUS 372 - Music History to 1600 . . . . . . . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to
the Present
. 4

## Additional Required Courses

MUS 230 - Diction in Singing Foreign Languages3

MUS 425B - Vocal Pedagogy (Studio) . . . . . . 3
MUS 426B - Vocal Literature (Studio) . . . . . . . 3
Music Electives . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total Credits: 122-123

## Bachelor of Music Keyboard Performance Major

## Keyboard Performance Core Credits

Select Either . . . . . . . . . . . . . . . . . . . . . . . . . . .2-3
MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)
Ensemble .
Large Ensembles (6-12)
Only the following are designated as large ensembles: MUS 266-466 (wind ensemble), MUS 268-468 (chamber choir), MUS 277-477 (orchestra), MUS 287-487 (marching and concert bandfall quarter only) and MUS 288-488 (symphonic band).
Note: All ensemble courses have 200 -level and 4000 -level numbers. The 200-level numbers are freshmen and sophomores, the 400 -level numbers are used by juniors and seniors.
Chamber Ensembles (9-15)

## Applied Music

Individual Instruction . . . . . . . . . . . . . . . . . 36
MUS 164 - Major Applied Area
(Individual Instruction) (1, 2, or 4)
MUS 264 - Major Applied Area (Individual Instruction) (1, 2, or 4)
MUS 364 - Major Applied Area (Individual Instruction) (1, 2, or 4)
MUS 464 - Major Applied Area (Individual Instruction) (1, 2, or 4) (NOTE: At least 8 credits of MUS 464 required.)

## Conducting

MUS 341 - Conducting I . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II . . . . . . . . . . . . . . . . . . 3
First-year Theory
Students enrolled in the first-year theory sequence (MUS 144, 145, 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.
MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . . 3

## Second-year Theory

MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 340 - Analytical Techniques I ......... 3
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3
MUS 440 - Analytical Techniques II . . . . . . . . 3

## Music History

MUS 359 - Survey of Music in Cross-cultural
Perspectives
. 3
MUS 372 - Music History to 1600 . . . . . . . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3

MUS 374 - Music History, 1800 to
the Present

## Additional Courses

MUS 292 - Accompanying Practicum . . . . . . 4
MUS 425A - Pedagogy (Studio Piano) ..... 3
MUS 426A - Literature (Studio Piano) . . . . . 3
MUS 492 - Accompanying Practicum . . . . . . 4
Music Electives
Total Credits: 122-123

## Bachelor of Music

## Percussion Performance Major

 Wind Performance Major String Performance MajorStudent advancement through performance levels (164-464) is determined by jury examination. All bachelor of music performance majors must successfully complete eight credits at the MUS 464 level, present a joint recital in the junior year, and a full recital in the senior year.

## Required Courses

Select Either .
MUS 104 - Introduction to Musical Studies (3) OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)

## Ensemble

Large Ensemble (20-24) Only the following are designated as large ensembles for Instrumental Performance Majors: MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band - Fall quarter only) and MUS 288-488 (symphonic band).
Chamber Ensemble (6-10)

## Applied Music

Individual Instruction . . . . . . . . . . . . . . . . . . 36
MUS 164 - Major Applied Area (Individual Instruction) (1, 2, or 4) MUS 264 - Major Applied Area (Individual Instruction) (1, 2 , or 4 ) MUS 364 - Major Applied Area (Individual Instruction) (1, 2, or 4) MUS 464 - Major Applied Area (Individual Instruction) (1, 2, or 4) (NOTE: At least 8 credits of MUS 464 required.)

## Conducting

MUS 341 - Conducting I . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II

## First-year Theory

Students enrolled in the first-year theory sequence (MUS 144, 145, 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.

MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3

## Second-year Theory

MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory ........... . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 340 - Analytical Techniques I ........ . . 3
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3

## Music History

MUS 359 - Survey of Music in
Cross-cultural Perspectives . . . . . . . . . . . . . 3
MUS 372 - Music History to 1600 ........ . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to
the Present

## Additional Required Courses

MUS 425 C, D, E, or G* - Pedagogy (Studio) 3 MUS 426 C, D, E, or G* - Literature (Studio) 3
*In appropriate performance area: $\mathrm{C}=$ string, $\mathrm{D}=$ woodwinds, $\mathrm{E}=$ brass, $\mathrm{G}=$ percussion.
Music Electives .6
Total Credits: 122-123

## Bachelor of Music Music Education Major with Specialization

All students majoring in music education will be reviewed and counseled by the Music Education Committee during each year of full-time enrollment. The purpose of these reviews is to assist the student in developing all the skills necessary to be an effective music educator. One year before student teaching, the student's accomplishments are reviewed by the entire music faculty. In order to receive an endorsement to student teach, the student must receive a satisfactory evaluation in all areas of music study. All music education majors must pass the required piano proficiency examination prior to endorsement for student teaching. Students taking this major must apply for admission into the teacher preparation program with the education department and are required to complete the Professional Education Program requirements offered through the education department.

## Broad Area - Choral or <br> Broad Area - Instrumental Specialization

Total music credits: 96-97. Total professional education credits: 47-52. This major satisfies the endorsements for musicgeneral, music-instrumental, and musicchoral, K-12. To qualify for student teaching, the following courses must be completed: MUS 323, MUS 325, MUS 329, MUS 341, and MUS 342.

## Music Education Core Requirements

Select Either . .2-3

MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)
Large Ensemble Minimum
Six credits must be in large ensemble of secondary specialization performing area. Only the following are designated as large ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir), MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band - fall quarter only), and MUS 288-488 (symphonic band).

## Applied Music

Individual Instruction . . . . . . . . . . . . . . . . . 12
MUS 164 - Major Applied Area
(Individual Instruction) (1, 2 or 4 )
MUS 264 - Major Applied Area (Individual Instruction) (1, 2 or 4)
MUS 364 - Major Applied Area (Individual Instruction) $(1,2$, or 4$)$ (NOTE: At least 4 credits of MUS 364 are required.)
Conducting
MUS 341 - Conducting I . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II

## First-year Theory

Students enrolled in the first-year theory sequence (MUS 144, MUS 145 and MUS 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.

MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3
Second-year Theory
MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory .......... . . . 3
Upper-division Theory
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3

## Music History

MUS 359 - Survey of Music in
Cross-cultural Perspectives . . . . . . . . . . . . . 3
MUS 372 - Music History to 1600 ........ . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to
the Present . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Core Total Credits: 75 to 76
Additional Required Courses
*MUS 154A - Class Instruction, Piano (1) . . . 2
*MUS 154B - Class Instruction, Voice I (1) . . . 2
MUS 253C - Class Instrumental Methods
Strings I . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 253D - Class Instrumental Methods
Woodwinds I
. 1

$\qquad$
Brass I . . . . . . . . . . . . . . . . . . . . . . . . . .
MUS 253G - Class Instrumental Methods
$\qquad$
MUS 254C - Class Instrumental Methods
$\qquad$
MUS 254D - Class Instrumental Methods
Woodwinds II . . . . . . . . . . . . . . . . . . . . . .
MUS 254E - Class Instrumental Methods Brass II
MUS 323 - Choral Music Education .....................................
MUS 325 - Instrumental Music Education . . 3
MUS 329 - General Music Methods . . . . . . . . 4
Total Credits: 96-97
*2 quarters, each 1 credit

## Music Education, Instrumental Music Specialization

Total music credits: 91-92. Total professional education credits: 47-52. This major satisfies the endorsements for MusicGeneral and Music-Instrumental, K-12. To qualify for student teaching, the following courses must be completed: MUS 325, MUS 329, MU 341, and MUS 342.

## Music Education Core Requirements

Select Either .
MUS 104 - Introduction to Musical Studies (3) OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)
Ensemble
Large ensemble minimum 22 credits. All large ensemble credits must be in an instrument ensemble. Only MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band (fall quarter only), and MUS 288-488 (symphonic band) are designated as large instrumental ensembles.

## Applied Music

Individual Instruction $\qquad$ 12
MUS 164 - Major Applied Area (Individual Instruction) (1,2 or 4)
MUS 264 - Major Applied Area (Individual Instruction) (1,2 or 4)
MUS 364 - Major Applied Area (Individual Instruction) (1,2, or 4) (NOTE: At least 4 credits of MUS 364 are required.)

## Conducting

MUS 341 - Conducting I
MUS 342 - Conducting II
First-year Theory Students enrolled in the first-year theory sequence (MUS 144, MUS 145, and MUS 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.

MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
1 MUS 145 - First-year Theory . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3
Second-year Theory
MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 343 - Counterpoint I . . 3

## Music History

MUS 359 - Survey of Music in
Cross-cultural Perspectives
MUS 372 - Music History to 1600 . ........ . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to the Present .4

## Core Total Credits: 75-76

## Additional Required Courses

*MUS 154B - Class Instruction, Voice I (1) . . 2
MUS 253C - Class Instrumental Methods Strings I
. . 1
MUS 253D - Class Instrumental Methods Woodwinds I
MUS 253E - Class Instrumental Methods Brass I
. 1

Brass 1. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 254C - Class Instrumental Methods Strings II .
MUS 254D - Class Instrumental Methods Woodwinds II . . . . . . . . . . . . . . . . . . . . . . .
MUS 254E - Class Instrumental Methods Brass II
. . 1

MUS 325 - Instrumental Music Education . . 3
MUS 329 - General Music Methods
Total Credits: 90-91
*2 quarters, each 1 credit

## Music Education, Choral Music Specialization

Total music credits: 90-91. Total
professional education credits: 47-52. This major satisfies the endorsements for MusicGeneral and Music-Choral, K-12. To qualify for student teaching, the following courses must be completed: MUS 323, MUS 329, MUS 341, and MUS 342. Instrumentalists pursuing this major must enroll for three credits of applied voice: MUS 171A, 271A or 370A.

## Music Education Core Requirements

Select Either . . . . . . . . . . . . . . . . . . . . . .
MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)
Ensemble
All large ensemble credits must be in a choral ensemble. Only MUS 267-467 (choir) and MUS 268-468 (chamber choir) are designated as large choral ensembles.

## Applied Music

Individual Instruction . . . . . . . . . . . . . . . . . 12
MUS 164 - Major Applied Area
(Individual Instruction) (1, 2, or 4)
MUS 264 - Major Applied Area
(Individual Instruction) (1, 2, or 4)
*MUS 364 - Major Applied Area
(Individual Instruction) (1,2, or 4 )
*At least 4 credits of MUS 364 are required.

## Conducting

MUS 341 - Conducting I . . . . . . . . . . . . . . . . . . 3
MUS 342 - Conducting II . . . . . . . . . . . . . . . . . 3

## First-year Theory

Students enrolled in the first-year theory sequence (MUS 144, MUS 145, and MUS 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.
MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . 3
Second-year Theory
MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3
Music History
MUS 359 - Survey of Music in
Cross-cultural Perspectives . . . . . . . . . . . . . 3
MUS 372 - Music History to 1600 . . . . . . . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to
the Present . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Core Total Credits: 75-76
Additional Required Courses
*MUS 154A - Class Instruction, Piano (1) . . . 2
MUS 230 - Diction in Singing Foreign
Languages
.3
MUS 323 - Choral Music Education ....... . 3
MUS 329 - General Music Methods . . . . . . . . 4
MUS 425B - Pedagogy, Vocal . . . . . . . . . . . . . 3
Total Music Credits: 90-91
*2 quarters, each 1 credit

## Bachelor of Arts

## Music Major

Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.

## Required Courses

Select Either Credits . . . . . . . . . . . . . . . . . . . 2-3
MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical
Studies for Transfer Students (2)


Total Credits: 70-71

## Music Jazz Specialization

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Required Courses

Select Either Credits . . . . . . . . . . . . . . . . . . . . 2-3
MUS 104 - Introduction to Musical Studies (3)
OR
MUS 304 - Introduction to Musical Studies for Transfer Students (2)

## Ensemble

Large Ensemble (minimum) . . . . . . . . . . . . . . 6 Only the following are designated as large ensembles: MUS 267-467 (choir), MUS 268-468 (chamber choir) MUS 266-466 (wind ensemble), MUS 277-477 (orchestra), MUS 287-487 (marching and concert band-fall quarter only), and MUS 288-488 (symphonic band).
Jazz Ensembles
Choose from
MUS 210/410 (Jazz Choir), MUS
232/432 (Jazz Band). All Jazz
Ensembles are one-credit courses.
Jazz Combos
MUS 218/418. All MUS 218/418
courses are one-credit courses.
Applied Music
Private Instruction.
MUS 164 - Major Applied Area (Individual Instruction) (1, 2, or 4)
*MUS 264 - Major Applied Area (Individual Instruction) (1, 2, or 4)
*MUS 366 - Secondary Applied Area (Individual Instruction) (1)
*At least 6 credits of MUS 264 and 6 credits of MUS 366 are required.

First-year Theory
Students enrolled in the first-year theory sequence (MUS 144, 145, 146) must have passed or be currently enrolled in the corresponding class piano course (MUS 154A). A waiver of this requirement can be obtained by demonstrating keyboard skills to any piano faculty member. A grade of $C$ or better is required to continue on to each successive quarter of the theory sequence.
MUS 144 - First-year Theory . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . . 3

## Second-year Theory

MUS 244 - Second-year Theory . . . . . . . . . . . 3
MUS 245 - Second-year Theory . . . . . . . . . . . 3
MUS 246 - Second-year Theory . . . . . . . . . . . 3
Upper-division Theory
MUS 343 - Counterpoint I . . . . . . . . . . . . . . . . 3
Music History
MUS 359 - Survey of Music in
Cross-cultural Perspectives .
MUS 372 - Music History to 1600 . . . . . . . . . 2
MUS 373 - Music History, 1600 to 1800 . . . . . 3
MUS 374 - Music History, 1800 to the Present

Additional Required Courses
MUS 353 - Jazz Improvisation I . . . . . . . . . . . . 1
MUS 354 - Jazz Improvisation II . . . . . . . . . . . . . 1
MUS 355 - Jazz Improvisation III . . . . . . . . . . . 1

MUS 356 - Jazz Styles . . . . . . . . . . . . . . . . . . . 3
MUS 357 - Jazz Composition and
Arranging .................................. . . 3
MUS 485 - Choral Arranging. . . . . . . . . . . . . . 3
OR
MUS 486 - Jazz Band Arranging (3)
MUS 495 - Senior Project . . . . . . . . . . . . . . . . . 2
Total Credits: 79-80

## Music Minor

MUS 154A I, II, and III (Class Piano) may be used to satisfy both corequisite requirements for MUS 144, 145, and 146 and elective requirements.

## Required Courses

Ensemble (large ensemble or chamber

ensemble)

6

Music electives . . . . . . . . . . . . . . . . . . . . . . . . . . 6
MUS X71 or X64, Applied Music . . . . . . . . . . 6
First-year Theory
MUS 144 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 145 - First-year Theory . . . . . . . . . . . . . . . 3
MUS 146 - First-year Theory . . . . . . . . . . . . . . . 3
Select Either . . . . . . . . . . . . . . . . . . . . . . . . . . .2-3
MUS 104 - Introduction to Musical
Studies (3)
OR
MUS 304 - Introduction to Musical
Studies for Transfer Students (2)
MUS 359 - Survey of Music in
Cross-cultural Perspectives
OR
MUS 379 - Philosophy of Music (3)
Total Credits: 32-33

## Non-profit Organization Administration Minor

The minor in non-profit organization administration is an interdisciplinary minor designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing nonprofit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership
COM 427 - Grant Writing/Fund-raising . . . . 3
COM 470 - Applied Public Relations (5)
OR
COM 475 - Public Relations and
Advertising Management (4).4-5

Choose one of the following: . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education
(Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education
(Internship) (5)

MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

## Areas of Interest

Choose any of the following for a total
of at least 9 credits. . . . . . . . . . . . . . .
ANTH 360 - Introduction to Museum Studies (4)
361 - Museum Exhibit Design (4)
COM 370 - Writing for Public Relations (4)
COM 487 - Public Relations Professional Seminar (3)
MUS 482 - Music Business (3)
TH 350 - Theatre Management (3)
TH 351 - Theatre Management (3)
TH 360 - Stage Management (3)
Total Credits: 29-30

## Non-profit Organization Administration Certificate

The certificate in non-profit organization administration is an interdisciplinary approach designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The courses provide practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/Fund-raising . . . . 3
COM 470 - Applied Public Relations (5) OR
COM 475 - Public Relations and
Advertising Management (4).$.4-5$

Choose one of the following:. . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

Total Credits: 20-21

## Music Foreign Studies Courses

MFST 220. Second-year Composition (1-3). Offered only in study abroad programs. Courses must be taken in sequence, although a student may enroll in more than one at a time. May be repeated for credit.
MFST 320. Third-year Composition (1-3).
Offered only in study abroad programs.
Courses must be taken in sequence, although a
student may enroll in more than one at a time. May be repeated for credit.
MFST 364. Applied Performance A (2-4). Offered only in study abroad programs. Courses must be taken in sequence, although a student may enroll in more than one at a time. May be repeated for credit.
MFST 420. Fourth-year Music Composition (1-3). Offered only in study abroad programs. Courses must be taken in sequence, although a student may enroll in more than one at a time. May be repeated for credit.
MFST 443. Advanced Theory (3). Offered only in study abroad programs. May be repeated for credit.
MFST 464. Applied Performance B (2-4). Offered only in study abroad programs. Course must be taken in sequence, although a student may enroll in more than one at a time. May be repeated for credit.
MFST 489. Ensemble Performance (2). Offered only in study abroad programs. Courses must be taken in sequence, although a student may enroll in more than one at a time. May be repeated for credit.

## Music Courses

Performance activities are designated by the following code:
A. Piano
B. Voice
C. Strings
D. Woodwinds
E. Brass
F. Organ
G. Percussion
H. Guitar
I. Recorder
K. Harpsichord
L. Mixed

MUS 101. History of Jazz (5). America's only indigenous art form, late 1800s to present. Emphasis on artists and cultural/ societal forces shaping music's evolution. Extensive listening, reading; required attendance of performances.
MUS 102. Introduction to Music (5).
Fundamental musical concepts (melody, harmony, rhythm, form, etc.) through illustrations of the instrumental and vocal music of major composers from the earliest period through the present day.
MUS 104. Introduction to Musical Studies (3). Attitudes and concepts relevant to the music profession. Listening repertoire and reference materials. Designed for entering music majors.
MUS 120. Composition (3). Introduction to composition addressing such topics as phrase structure, melodic development, modulations, textures, and transitions. Small compositional projects emphasizing certain stylistic traits for piano and other genres. Prerequisite: MUS 145 and corequisite MUS 146 or permission of the instructor.
MUS 143. Introduction to Music Theory (3). Introduction of fundamental music theory: scales, keys, meter, and rhythm, triads,
ear training, and keyboard fundamentals. Course is designed for non-majors seeking basic musical skills, and for music majors with limited theoretical backgrounds. Does not count toward a music degree.
MUS 144. First-year Theory (3). The melodic, rhythmic, and harmonic elements of music through ear training, sight singing, writing, analysis, and keyboard work. Prerequisites: students must be concurrently enrolled in MUS 154A (Class Piano I), or demonstrate equivalent proficiency, or by permission of department chair. Courses must be taken in sequence. Two hours lecture and two hours laboratory per week.
MUS 145. First-year Theory (3). The melodic, rhythmic, and harmonic elements of music through ear training, sight singing, writing, analysis, and keyboard work. Prerequisites: students must be concurrently enrolled in MUS 154A (Class Piano I), or demonstrate equivalent proficiency, or by permission of department chair. Courses must be taken in sequence. Two hours lecture and two hours laboratory per week.
MUS 146. First-year Theory (3). The melodic, rhythmic, and harmonic elements of music through ear training, sight singing, writing, analysis, and keyboard work. Prerequisites: students must be concurrently enrolled in MUS 154A (Class Piano I), or demonstrate equivalent proficiency, or by permission of department chair. Courses must be taken in sequence. Two hours lecture and two hours laboratory per week.
MUS 154. Class Instruction (1). Each course prerequisite to the next numeral (A.) Piano I, II, III; (B.) Voice I, II; (H.) Guitar I, II. May be repeated for credit.
MUS 154A. Class Instruction, Piano (1). May be repeated for credit.
MUS 154B. Class Instruction, Voice I (1). May be repeated for credit.
MUS 164. Major Applied Area (Individual Instruction) (1, 2, or 4). By permission of instructor. May be repeated for credit. 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 performance must attend the weekly recital hour, 7th period, Tuesdays. Instruction available in performance areas A-H and K.
MUS 171. Secondary Applied Area (Individual Instruction) (1). Private study on instruments secondary to a student's major performance area. Intended particularly for beginning students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available in performance areas A-I and K. Prerequisite: permission of instructor. One credit any quarter, may be repeated.
MUS 171A. Secondary Applied Area
Piano (1). Private study on instruments secondary to a student's major performance area. Intended particularly for beginning students who wish to develop additional skills on an instrument or in voice to enrich
their total music background. Prerequisite: permission of instructor. One credit any quarter, may be repeated.
MUS 198. Special Topics (1-6).
MUS 210. Vocal Jazz Choir (1). Must attend all scheduled rehearsals and performances. An ensemble specializing in performance of repertoire from jazz choir tradition established in the Northwest and beyond. Limited to SATB singers and rhythmsection instruments. Prerequisite: freshman or sophomore status and by permission of instructor. May be repeated for credit.
MUS 211. Women's Choir (1). May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshmen and sophomores. By permission of instructor.
MUS 213. Flute Choir (1). Previous experience in flute performance and permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshmen and sophomores.
MUS 214. Brass Choir (1). By permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshmen and sophomores.
MUS 215. Chamber Orchestra (1). By permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshmen and sophomores.
MUS 217. Chamber Music Ensemble (1). By permission of instructor. May be repeated for credit. One hour coaching plus two hours of rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas A,C-I, and L.
MUS 218. Jazz Combo (1). Performance in Jazz Combos in various configurations.
MUS 220. Composition (2). Intermediate study in composition. Prerequisite: a minimum of 3 credits in MUS 120 or permission of instructor. May be repeated for a total of 6 credits.
MUS 225. Foundations of Music Education (3). Provides basis for combining musical, teaching, and methodological knowledge to create effective learning experiences as an instructional leader. Prerequisites: grade of C or higher in MUS 146 and admission to Music Education major or permission of instructor.
MUS 228. Men's Choir (1). May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshman and sophomores. By permission of instructor.
MUS 229. Percussion Ensemble (1). By permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For freshmen and sophomores.

MUS 230. Diction in Singing Foreign Languages (3). Covers Italian, French, and German pronunciation for the undergraduate voice student.
MUS 232. Big Band (1). By permission of instructor. May be repeated for credit. Must attend all scheduled rehearsals and performances. For freshmen and sophomores. MUS 432 for juniors and seniors.
MUS 235. Laboratory Choir (1). By permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. Open to all students to participate as singers.
MUS 244. Second-year Theory (3). Prerequisites: MUS 146, 154A (Class Piano III, or equivalent proficiency), or permission of department chair. Courses must be taken in sequence. Twentieth-century musical resources.
MUS 245. Second-year Theory (3). Prerequisites: MUS 146, 154A (Class Piano III, or equivalent proficiency), or permission of department chair. Courses must be taken in sequence. Twentieth-century musical resources.
MUS 246. Second-year Theory (3).
Prerequisites: MUS 146, 154A (Class Piano III, or equivalent proficiency), or permission of department chair. Courses must be taken in sequence. Twentieth-century musical resources.
MUS 252D. Class Instrumental Methods: Double Reeds (1). Techniques and methods in applied instruction in music education.
MUS 253C. Class Instrumental Methods Strings I (1). Lower strings (cello and bass). Techniques and methods in applied instruction for music education.
MUS 253D. Class Instrumental Methods Woodwinds I (1). Lower woodwinds (single reeds). Techniques and methods in applied instruction for music education.
MUS 253E. Class Instrumental Methods
Brass I (1). Lower brass (trombone and tuba). Techniques and methods in applied instruction for music education.
MUS 253G. Class Instrumental Methods Percussion I (1). Techniques and methods in applied instruction for Music Education.
MUS 254C. Class Instrumental Methods Strings II (1). Upper strings (violin and viola). Techniques and methods in applied instruction for music education.
MUS 254D. Class Instrumental Methods Woodwinds II (1). Upper woodwinds (flute). Techniques and methods in applied instruction for music education.
MUS 254E. Class Instrumental Methods Brass II (1). Upper brass (horn and trumpet). Techniques and methods in applied instruction for music education.
MUS 255. Keyboard Harmony and Improvisation (1). For instrumental, choral, and studio teachers providing practical/ working knowledge of keyboard harmony, chord voicing, bass line construction, and improvisation in jazz and pop genres. Prerequisite MUS 146 and MUS 154A.

MUS 261. Opera Workshop (1). A class leading to the performance of scenes and single acts from opera. May be repeated for credit. By permission of instructor.
MUS 262. Opera Performance (1). A class leading to performance of a complete opera. May be repeated for credit. By permission of instructor.
MUS 264. Major Applied Area (Individual Instruction) (1,2, or 4). Instruction available in performance areas A-H and K.
MUS 266. Wind Ensemble (1-2). May be repeated for credit. Open to students with demonstrated proficiency on band instruments by audition or permission of the instructor. Five hours of rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session.
MUS 267. Choir (1-2). May be repeated for credit. Open to all students by audition. Five hours rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session.
MUS 268. Chamber Choir (2). May be repeated for credit. Open to all students by audition. Three hours rehearsal per week plus all scheduled rehearsals and performances.
MUS 271. Secondary Applied Area (Individual Instruction) (1). Private study on instruments secondary to a student's major performance area. Intended particularly for intermediate students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available. Prerequisite: permission of instructor. One credit any quarter, may be repeated.
MUS 277. Orchestra (1-2). May be repeated for credit. Open to all students proficient on orchestral instruments by permission of director. Five hours of rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session.
MUS 287. Marching and Concert Band
(2). Fall quarter only. May be repeated for credit. Five hours of rehearsal per week plus all scheduled rehearsals and performances. This band functions as a marching band and is organized into a concert band at completion of the football season. For freshmen and sophomores.
MUS 288. Symphonic Band (2). Winter and spring quarters only. Five hours of rehearsal per week plus scheduled rehearsals and performances. During winter and spring quarters the symphonic band will present several formal concert programs. May be repeated for credit. For freshmen and sophomores.
MUS 292. Accompanying Practicum (1-3). May be repeated for credit. By assignment of instructor. Minimum three hours of rehearsal weekly per credit plus performances. For freshmen and sophomores.

## MUS 296. Individual Study (1-6).

Prerequisite: permission of instructor. May
be repeated.
MUS 298. Special Topics (1-6).
MUS 299. Seminar (1-5). May be repeated.
MUS 304. Introduction to Musical
Studies for Transfer Students (2). 1. An introduction to the techniques of research in music; 2. A brief survey of concepts in world music.
MUS 315. Fundamentals for High School Musical Theatre Productions (3). An exploration and practical application of the techniques specific to the successful production of musical theatre at the high school level. Crosslisted with TH 315.
MUS 316. Musical Direction for Musical
Theatre (3). The exploration and practical application of responsibilities of the musical director position in high school musical theatre productions, from planning stages through closing night. Crosslisted with TH 316.

MUS 320. Composition (2). Advanced study in composition. Prerequisite: a minimum of 6 credits in MUS 220 or permission of the instructor. May be repeated for a total of 6 credits.
MUS 321. Administration and Assessment in Music Instruction (3). Prepares students to advocate for, organize, and administer comprehensive music programs in schools; deliver and manage classroom music instruction; and assess student musical learning. Prerequisites: MUS 225 and MUS 264 (applied study), junior standing, and application to Professional Education Program.
MUS 323. Choral Music Education (3). Philosophy, methods, and materials. Individual research and presentation of teaching unit in class. Prerequisite: MUS 341.

MUS 325. Instrumental Music Education
(3). Philosophy and psychology of music education through methods and materials; observation of teachers in the rehearsal, individual research. Prerequisite: suitable conducting and performance skill in piano or instrument. Enrollment is subject to you being fully admitted to the Teacher Preparation Program. If you register and are not admitted, you will be dropped. You will be required to present your orange "Admit to Teacher Preparation Program" card on the first day of your attendance in class.
MUS 326. Music in the Classroom (3). For the general classroom teacher. (Not for music majors or minors.). Techniques used in helping children to develop musically through singing, rhythmic activities, creative activities, listening, and playing instruments. Enrollment is subject to you being fully admitted to the Teacher Preparation Program. If you register and are not admitted, you will be dropped. You will be required to present your orange "Admit to Teacher Preparation Program" card on the first day of your attendance in class.

MUS 329. General Music Methods (4).
Materials, methods, and instructional techniques for general music, grades K-12. Prerequisite: MUS 146. Enrollment is subject to you being fully admitted to the Teacher Preparation Program. If you register and are not admitted, you will be dropped. You will be required to present your orange "Admit to Teacher Preparation Program" card on the first day of your attendance in class.
MUS 330. Literature and Materials for General Music Teaching (2). Covers instructional materials and resources for teaching general music in individual and group settings. Prerequisite: MUS 329.
MUS 331. Literature and Materials for Choral Music Teaching (2). Covers instructional materials and resources for teaching choral/vocal music in individual and group settings. Prerequisites: MUS 323 and MUS 341.
MUS 332. Literature and Materials for Instrumental Music Teaching (2). Covers instructional materials and resources for teaching instrumental music in individual and group settings. Prerequisites: MUS 325 and MUS 341.
MUS 340. Analytical Techniques I (3). Analysis of the structure of tonal music. Prerequisites: MUS 246, 282, and keyboard proficiency requirements.
MUS 341. Conducting I (3). Fundamental principles of baton techniques and practical experience in conducting. Prerequisite: MUS 146. Open to music majors and minors only.
MUS 342. Conducting II (3). A continuation of MUS 341 and conducting literature of junior-senior high school performing groups. Prerequisite: MUS 341.
MUS 343. Counterpoint I (3). Independent melodic line, harmonic background, motive structure, and two-point counterpoint as practiced by the composers of the 18th and 19th centuries. Written exercises and analysis. Prerequisite: MUS 244.
MUS 346. Counterpoint II (3). Three-voice counterpoint, imitation in three voices, the three-voice invention, and the trio sonata Prerequisite: MUS 343.
MUS 347. Electronic Music (2). Study of contemporary technologies and techniques as used to compose music. Prerequisite: MUS 246 or permission of instructor. May be repeated for credit.
MUS 348. Applications of Music Technology for the Professional (3). A course exploring the applications of technology for the music educator, composer, and performer. Includes Web site design, software for teaching, notation, administration, public relations, recording technology, electronic instruments, and electronic composition. Prerequisites: admission to music major or music minor and grade C or higher in MUS 146.

MUS 353. Jazz Improvisation I (1). Beginning basic jazz improvisation techniques for upper-division wind, percussion, guitar, acoustic bass, and keyboard instruments.

Prerequisites: MUS 246, MUS 255, or permission of the instructor.
MUS 354. Jazz Improvisation II (1). Intermediate basic jazz improvisation techniques for upper-division wind, percussion, guitar, acoustic bass, and keyboard instruments. Prerequisite: MUS 353, MUS 246, MUS 255, or permission of the instructor.
MUS 355. Jazz Improvisation III (1). Advanced basic jazz improvisational techniques for upper-division wind instruments, percussion, guitar, acoustic bass, and keyboard instruments. Prerequisites: MUS 246, MUS 255, and MUS 354, or permission of instructor. May be repeated for up to 2 credits.
MUS 356. Jazz Styles (3). A survey of jazz history with regard to evolution of jazz styles. Course activities include analysis, transcription, guided listening, imitative composition, research, and essay writing. Prerequisite: MUS 355 or permission of instructor.
MUS 357. Jazz Composition and Arranging (3). Development of skills in songwriting, melody and chord progression, construction, and arranging in the jazz idiom through student projects and score analysis. Prerequisites: MUS 355 and MUS 356.

MUS 359. Survey of Music in Crosscultural Perspectives (3). An introduction to ethnomusicology: the cultural context of music with emphasis on Africa, Asia, Native North and South America, and Oceania. MUS 359 and ANTH 359 are equivalent courses. Students may not receive credit for both.
MUS 364. Major-applied Area (Individual Instruction) (1,2, or 4). Instruction available in performance areas A-I and K .
MUS 366. Applied Jazz (Individual Instruction) (1). Private study on instruments secondary to a student's major performance area. Intended particularly for advanced students who wish to develop additional skills on an instrument or in voice to enrich their total music background. Instruction available in performance areas A-E, G, and H. Prerequisites: admission to the BA Music Jazz Specialization degree and at least two quarters of study at the MUS 264 applied level. One credit any quarter, may be repeated.
MUS 370. Applied Area (Individual Instruction: Secondary or Major Supplementary) (1). Private study in area secondary to major performance area or supplemental instruction in major performance area. Intended for advanced students who wish to develop additional performance skills to enrich their total music background. Prerequisite: permission of instructor.
MUS 372. Music History to 1600 (2).
Prerequisites: MUS 104 or $304,146,154 \mathrm{~A}$
(Class Piano III or equivalent proficiency).
MUS 373. Music History, 1600 to 1800 (3).
Prerequisites: MUS 244 and 372.

MUS 374. Music History, 1800 to the Present
(4). Prerequisites: MUS 245 and 373.

MUS 379. Philosophy of Music (3). Great music as a source of insights into human beings and the world. MUS 379 and PHIL 379 are equivalent courses. Students may not receive credit for both.
MUS 380. Music History Review (3). A review of the material presented in the required undergraduate music history sequence. Specifically intended for graduate students. The final exam will be equivalent to the graduate music history diagnostic examination. May not be used to satisfy upper-division undergraduate or graduate degree requirements. Required for graduate students not passing Music History diagnostic test. Grade will be S or U .
MUS 382. Survey of Chamber Music (3).
Prerequisite: MUS 372.
MUS 383. Survey of Symphonic Music (3). Prerequisite: MUS 372.
MUS 384. Survey of Choral Music (3). Prerequisite: MUS 372.
MUS 385. Survey of Opera (3). Prerequisite: MUS 372.
MUS 386. Survey of 20th-century Music (3). Prerequisite: MUS 372.
MUS 398. Special Topics (1-6).
MUS 410. Vocal Jazz Choir (1). An ensemble specializing in performance of repertoire from jazz choir tradition established in the Northwest and beyond. By permission of instructor. May be repeated for credit. Must attend all scheduled rehearsals and performances. For juniors and seniors. Limited to SATB singers and rhythm section instruments.
MUS 411. Women's Choir (1).
MUS 413. Flute Choir (1). Previous experience in flute performance and permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For juniors and seniors.
MUS 414. Brass Choir (1). By permission of instructor. May be repeated for credit. For juniors and seniors. See MUS 214 for description.
MUS 415. Chamber Orchestra (1). By permission of instructor. May be repeated for credit. For juniors and seniors. See MUS 215 for description.
MUS 417. Chamber Music Ensemble (1). By permission of instructor. May be repeated for credit. One hour coaching plus two hours rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas $\mathrm{A}, \mathrm{C}-\mathrm{F}, \mathrm{H}$, and L.
MUS 418. Jazz Combo (1). Performance in jazz combos in various configurations.
MUS 420. Composition (3). Prerequisite: a minimum of 6 credits in MUS 320 or permission of the instructor. May be repeated.
MUS 422A. Orchestration (3).
Instrumentation. Prerequisites: MUS 246, 282, and keyboard proficiency requirements.

MUS 424. Jazz Music Education (3). Course is designed to give music educators the tools and knowledge to direct a jazz program in a public school setting. Prerequisite: admittance into the Teacher Preparation Program and completion of two-year theory sequence, or permission of the instructor.
MUS 425. Pedagogy (Studio) (3). Teaching methods and materials. Instruction available in performance areas A-E, G, and H. Prerequisite: permission of instructor.

MUS 425A. Pedagogy (Studio Piano) (3). Teaching methods and materials. Prerequisite: permission of instructor.
MUS 425B. Pedagogy, Vocal (3). Teaching methods and materials. Prerequisite: permission of instructor.
MUS 425H. Pedagogy (Studio Guitar) (3). Teaching methods and materials. Prerequisite: permission of instructor.
MUS 426. Literature (Studio) (3). Literature related to the specific applied area for teaching and performance purposes. Instruction available in performance areas A-E and G. Prerequisite: permission of instructor.
MUS 426A. Literature (Studio Piano) (3). Literature related to the specific applied area for teaching and performance purposes. Prerequisite: permission of instructor.
MUS 426H. Literature (Studio Guitar) (3). Literature related to the specific applied area for teaching and performance purposes. Prerequisite: permission of the instructor.
MUS 428. Men's Choir (1).
MUS 429. Percussion Ensemble (1). By permission of instructor. May be repeated for credit. For juniors and seniors. See MUS 229 for description.
MUS 432. Big Band (1). By permission of instructor. May be repeated for credit. Must attend all scheduled rehearsals and performances. For juniors and seniors. MUS 232 for freshmen and sophomores.
MUS 435. Laboratory Choir (1). By permission of instructor. May be repeated for credit. For juniors and seniors. See MUS 235 for description.
MUS 440. Analytical Techniques II
(3). Emphasis on 20th-century music, including contemporary extrapolations from Schenker's methods, pitch class, and parametric analysis techniques. Prerequisite: MUS 340.
MUS 461. Opera Workshop (1-2). A class leading to the performance of scenes or single acts from opera. May be repeated for credit. By permission of instructor.
MUS 462. Opera Production (1-2). A class leading to performance of a complete opera. MUS 462 and MUS 562 are equivalent courses. May be repeated for credit. By permission of instructor.
MUS 464. Major Applied Area (Individual Instruction) (1, 2 or 4). Instruction available in performance areas A-H and K.
MUS 466. Wind Ensemble (1-2). By
permission of the instructor. May be
repeated for credit. See MUS 266 for description. For juniors and seniors. One credit if offered one term only during summer session.
MUS 467. Choir (1-2). May be repeated for credit. Open to all students by audition. Five hours rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session.
MUS 468. Chamber Choir (2). May be repeated for credit. See MUS 268 for complete description.
MUS 477. Orchestra (1-2). May be repeated for credit. Open to all students proficient on orchestral instruments by permission of director. Five hours of rehearsal per week plus all scheduled rehearsals and performances. One credit if offered one term only during summer session.
MUS 480. Reed Making for Double Reed Instruments (1).
MUS 482. Music Business (3). A survey and overview of the business of music including licensing, copyright, production, management, marketing, and arts administration. Prerequisites: MUS 372 and 10 credits of business requirements or permission of the instructor.
MUS 485. Choral Arranging (3). Course will focus skills needed to write and arrange music junior and senior high school vocal ensembles.
MUS 486. Jazz Band Arranging (3).
Orchestration/arranging techniques in the jazz band idiom, including writing for smaller jazz ensembles, specialized instrumentation, and the big band.
Especially useful for music educators. Prerequisites: MUS 246 and MUS 255 or permission of instructor.
MUS 487. Marching and Concert Band
(2). Fall quarter only. May be repeated for credit. Five hours of rehearsal per week plus all scheduled rehearsals and performances. This band functions as a marching band and is organized into a concert band at completion of the football season. For juniors and seniors.
MUS 488. Symphonic Band (2). Winter and spring quarters only. See MUS 288 for description. May be repeated for credit. For juniors and seniors.
MUS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
MUS 491. Workshop or Clinic (1-6).
MUS 492. Accompanying Practicum (1-3).
May be repeated for credit. By assignment of instructor. Minimum of three hours of rehearsal weekly per credit plus performances. For juniors and seniors.
MUS 495. Senior Project (2). Students are required, as a senior project, to present a recital, composition, or piece of research.

MUS 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
MUS 497. Honors (1-12). Prerequisite: admission to department honors program. MUS 498. Special Topics (1-6).
MUS 499. Seminar (1-5). May be repeated.

## PHILOSOPHY AND

 RELIGIOUS STUDIES DEPARTMENTEllensburg
Language and Literature Bldg., room 337

## 509-963-1818

Fax 509-963-1822
www.cwu.edu/ ~philo/index.html See Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Chenyang Li, PhD

## Professor

Chenyang Li, PhD, Asian philosophy, comparative philosophy, ethics, social and political philosophy

## Associate Professors

Cynthia Coe, PhD, 20th-century continental philosophy, feminist philosophy, director of women's studies
Jeffrey Dippmann, PhD, world religions, Chinese Buddhism and Daoism
Heidi Szpek, PhD, Hebrew Bible, Western religious traditions, Judaism, Holocaust studies, ancient Near Eastern languages, literature and culture

## Assistant Professors

Matthew Altman, PhD, early modern philosophy (Kant), 19th-century philosophy, ethics and applied ethics, social and political philosophy, philosophy of art, director William O. Douglas Honors College
Gary Bartlett, PhD, philosophy of mind, cognitive science, epistemology
Alain Beauclair, PhD, ethics, American
philosophy, ancient philosophy, hermeneutics, and philosophy of art

## Senior Lecturer

Karen Turcotte, MA, comparative religions, religion of India, philosophies of India

## Lecturers

Gayle Dohrman, MA, history of philosophy, ancient philosophy (Plato), metaphysics, ethics, mysticism
Helen Harrison, MA, philosophy / religion in antiquity, contemporary religious movements, philosophy/religion and science, philosophy/religion and literature

John Messerly, PhD, ethics philosophy of technology, philosophy of biology
David Newcomer, MDiv, Christianity, ethics
Emeritus Professors
Jay E. Bachrach, PhD
Peter M. Burkholder, PhD
Raeburne S. Heimbeck, PhD
Webster F. Hood, PhD
Chester Z. Keller, PhD
John Utzinger, PhD
Staff
Jan Farrell, secretary senior

## Department Information

The original meaning of the word philosophy is "the love of wisdom." Philosophy therefore represents an ongoing process of critical and speculative inquiry into questions representing people's deepest concerns, such as the meaning of existence, the nature of reality, and the grounds of human conduct. The religious studies specialization is a path of inquiry into the nature of religion, its pervasive role in human life, and its contribution to understanding human existence and destiny.

## Bachelor of Arts Philosophy Major (45-60 Credits) (60 Credits)

Students may choose either a 45-credit major or a 60-credit major. In order to graduate, a student who completes the 45 -credit major must also have a minor or second major in another discipline. A student who completes the 60-credit major is not required to have a minor or second major.

## Required Courses

PHIL 201 - Introduction to Logic . . . . . . . . . . 5
PHIL 302 - Ethics . . . . . . . . . . . . . . . . . . . . . . . . 5
PHIL 352 - Western Philosophy I . . . . . . . . . . 5
PHIL 353 - Western Philosophy II . . . . . . . . . . 5
PHIL 354 - Western Philosophy III ......... 5
PHIL 355 - Contemporary Thought . . . . . . . . . 5
PHIL 488 - Senior Seminar . . . . . . . . . . . . . . . 5
PHIL 494 - Undergraduate Thesis
Preparation
PHIL 495 - Undergraduate Thesis . . . . . . . . . 3
Philosophy electives . . . . . . . . . . . . . . . . . 5-20
Select from all other PHIL courses
45-59 credit major (5-19)
60 credit major (20)
Total Credits: 45-60

## Religious Studies Specialization (50-59 Credits) <br> (60 Credits)

The religious studies specialization is comparative in nature, but complemented by a philosophical component focused on religion and unique electives designed to
accommodate student interests. Students may choose either a 50 - or 60 -credit specialization. A student who completes the 60-credit major is not required to have a minor or second major.

## Required Courses

PHIL 305 - Philosophy of Religion ........ . 5
RELS 101 - Introduction to Religion . . . . . . . 5
RELS 201 - Sacred Books of the World . . . . . 5
RELS 351 - Religions of China and Japan . . . 5
OR
RELS 352 - Religions of India (5)
RELS 353 - History of Judaism and Islam . . . 5 OR
RELS 354 - History of Christianity (5)
RELS 488 - Senior Seminar
Select from the following. . . . . . . . . . . . . . . 10
*PHIL 310 - Philosophies of India (5)
*PHIL 351 - Medieval Philosophy (5)
*PHIL 376 - Contemporary Religious Thought (5)
*PHIL 445 - Chinese Philosophy (5)
**Electives. . . . . . . . . . . . . . . . . . . . . . . . . .10-20
50-59 credit specialization (10-19)
60 credit specialization (20)
Total Credits: 50-60
*PHIL courses used here cannot be used to fulfill requirements for the major or minor in Philosophy.
**Electives may be selected from any upperdivision religious studies course or the following philosophy courses (PHIL 310, PHIL 351, PHIL 376, PHIL 378, PHIL 445). Students may strengthen their preparation by taking additional upper-division courses from anthropology, art, English, history, music, philosophy, political science, or sociology.

## Ethics Minor

A minor in ethics enables students to develop a strong sense of moral responsibility and critical skills for moral reflection. It consists of required courses in ethical theory, global ethics, current ethical issues, as well as electives in applied ethics - such as business ethics and communication ethics - which may relate to students' majors. It also includes an internship experience to help students develop their ethical ability and awareness through service learning. Such a minor can be combined with, and serve as enrichment to, any major program.

## Required Courses

PHIL: 302 - Ethics
PHIL 490 - Coop
perative Education. . . . . . . . . . . 3
Select from the following . . . . . . . . . . . . . . . . . 5
PHIL 202 - Introduction to Ethics (5)
PHIL 210 - Current Ethical Issues (5)
Upper-division Electives $\qquad$ At least one course must be in Philosophy

## COM 333 - Communication Ethics (3)

IT 301 - Information Technology Security, Privacy, and Ethics (3)

LAJ 401 - Ethics, Diversity, and Conflict in Criminal Justics (4)
For LAJ majors only.
MSL 302 - Leadership and Ethics (3)
For Military Science majors only
PHIL 304 - Business Ethics (5)
PHIL 306 - Environmental Ethics (5)
PHIL 402 - Ethics and Film (5)
PHIL 465 - Advanced Ethics (5)
OR
Other Ethics-related courses as approved by minor advisor.

Total Credits: 26-28

## Philosophy Minor

## Required Courses

PHIL 101 - Introduction to Philosophy . . . . . 5
PHIL 201 - Introduction to Logic . . . . . . . . . . 5
*Philosophy electives . . . . . . . . . . . . . . . . 10-18
Total Credits: 20-28
*Select from PHIL courses; at least 10 credits at 300 level or above.

## Religious Studies Minor

## Required Courses

RELS 101 - Introduction to Religion ....... . . 5
Select from the following. . . . . . . . . . . . . . . . 5
PHIL 305 - Philosophy of Religion (5)
PHIL 376 - Contemporary Religious Thought (5)
RELS 201 - Sacred Books of the World (5)
Select from the following $\qquad$

RELS 352 - Religions of India (5)
RELS 353 - History of Judaism and Islam (5)

RELS 354 - History of Christianity (5)
Select Either . . . . . . . . . . . . . . . . .
*RELS Upper-division Electives OR
PHIL 305 - Philosophy of Religion (5)
PHIL 310 - Philosophies of India (5)
PHIL 351 - Medieval Philosophy (5) PHIL 376 - Contemporary Religious Thought (5)
PHIL 378 - Philosophy of Love (5)
PHIL 445 - Chinese Philosophy (5)
Total Credits: 20
*PHIL courses cannot be used here if used to fulfill requirements for the major or minor in Philosophy.

## Philosophy Courses

Some advanced philosophy courses are seldom offered except by arrangement.
PHIL 101. Introduction to Philosophy (5). Introduction to the basic themes, thinkers, and topics of philosophy. The mind-body problem, good versus evil, knowledge, truth, goodness, and beauty.
PHIL 115. The Meaning of Life (5). Original sources from diverse philosophical traditions explore various responses to the question of the meaning of life, considering
the most significant human aspirations and values.
PHIL 201. Introduction to Logic (5). Formal principles, methods and techniques for analyzing, constructing, and evaluating arguments. Topics include validity, soundness, truth tables, Venn diagrams, syllogisms, and logical symbolism.
PHIL 202. Introduction to Ethics (5). Examine some main traditions of ethics, such as Christian ethics, Buddhist ethics, Confucian ethics, ethical absolutism and relativism, utilitarianism, deontology, and feminist ethics.
PHIL 209. Introduction to Asian Philosophy
(5). Examination of important problems and classical texts in Indian, Chinese, and Japanese philosophy.
PHIL 210. Current Ethical Issues (5). Contemporary ethical theories from diverse traditions applied to current ethical problems. Recent ethical approaches to euthanasia, abortion, capital punishment, affirmative action, and environmental concerns.
PHIL 298. Special Topics (1-6).
PHIL 299. Seminar (1-5).
PHIL 302. Ethics (5). Man as moral agent; nature of moral decision; ethical theories; their relevance to moral practice.
PHIL 303. Aesthetics (5). Aesthetic object and its qualities, the aesthetic experience, and evaluation of works of art.
PHIL 304. Business Ethics (5). Ethical problems that arise in contemporary business practices and the relevance of recent ethical theory to these problems.
PHIL 305. Philosophy of Religion (5).
Fundamental assumptions and issues in religious activity and thought; types of religious philosophy.
PHIL 306. Environmental Ethics (5).
An examination of various positions on the human relationship with the natural environment, from ancient and contemporary, western and non-western, as well as interdisciplinary perspectives.
PHIL 308. Medical Ethics (5). Explores ethical issues arising in a medical context, such as the allocation of scarce medical resources and health care, patient confidentiality, advance directives, human experimentation, and physician-assisted suicide.
PHIL 310. Philosophies of India (5).
PHIL 312. Applied Logic (5). Principles of sound reasoning in practical human situations.
PHIL 325. Women and Philosophy (5). An examination of what the history of philosophy has claimed about the significance of gender with particular attention to the characterization of women in those texts and the impact of this history on contemporary thought.
PHIL 348. Social and Political Philosophy (5). An examination of the philosophical foundations of major modern social and political systems such as classical conservatism, liberalism, socialism, fascism, and anarchism.

PHIL 351. Medieval Philosophy (5). Latin, Arabic, and Jewish traditions.
PHIL 352. Western Philosophy I (5). Origins through Plato, Aristotle, and Plotinus.
PHIL 353. Western Philosophy II (5). A study of some of the influential philosophies of the 17th and 18th centuries; Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.
PHIL 354. Western Philosophy III (5). Nineteenth and early 20th century. Hegel, Schopenhauer, Mill, Marx, Nietzsche, Kierkegaard, and Bergson.
PHIL 355. Contemporary Thought (5). Twentieth century; James, Russell, Whitehead, Dewey, Ayer, Sartre, and Jaspers.
PHIL 356. American Philosophy (5). Colonial period to the present.
PHIL 357. Race, Class, and Gender in American Philosophy (5). An examination of historical and contemporary American writings that address race, ethnicity, class, gender, and sexual orientation from philosophical perspectives, emphasizing material usually excluded from the accepted philosophical canon.
PHIL 358. Existentialism (5). Kierkegaard, Nietzsche, Marcel, Heidegger, Jaspers, and Sartre.
PHIL 359. Mysticism (5). An analysis of the strange and the uncanny in human experience, and of the attendant claims regarding the transcendent implications of these phenomena.
PHIL 376. Contemporary Religious
Thought (5). An examination of recent and contemporary writings, which reflect the "religious condition" in contemporary western culture. Readings will be chosen from such writers as Nietzsche, Kierkegaard, Freud, Marx, Sartre, Marcel, Buber, Bonhoeffer, Maritain, Dewey, the Niebuhrs, Tillich, Whitehead, and Teilhard de Chardin.
PHIL 378. Philosophy of Love (5). A study of various concepts of love as they occur in philosophy, literature, and other cultural expressions. The nature of romantic love, eros, agape, friendship, and fellow feeling will be discussed.
PHIL 379. Philosophy of Music (3). Great music as a source of insights into human beings and the world. PHIL 379 and MUS 379 are equivalent courses. Students may not receive credit for both.
PHIL 398. Special Topics (1-6).
PHIL 402. Ethics and Film (5). An examination of ethical theories and themes in film, including the ethics of filmmaking. Films will be selected from a wide range of possibilities, including foreign productions.
PHIL 420. Kant (5).
PHIL 445. Chinese Philosophy (5). Selected philosophical topics in classical Chinese literature.
PHIL 461. Theory of Knowledge (5).
Evidence, perception, and the physical world, apriori knowledge, meaning, the analytic-synthetic distinction, and theories of truth.

PHIL 463. Philosophy of Mind (5).
Philosophical implications of recent approaches to mind.
PHIL 465. Advanced Ethics (5). Contemporary ethical theory. Ethical disagreement, moral truth, value concepts, moral reasoning, normative sentences.
PHIL 480. Philosophy of Science (5). A critical study of the aims, structure, and methodology of the sciences. Explanation, prediction, reduction, theories, laws, and confirmation.
PHIL 488. Senior Seminar (5). Intensive study of selected philosophical theories, movements, or figures. Prerequisite: Philosophy major with senior or junior standing or permission of the instructor. May be repeated for credits under a different subtitle.
PHIL 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
PHIL 494. Undergraduate Thesis Preparation
(2). Prerequisites: advanced standing and permission of instructor. Grade will be $S$ or U.
PHIL 495. Undergraduate Thesis (3). Complete thesis as part of major graduation requirements. Prerequisites: 494, junior/ senior standing, and permission of instructor.
PHIL 496. Individual Study (1-6). Prerequisite: GPA of 3.0 in philosophy and a cumulative GPA of 3.0, plus approval of the instructor and chair of the department.
PHIL 498. Special Topics (1-6).
PHIL 499. Seminar (5). A seminar on a selected topic or figure. Prerequisites: junior/senior standing or permission of instructor.

## Religious Studies Courses

RELS 101. Introduction to Religion (5). Religions of humanity through the ages. Beliefs, practices, symbols, and institutions. Human experiences and needs from which religions arise.
RELS 201. Sacred Books of the World (5). Comparative study of religious thought and literature from eastern and western classics: Upanishads, Bhagavad-Gita, Dhammapada, Tao Te Ching, Hebrew Bible, New Testament, Koran.
RELS 301. Man in Religious Thought (5). Human existence as perceived by religious thinkers, both classical and contemporary, in the Judaic, Christian, Hindu, Buddhist, Taoist, and Confucian traditions.
RELS 320. American Indian Spirituality (5). Introduction to American Indian spirituality with emphasis on myths, rituals, and beliefs and including historical, economic, political,
and legal issues that influence the ways of American Indian spiritual practice: Ghost Dance, Native American Church, etc.
RELS 351. Religions of China and Japan (5). Historical development of Daoism, Confucianism, Shinto, and East Asian Buddhism within China and Japan, from their origins to the present. Analysis of beliefs, practices, symbols, and institutions.
RELS 352. Religions of India (5). Historical development of Hinduism, Buddhism, Sikhism, and Jainism within India, from their origins to the present. Analysis of beliefs, practices, symbols, and institutions.
RELS 353. History of Judaism and Islam (5). Historical development of Judaism and Islam, from their origins to the present. Analysis of their beliefs, practices, symbols, institutions, and interaction with one another. Prerequisites: RELS 101 or RELS 201; or consent of instructor.
RELS 354. History of Christianity (5). Historical development of Christianity, from its origins to the present. Analysis of beliefs, practices, symbols, and institutions. Prerequisite: RELS 101 or RELS 201 or consent of instructor.
RELS 363. Yoga (5). History, philosophy, and psychology of Yoga in India, China, and America. Postures, breathing, meditation, and parallel western techniques.
RELS 398. Special Topics (1-6).
RELS 401. Daoist Tradition (5). An examination of the textual and cultural tradition associated with Daoism, China's indigenous high religion.
RELS 402. Religion and Film (5). An examination of religious themes in film, including the portrayal of specific religious traditions and sacred narratives. Films will be selected from a wide range of possibilities, including foreign productions.
RELS 410. The Legacy of the Hebrew Bible (5). A multi-disciplinary exploration of the Hebrew Bible; seeking to understand both the Bible's influence on and perception in a variety of disciplines (e.g., art, literature, music, film). Prerequisites: RELS 201 or RELS 353 or consent of instructor.
RELS 411. Lost Books of the Bible (5). An examination of the origin, content, and ideology of Jewish Hellenistic and Intertestamental literature excluded in the canons of the Hebrew Bible/Old Testament or New Testament. Prerequisites: RELS 201, or RELS 353, or RELS 410, or permission of the instructor.
RELS 453. The Holocaust-A Quest for Meaning (5). Explores the historical, religious, and philosophical dimensions of the Holocaust experience, drawing on Holocaust and post-Holocaust expression (survivor memoirs, literature, art, music). Prerequisites: RELS 101, or RELS 353, or consent of the instructor.
RELS 488. Senior Seminar (5).
RELS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual
arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
RELS 491. Workshop (1-6). Task-oriented approach to special topics.
RELS 496. Individual Study (1-6).
Prerequisite: GPA of 3.0 and / or approval of the instructor and program director.
RELS 498. Special Topics (1-6).
RELS 499. Seminar (3-5).

## THEATRE ARTS DEPARTMENT

Ellensburg
McConnell Hall, room 102
509-963-1750
Fax: 509-963-1767
www.cwu.edu / ~theatre
See Web site for how theatre arts could be used for educational and career purposes.

## Faculty and Staff

Chair
Scott R. Robinson, MFA

## Professors

Brenda Hubbard, MFA, performance head, acting, directing, literature
Scott R. Robinson, MFA, resident costume designer
Michael J. Smith, MFA, acting, directing, voice, literature, musical theatre

## Associate Professor

Christina Barrigan, MFA, design head, resident lighting designer
George W. Bellah, 3rd, MFA, movement, stage combat, acting, Asian drama

## Assistant Professors

David Brown, MM, musical directory, music theory
Terri Brown, PhD, music theatre head, history
Elise Forier, MFA, theatre education, youth theatre, playwriting
Marc Hanjuk, MFA, resident scenic designer
Nadine Pederson, PhD, graduate coordinator, history, literature

## Lecturers

David Barnett, MFA, technology
Leslee Caul, BA, management
Jerald Dougherty, MFA, production management
Keith Edie, MFA, performance
M. Catherine McMillen, BA, wigs and makeup

## Staff

David Barnett, McConnell stage manager / technical director
Leslee Caul, director of marketing and development

Mary Makins, senior department secretary
M. Catherine McMillen, costume shop supervisor
Linda Waters, fiscal technician II

## Department Information

The Department of Theatre Arts offers comprehensive study in the varied facets of theatre arts as they relate to theatre production. Coursework prepares students for rigorous and rewarding work within Central Theatre Ensemble (CTE), the production arm of the program. Based on a professional model of theatre, CTE offers students the opportunity to thrive in all aspects of theatre production in a safe and mentoring environment, working in state-of-the-art venues supported by fully equipped shops.

## Admission Requirements

Required 2.0 GPA for all incoming theatre arts majors. Audition and/or interview required for entrance into BFA programs. Entrance exam administered prior to admission to major.

## Exit Requirements

Exam administered in the senior year. All majors must have a final accumulated GPA of 2.5 in theatre arts.

## Extracurricular Activity

Majors are required to participate in production each quarter, as outlined in the department handbook. Some evening and weekend requirements related to production.

## Program Certifications Endorsement in Theatre Education (K-12)

A comprehensive and thoughtful course of study will prepare the teachers of tomorrow, through course and production work, for successful careers in the classrooms and on the stages of middle and high schools. Under the direction of our highly trained faculty, you will maneuver a carefully planned curriculum conforming to all state education and National Council for Accreditation of Teacher Education (NCATE) certification standards.

## Special Requirements

Student teaching required in senior year for endorsement. Additional minor endorsement recommended. Completion of a "LiveText" portfolio required. Successful completion of the WEST-E examination is required for state endorsement.

## Financial Obligations and Required Extracurricular Costs

All performance and musical theatre majors are required to have character and dance shoes, and makeup kits.

Design majors should have basic drafting and art supplies.

## Equipment, Technology, Software Purchase Requirement

LiveText software required for theatre education majors.

Associated fees required in several courses where students create and keep projects. Course fees are noted in the course list.

## Theatre Arts Major, BFA and BA

Students seeking either a BFA or BA degree must complete one year college/ university study or two years high school study of a single foreign language to meet CWU graduation requirement.

The Department of Theatre Arts offers students a variety of emphasis areas to choose from to ensure that each participant receives specialized attention in the theatre discipline of their choice. By focusing on an emphasis, students can build skills and acquire the training to build strong resumes and portfolios in order to pursue professional jobs or advanced degrees.

All students complete a common core of foundation courses and choose to complete the BA in general studies or audition into an emphasis area in the BFA.

## Theatre Arts Core Requirements

TH 107 - Introduction to Theatre . . . . . . . . . . 4
TH 166 - Theory of Play Production . . . . . . . 3
TH 244 - Basic Acting I . . . . . . . . . . . . . . . . . . 3
TH 261 - Costume Technology . . . . . . . . . . . . 3
TH 267 - Scene Technology . . . . . . . . . . . . . . . 3
TH 268 - Lighting Technology . . . . . . . . . . . 3
TH 363, 364, 365 - Theatre History I, II, III . 12
Lab Component
Complete the following . 4
Three credits of
TH 393 - Theatre Laboratory (1)
One credit of
TH 493 - Theatre Laboratory (1)
Production Component
Choose one of the following $\qquad$
TH 301 - Production Application (3)
TH 401 - Production Application (3)
Theatre Arts Core Total Credits: 38

## Bachelor of Arts Theatre General Studies

A perfect choice for the theatre artist, general studies allows for advanced study in a variety of areas allowing students to become the kind of well-rounded theatre artist who can go on to a focused study in graduate school or a variety of careers in the field. The general studies degree is also a great choice for the student who has a number of interests and needs the flexibility to explore several options.

## Required Courses

Theatre Arts Core Requirements. . . . . . . . . . 38
TH 495 - Senior Research Project . . . . . . . . . . 3
Leadership Component
Choose either of the following . . . . . . . . . . . 3
TH 329 - Directing I (3)
TH 360 - Stage Management (3)
Literature Component
Choose any the following for a total of eight credits.
TH 375 - Asian Drama (4)
ENG/TH 381 - British Drama (4)
ENG 361 - Shakespeare: The Earlier Plays (4)
ENG 362 - Shakespeare: The Later Plays (4)
TH 377 - Staging Gender (4)
TH 382 - Ethnic Drama (4)
TH 383 - Contemporary World Drama (4)
Additional Lab Component
Complete two credits of the following .... 2
TH 493 - Theatre Laboratory (1)
Additional Production Component
Complete any of the following for a total of 12 credits
TH 201 - Dance Production Application (1-3)
TH 202 - Studio Performance (1-3)
TH 301 - Production Application (3)
TH 302 - Performance Application (3)
TH 303 - Management Application (3)
TH 332 - New Play Production (2)
TH 401 - Production Application (3)
TH 402 - Performance Application (3)
TH 403 - Management Application (3)

## Elective Component

Theatre Elective (any TH course
as approved by advisor)
Total Credits: 75

## Bachelor of Fine Arts <br> Theatre

The BFA program is designed to prepare knowledgeable, skilled graduates who will compete at all levels in an increasingly competitive field. Students will also learn to assess, explain, and interpret the many roles and responsibilities inherent in the world of the professional theatre artist. They will also understand how to use the skills they have developed in other career paths related to their degree.

The BFA theatre program is innovative and interdisciplinary. Students complete a sequence of core foundation courses, gain admission into the program through audition/interview, and focus in a single emphasis-performance, design/technology, or musical theatre.

Interdisciplinary course work is integral to the structure and success of the BFA theatre program. All of the required and elective courses for the degree are part of other major programs and are regularly taught. Besides the theatre arts courses, 29
interdisciplinary courses are offered by two colleges from seven other CWU departments: art, communications, dance, english, physical education, family and consumer sciences, industrial engineering, and music.

BFA - theatre students are required to complete the general education requirements established by the university.

## Performance Specialization

The performance specialization builds specific skills in production from a strong foundation of using the body as the artist's instrument through acting styles, voice, and stage movement. Students choose from a range of courses, both introductory and advanced, from writing and dancing, to stage and screen.

To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490: Cooperative Education (Internship), as well as the production application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

## Required Courses

Theatre Arts Core Requirements . . . . . . . . . 38
TH 245 - Basic Acting II . . . . . . . . . . . . . . . . . . 3
TH 246 - Basic Acting III . . . . . . . . . . . . . . . . . 3
TH 248 - Vocal Conditioning for the Actor (1) .3

May be repeated
TH 329 - Directing I . . . . . . . . . . . . . . . . . . . . . . 3
TH 342 - Stage Voice . . . . . . . . . . . . . . . . . . . . . 3
TH 344 - Intermediate Acting I . . . . . . . . . . . . . 3
TH 345 - Intermediate Acting II . . . . . . . . . . . 3
TH 444 - Acting Styles . . . . . . . . . . . . . . . . . . . . 4
TH 445 - Audition Techniques. . . . . . . . . . . . . 3
TH 475 - Acting for Film and Television . . . . 4
Literature Component
Choose any of the following for a total of eight credits
TH 375 - Asian Drama (4)
TH 377 - Staging Gender (4)
TH/ENG 381 - British Drama (4)
TH 382 - Ethnic Drama (4)
TH 383 - Contemporary World Drama (4)
ENG 361 - Shakespeare: Earlier Plays (4)
ENG 362 - Shakespeare: Later Plays (4)
Performance Component
Choose any of the following for a total
of 15 credits . . . . . . . . . . . . . . . . . . .
*TH 202 - Performance Studio (1-3)
*TH 302 - Performance Application (3)
*TH 402 - Performance Application (3) *May be repeated
Stage Movement Component
Choose any of the following for a total
of 10 credits $\qquad$
$\qquad$
TH 312 - Creative Dramatics in School and Leisure (3)
TH 333 - Stage Combat (3)
TH 335 - Movement for the Actor (3)
PED 101 - Modern Dance I (2)

PED 102 - Modern Dance II (2)
PED 104 - Ballet I (Level 1) (1)
PED 121 - Tap Dance I (1)
PED 141 - Jazz Dance I (1)
PED 142 - Jazz Dance II (1)
PED 204 - Ballet II (Level 1) (2)
PEID 120 - Beginning Fencing (1)
PEID 121 - Intermediate Fencing (1)
PEID 145 - Beginning Circus Acts (1)
Special Skills Component
Choose any of the following for a total of 7 credits
TH 202 - Performance Studio (1-3)
TH 243 - Singing for Actors (1)
TH 270 - Stage Makeup (3)
TH 302/402 - Performance Application (3)
TH 332 - New Play Production (2)
TH 433 - Advanced Stage Combat (3)
TH 435 - Period Movement for the Actor (3)
TH 444 - Acting Styles (if content changes) (4)
TH 481 - Kennedy Center Festival (1-2)
TH 490 - Cooperative Education (1-12)
TH 492 - Producing and Touring Theatre (1-12)
COM 342 - Broadcast News Producing and Reporting (4)
MUS 164 - Voice (1)
Total Performance Specialization Credits: 72 Total Credits: 110

## Design/Technical Specialization

The design / technical specialization builds specific skills in production from a strong foundation of general knowledge of technical theatre and the design aspect of theatre. Students choose from a range of courses, both introductory and advanced from writing and drawing, construction, and sewing.

To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490 - Cooperative Education (internship) as well as the production application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

## Required Courses

Theatre Arts Core Requirements. . . . . . . . . . 38
TH 266 - Theatre Drafting . . . . . . . . . . . . . . . . 3
TH 340 - Introduction to Theatre Design ... 3
TH 360 - Stage Management . . . . . . . . . . . . . . 3
TH 366 - Theatre Rendering . . . . . . . . . . . . . . . 3
TH 489 - Career and Portfolio Preparation . . 3
TH 495 - Senior Research Project . . . . . . . . . . 3
Literature Component
Choose any of the following for a total of eight credits
. 8
TH 375 - Asian Drama (4)
TH 377 - Staging Gender (4)
TH/ENG 381 - British Drama (4)
TH 382 - Ethnic Drama (4)

TH 383 - Contemporary World Drama (4)
ENG 361 - Shakespeare: Earlier Plays (4)
ENG 362 - Shakespeare: Later Plays (4)

## Production Component

Choose any of the following for a
total of 15 credits
TH 201 - Dance Production
Application (1-3
TH 301 - Production Application (3)
TH 303 - Management Application (3)
TH 393 - Theatre Laboratory (1)
TH 401 - Production Application (3)
TH 402 - Performance Application (3)
TH 403 - Management Application (3)
TH 440 - Advanced Design Problems (3)
TH 492 - Practicum in Producing and Touring Theatre (1-12)
TH 493 - Theatre Laboratory (1)
Drawing Component
Choose from the following for a
total of three credits
TH 465 - Costume and Fashion Drawing (3)
ART 150 - Drawing I (5)
Skills Component
Choose from the following for a
total of 10 credits
TH 270 - Stage Makeup (3)
TH 353 - Stage Properties (3)
TH 354 - Scene Painting (3)
TH 356 - Stage Sound (3)
TH 384 - Puppetry (3)
FCSA 355 - Consumer Textiles (4)
IET 160 - Computer Aided Design and Drafting (4)
IET 161 - Architectural Computer Aided Drafting (3)

History Component
Choose any of the following for a
total of eight credits
TH/FCSA 452 - History of Fashion (4)
FCSH 366 - History of Housing and Furniture I (3)
FCSH 465 - History of Housing and Furniture II (3)
ART 235 - Ancient and Medieval Art (4)
ART 236 - Renaissance Through mid 19th Century Art (4)
ART 237 - Impressionism Through PostModern (4)
ART 357 - African and Oceanic Art (4)
Advanced Technical Component
Choose from the following for a total of six credits.

6
TH 361 - Stage Costuming (3)
TH 367 - Stage Scenery (3)
TH 368 - Stage Lighting (3)
Advanced Design Component
Choose from the following for a total of four credits
.4
TH 461 - Costume Design (4)
TH 467 - Scene Design (4)
TH 468 - Lighting Design (4)

## Total Design/Technical Credits: 72

Total Credits: 110

## Musical Theatre Specialization

The musical theatre specialization builds specific skills in production from a strong foundation of using the body as the artist's instrument through singing, voice, and stage movement in the musical theatre style. Students choose from a range of courses, both introductory and advanced, from writing and movement, dancing, and voice.

To help students prepare for future employment or graduate school, all students are strongly encouraged to pursue practical experience through TH 490 - Cooperative Education internship as well as the performance application courses, designed to put theory into practice as part of Central Theatre Ensemble's regular on-campus season.

## Required Courses

Theatre Arts Core Requirements . . . . . . . . . 38
TH 215 - Music Fundamentals for
Musical Theatre . . . . . . . . . . . . . . . . . . . . 3
TH 216 - Music Fundamentals for
Musical Theatre II . . . . . . . . . . . . . . . . . . . . 3
TH 217 - Music Fundamentals for
Musical Theatre III .3
TH 243 - Singing for Actors (1) . . . . . . . . . . . 6
May be repeated
TH 245 - Basic Acting II . . . . . . . . . . . . . . . . . . 3
TH 329 - Directing I. . . . . . . . . . . . . . . . . . . . . . 3
TH 343 - Singing for Actors II (1) . . . . . . . . . . 3
TH 344 - Intermediate Acting I . . . . . . . . . . . . . 3
TH 415 - Musical Theatre History and Literature I .3
TH 416 - Musical Theatre History and Literature II 3
TH 417 - Musical Theatre History and
Literature III.
.3
TH 443 - Singing for Actors III (1) . . . . . . . . . 4
MUS 154 - Class Piano (1) . . . . . . . . . . . . . . . . 3
Literature Component
Choose any of the following for a total
of four credits $\qquad$4

TH 375 - Asian Drama (4)
TH 377 - Staging Gender (4)
TH 382 - Ethnic Drama (4)
TH 383 - Contemporary World Drama (4)
Movement Component
Choose any of the following for a total
of 12 credits $\qquad$
TH 248 - Vocal Conditioning for the Actor (1) May be repeated
TH 312 - Creative Dramatics in School and Leisure (3)
TH 352 - Stage Dance (3)
TH 335 - Movement for the Actor (3)
PED 101 - Modern Dance I (2)
PED 102 - Modern Dance II (2)
PED 104 - Ballet I (Level 1) (1)
PED 121 - Tap Dance I (1)
PED 141 - Jazz Dance I (1)
PED 142 - Jazz Dance II (1)
PED 204 - Ballet II (Level 1) (2)
PEID 120 - Beginning Fencing (1)
PEID 145 - Beginning Circus Acts (1)

Performance Component
Choose any of the following for a total of 13 credits 13
TH 202 - Performance Studio (1-3)
TH 302 - Performance Application (3)
TH 402 - Performance Application (3)
TH 332 - New Play Production (2)
TH 345 - Intermediate Acting II (3)
TH 444 - Acting Styles (4)
TH 490 - Cooperative Education (1-12)
Total Musical Theatre Credits: 72
Total Credits: 110

## Bachelor of Arts <br> Theatre Arts: Teaching K-12

This major satisfies the endorsement for drama. A student should have a minor leading to endorsement in arts or music. Also, see university English language requirements for teacher certification. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

## Required Courses

TH 107 - Introduction to Theatre . . . . . . . . . . 4
TH 166 - Theory of Play Production . . . . . . . 3
TH 207 - Introduction to Children's Drama . 3
TH 244 - Basic Acting I . . . . . . . . . . . . . . . . . . 3
TH 245 - Basic Acting II . . . . . . . . . . . . . . . . . . 3
TH 261 - Costume Technology . . . . . . . . . . . . 3
TH 267 - Scene Technology . . . . . . . . . . . . . . . 3
TH 268 - Lighting Technology . . . . . . . . . . . . 3
TH 270 - Stage Makeup . . . . . . . . . . . . . . . . . . 3
TH 312 - Creative Dramatics in School
and Leisure . . . . . . . . . . . . . . . . . . . . . . 3
TH 313 - Writing for Children's Theatre . . . . 3
TH 329 - Directing I . . . . . . . . . . . . . . . . . . . . . . 3
TH 367 - Stage Scenery . . . . . . . . . . . . . . . . . . 3
TH 420 - Drama in the Schools K-12 . . . . . . . 5
TH 429 - Directing II . . . . . . . . . . . . . . . . . . . . 3
Voice Component
Choose any of the following:
TH 246 - Basic Acting III (3)
TH 243 - Singing for Actors I (1) May be repeated
TH 343 - Singing for Actors II (1) May be repeated

## Design Component

Choose any of the following: . . . . . . . . . . . . 3
TH 340 - Introduction to Theatre Design (3)
TH 413 - Producing Children's Theatre (3)
History Component
Choose any of the following: . . . . . . . . . . . . 4
TH 363 - Theatre History I (4)
TH 364 - Theatre History II (4)
TH 365 - Theatre History III (4)

## Literature Component

Choose any of the following: . 4
TH 375 Asian Drama (4)
TH 377 - Staging Gender (4)
TH 382 - Ethnic Drama (4)
TH 383 - Contemporary World Drama (4)

Theatre Lab Component
Choose either of the following . . . . . . . . . . . 3
TH 393 - Theatre Laboratory (1)
TH 493 - Theatre Laboratory (1)
Theatre Production Component
Choose any of the following: .............. 3
TH 301 - Production Application (3)
TH 302 - Performance Application (3)
TH 303 - Management Application (3)
TH 401 - Production Application (3)
TH 402 - Performance Application (3)
TH 403 - Management Application (3)
TH 492 - Practicum in Producing and Touring Theatre ( $3,6,12$ )
Live Text Portfolio Component
TH 295 - Theatre Education Portfolio (1)
Total Credits: 71

## Apparel Design Minor

A minor in apparel design is administered jointly by the Fashion Merchandising program and theatre arts department. It is designed to enable students with career interests in this field to gain experience in the competency areas expected of apparel designers. This minor allows the student to learn to apply the basic principles of design and creativity in developing apparel. Students will study the application of artistic and creative design elements, selection, and use of fabrics and textiles, and the techniques for transforming design concepts into garments in order to create a final saleable product for a target market.

## Required Courses

FCSA 280 - Basic Sewing Techniques . . . . . . . 3 OR
TH 261 - Costume Technology (3)
FCSA 301 - Principles of Fashion
Merchandising. . . . . . . . . . . . . . . . . . . . . . . 4
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSA 389 - Fashion Trend Analysis . . . . . . . . 3
FCSA 388 - Apparel Construction II. . . . . . . . . 3
OR
TH 361 - Stage Costuming (3)
FCSA 488 - Fashion Line Development . . . . . 3
TH 340 - Introduction to Theatre Design. . . . 3
TH 461 - Costume Design . . . . . . . . . . . . . . . . 4
TH 465 - Costume and Fashion Drawing . . . 3
Total Credits: 30

## Musical Theatre Minor for Theatre Educators

This minor is designed for the theatre major who aspires to an advanced study leading to a career in the musical theatre genre. Must be combined with a BA theatre education teaching K-12 degree major.

## Required Core

TH 215 - Music Fundamentals for Musical Theatre I .3

TH 216 - Music Fundamentals for Musical Theatre II .3
TH 217 - Music Fundamentals for Musical Theatre III
entals for ..... 3
TH 415 - Musical Theatre History and
Literature I ..... 3
TH 416 - Musical Theatre History and Literature II ..... 3
TH 417 - Musical Theatre History and Literature IIIVoice-related electivesChoose any of the following for atotal of 3 credits3
TH 243 - Singing for Actors (1)
TH 343 - Singing for Actors II (1)TH 443 - Singing for Actors III (1)
Movement-related electives
Choose any of the following for
a total of 9 credits: 9
PED 121 - Tap Dance I (1)
PED 101 - Modern Dance I (2)
PED 102 - Modern Dance II (2)
PED 104 - Ballet I (Level 1) (2)
PED 105 - Ballet I (Level 2) (2)
PED 141 - Jazz Dance I (1)PED 142 - Jazz Dance II (1)TH 248 - Vocal Conditioning for theActor (1)TH 335 - Movement for the Actor (3)

Total Credits: 30

## Musical Theatre for Music Educators and Performers Minor

This minor is specifically designed for the music major who anticipates involvement in the production of musical theatre at the middle and secondary school levels. Strong tradition of collaborative projects exists between music, theatre, and dance programs for solid foundations to model a strong professional career. It is the only musical theatre minor of its kind in Washington State that includes specialized coursework for musical directors and music educators producing musical theatre at the secondary school level from skilled faculty with strong professional credentials. Must be combined with a degree program in music.

## Required Core

TH 244 - Basic Acting I ..................... 3
TH/MUS 315 - Fundamentals for High School
Musical Theatre Productions . . . . . . . . . . . 3
TH/MUS 316-Musical Direction for
Musical Theatre
TH 329 - Directing I . . . . . . . . . . . . . . . . . . . . . 3
TH 352 - Stage Dance . . . . . . . . . . . . . . . . . . . . 3
TH 416 - Musical Theatre History and Literature II3
TH 417 - Musical Theatre History and Literature III ..... 3
Voice-related Electives
Choose any of the following for a total of 3 credits

$\qquad$ ..... 3
TH 243 - Singing for Actors (1)
TH 343 - Singing for Actors II (1)

Related Electives
Choose 4 credits from the following . . . . . . 4
PED 101 - Modern Dance I (2)
PED 102 - Modern Dance II (2)
PED 104 - Ballet I (Level 1) (2)
PED 105 - Ballet I (Level 2) (2)
PED 121 - Tap Dance I (1)
PED 141 - Jazz Dance I (1)
PED 142 - Jazz Dance II (1)
TH 245 - Basic Acting: II (3)
TH 246 - Basic Acting III (3)
TH 335 - Movement for the Actor (3)
Production Electives
Choose one course from the following: ... 3
TH 301 - Production Application (3)
TH 302 - Performance Application (3)
TH 401 - Production Application (3)
TH 402 - Performance Application (3)
Total Credits: 31

## Theatre Arts Minor

The theatre arts minor offers an opportunity for students to study theatre while pursuing a degree in another discipline. This minor is often added to enhance study in art, music, politics, and interior design, among others.

## Required Core

TH 107 - Introduction to Theatre . . . . . . . . . 4
TH 166 - Theory of Play Production . ...... . 3
TH 244 - Basic Acting: I . . . . . . . . . . . . . . . . . 3
TH 301, 401 - Production Application . . . . . . 3 OR
TH 393, 493 - Theatre Laboratory (3)
Theatre Electives as approved by advisor . 17
Total Credits: 30

## Non-profit Organization Administration Minor

The minor in non-profit organization administration is an interdisciplinary minor designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing nonprofit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/Fund-raising . . . . 3
COM 470 - Applied Public Relations (5) OR
COM 475 - Public Relations and Advertising Management (4). 4-5
Choose one of the following:. . . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education
(Internship) (5)

COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

## Areas of Interest

Choose any of the following for a total of at least 9 credits. . . . . . . . . . . . . . . . .
ANTH 360 - Introduction to Museum Studies (4)
ANTH 361 - Museum Exhibit Design (4)
COM 370 - Writing for Public
Relations (4)
COM 487 - Public Relations Professional Seminar (3)
MUS 482 - Music Business (3)
TH 350 - Theatre Management (3)
TH 351 - Theatre Management (3)
TH 360 - Stage Management (3)
Total Credits: 29-30

## Non-profit Organization Administration Certificate

The certificate in non-profit organization administration is an interdisciplinary approach designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The courses provide practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/Fund-raising . . . . 3
COM 470 - Applied Public Relations (5)
OR
COM 475 - Public Relations and
Advertising Management (4).
Choose one of the following:. . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

Total Credits: 20-21

## Theatre Arts Courses

TH 101. Appreciation of Theatre and Film
(4). Viewing, discussing, and comparing film and live theatre performance.
TH 107. Introduction to Theatre (4).
Overview of the basic elements of the theatre arts and dramatic structure and the environment for production of plays. Attendance at assigned outside events is required.

TH 143. Private Voice Lessons (1-4).
Individual vocal instruction in the musical theatre style. Prerequisite: by permission of the instructor. Grade will be S or U .
TH 144. Foundations of Acting (3).
Introduction to the theory and practice of acting craft, development of the actor's tools, basic acting techniques, including pantomime, vocal conditioning, improvisation, and scene study.
TH 148. Actor Conditioning-Monologue
(1). Theory, technique, and practice of the acting craft with emphasis on choosing, analyzing, researching, and preparing monologues for audition and performance. Co-requisite: TH 244 . Grade will be S or U.
TH 166. Theory of Play Production (3). Theories of production are explored through basic script analysis and the examination of protocol and procedures in the resident production company and a variety of world theatre models.
TH 201. Dance Production Application (1-3). Skills learned in the classroom are applied to dance production work for public presentation. Prerequisite: admission to the major.
TH 202. Performance Studio (1-3). Skills learned in the classroom are applied to performance in studio work, which may be presented publicly. Prerequisite: admission to the major. May be repeated up to 24 credits.
TH 207. Introduction to Children's Drama
(3). History, literature, and aesthetics of children's drama techniques in the United States and throughout the world.
TH 215. Music Fundamentals for Musical Theatre I (3). Basic music terminology, fundamentals of notation, scales, and the study of basic rhythms. Ear training, interval singing, and melodic dictation. Prerequisite: MUS 154A, I.
TH 216. Music Fundamentals for Musical Theatre II (3). Study of major and minor scales, major and minor key signatures, major and perfect intervals, and continued study of rhythms. Interval and melodic singing, melodic dictation, and beginning of singing in counterpoint. Prerequisites: TH 215 or permission of instructor and MUS 154 A.II.
TH 217. Music Fundamentals for Musical Theatre III (3). Study of diminished, halfdiminished, and augmented intervals and scales, basic conducting patterns, exploration of lead sheets, and modern chord notation. Continuation of interval, melodic, and counterpoint singing, as well as sight singing and the reading of rhythmic patterns. Prerequisites: TH 216 or permission of instructor and MUS 154A.III.
TH 243. Singing for Actors (1). An introduction to the mechanics of singing as applied to presentations of theatrical show music. May be repeated for a maximum of 9 credits.
TH 244. Basic Acting 1 (3). Theory and practice of essentials of acting craftdevelopment of the actor's tools, the voice, body, and imagination. Introduction to

Satnislavski method, with viewpoints and composition.
TH 245. Basic Acting II (3). Theory and practice of essential acting craftdevelopment of the actor's tools, the voice, body, and imagination. Physical theatre techniques, improvisation, scene study. Prerequisite: TH 244 or permission of instructor.
TH 246. Basic Acting III (3). Theory and practice of essential acting craftdevelopment of the actor's tools, the voice, body, and imagination. Concentration on physical theatre techniques, scene study, and text analysis. Prerequisite: TH 245 or permission of instructor.
TH 248. Vocal Conditioning for the Actor (1). Study and application of the techniques used in the development of the actor's foundational vocal conditioning. Corequisite: TH 245 and TH 246. Grade will be S or U .
TH 261. Costume Technology (3). Basic theory and study of costume construction and fabrication for the theatre. Emphasis on terminology, safe operating procedures of sewing machinery, basic stitches, and fabric identification. Prerequisite: TH 166, or admission to the Apparel Design minor, or consent of the instructor. Participation in production work is required.
TH 266. Theatre Drafting (3). Supervised study and practice of drafting theatrical sets, properties, and light plots.
Prerequisites: TH 166 or permission of instructor.
TH 267. Scene Technology (3). Scene construction, rigging, painting, and shifting techniques. Prerequisites: TH 166 or permission of instructor. Participation in production work is required.
TH 268. Lighting Technology (3). Applied study of lighting instruments, lighting accessories, hanging, cabling, focusing, lighting control systems, safety, and maintenance. Prerequisite: TH 166 or permission of instructor. Participation in production work is required.
TH 270. Stage Makeup (3). The history, functions, materials, and techniques of makeup as a theatrical art. Prerequisite: TH 166 or permission of instructor. Production application required.
TH 290. Cooperative Education Portfolio (16). A collection of individualized contracted field experiences with the industry. This contractual arrangement involves a studentlearning plan, with a cooperating employer, under faculty coordination, that must be completed prior to the first experience to be included in the portfolio. May be repeated up to 6 credits. Will be graded $S$ or U .
TH 295. Theatre Education Portfolio (1). Live Text portfolio will be employed to build professional portfolios, documenting theatre training, and compliance with state certification and NCATE standards. Grade will be S/U.
TH 298. Special Topics (1-6).
TH 300. Rehearsal and Performance (1-2). Open only to non-majors participating in

Theatre Arts productions. Does not satisfy any requirement for the major. Course meets with appropriate application course and instructor. May be repeated for credit.
TH 301. Production Application (3). Skills learned in the classroom are applied to production work for public presentation. Prerequisite: TH 166 or permission of instructor. Open to Theatre majors only. May be repeated for a total of 12 credits each.
TH 302. Performance Application (3). Skills learned in the classroom are applied to performance work on productions for public presentation. Prerequisite: admission to the major. May be repeated for up to 12 credits.
TH 303. Management Application (3). Skills learned in the classroom are applied to stage management work on productions for public presentation. Prerequisite: admission to the major. May be repeated up to 12 credits.
TH 312. Creative Dramatics in School and Leisure (3). Theory and practice of dramatic improvisation as a stimulus for learning and creative recreation. Focus on exploratory drama for language acquisition and social interaction.
TH 313. Writing for Children's Theatre (3). Prerequisite: TH 166, and TH 207, or admission to the English Writing Specialization, or consent of the instructor.
TH 315. Fundamentals for High School Musical Theatre Productions (3). An exploration and practical application of the techniques specific to the successful production of musical theatre at the high school level. Crosslisted with MUS 315.
TH 316. Musical Direction for Musical Theatre (3). The exploration and practical application of responsibilities of the musical director position in high school musical theatre productions, from planning stages through closing night. Cross-listed with MUS 316.
TH 329. Directing I (3). Participation in and direction of fundamentals of applied directing. Prerequisites: TH 144, or TH 244 , or permission of instructor.
TH 330. Introduction to Playwriting (4). Fundamentals and practice in dramatic writing techniques and styles. Prerequisite: TH 107, TH 166, or enrollment in the English Writing Specialization major, or by permission. May be repeated to a maximum of 8 credits.
TH 332. New Play Production (2). An exploration of the problems and techniques specific to the production of original, student-written plays. Participation in public performances of new plays, including weekend and evening activities is required. Prerequisite: permission of instructor. May be repeated for credit.
TH 333. Stage Combat Fundamentals (3). The study and practice of basic skills, techniques, and safety factors used in staging and performing violence for the stage and media. Focus is on falls, rolls, and unarmed combat. May include use of one
historical weapon. Prerequisite: TH 244 or permission of instructor.
TH 335. Movement for the Actor (3). The study and practice of various movement disciplines, such as Laban, Suziki, Feldenkrais, Chekov, Lessac, or Alexander, to enhance flexibility and expressiveness of the actor's body in a variety of performance applications. Prerequisite: TH 246 or permission of instructor. May repeat for up to 9 credits.
TH 340. Introduction to Theatre Design (3). An introduction to the basic elements of design used to create unified scenery, costume, lighting, makeup, and sound designs with an emphasis in research and conceptualization.
TH 342. Stage Voice (3). Advanced voice training for the actor. Study of phonetics, scansion, phrasing, and proficient use of the vocal instrument. Prerequisite: TH 246.
TH 343. Singing for Actors II (1). An introduction to the mechanics of singing as applied to presentations of theatrical show music. Prerequisite TH 243 or permission of instructor. May be repeated to a maximum of 9 credits.
TH 344. Intermediate Acting I (3).
Character interpretation and scene study through script analysis and scene work. Prerequisites: TH 246 or permission of instructor. TH 344 and TH 345 to be taken in sequence.
TH 345. Intermediate Acting II (3).
Character interpretation and scene study through script analysis and scene work. Prerequisites: TH 107 and TH 344 or permission of instructor. Courses are to be taken in sequence.
TH 350. Theatre Management (3). Courses are to be taken in sequence. Policy and practice of theatre administration including budgets, contracts, box office, purchasing, staffing, marketing, and audience development. Prerequisites: TH 107 and TH 166 or permission of instructor.
TH 351. Theatre Management (3). Courses are to be taken in sequence. Policy and practice of theatre administration including budgets, contracts, box office, purchasing, staffing, marketing, and audience development. Prerequisites: TH 107 and TH 166 or permission of instructor.
TH 352. Stage Dance (3). Study and directed practice of individual and group dance in modern musical and opera productions.
TH 353. Stage Properties (3). Research, methodology, design, and construction of stage props and furniture. Prerequisite: TH 267 or permission of instructor.
TH 354. Scene Painting (3). Study in the methodology and skills of scene painting, materials, and techniques.
TH 356. Stage Sound (3). Engineering, design, and operation of the technologies for stage sound. Prerequisite: TH 166 or permission of instructor.
TH 360. Stage Management (3). Techniques, communication methodology, resources, practices, and technical training for the
stage manager. Prerequisites: TH 166 or permission of instructor.
TH 361. Stage Costuming (3). Further study of construction and fabrication for the stage. Emphasis on patterning, dyeing, and distressing costumes for the stage. Prerequisite: TH 261 or permission of instructor.
TH 363. Theatre History I (4). From origins to the Elizabethan Era. Prerequisite: TH 107 or permission of instructor.
TH 364. Theatre History II (4). From the Elizabethan period to Ibsen. Prerequisite: TH 107 or permission of instructor.
TH 365. Theatre History III (4). From Ibsen to the present. Prerequisite: TH 107 or permission of instructor.
TH 366. Theatre Rendering (3). Exploration and application of various rendering styles and media for theatrical applications. Prerequisite: permission of instructor.
TH 367. Stage Scenery (3). Introduction to technical direction and auditorium management. Advanced stage scenery construction techniques are studied and applied. Prerequisites: TH 267 or permission of instructor.
TH 368. Stage Lighting (3). Study of electricity, optics, color, distribution, projecting, drafting, lighting paperwork, and methods for lighting productions. Prerequisites: TH 266 and TH 268 or permission of instructor.
TH 375. Asian Drama (4). Survey of the traditional theatre, puppetry, and dance-drama forms of Asia. Historical development. Cultural and aesthetic aspects of the text in performance. Influence on contemporary world theatre.
TH 377. Staging Gender (4). Concepts of gender and their historical development are examined through analysis of dramatic literature, films, and contemporary performance culture.
TH 381. British Drama (4). Origins to present. Prerequisites for all English department majors and minors only, and ENG 302 and ENG 303. ENG 381 \& TH 381 are equivalent courses. Students may not receive credit for both.
TH 382. Ethnic Drama (4). Study of contemporary American multi-cultural plays by people of color and other ethnic groups.
TH 383. Contemporary World Drama (4). Selected post-First-World-War plays from around the world are studied. Prerequisite: TH 107 or permission of instructor.
TH 384. Puppetry (3). Survey of puppetry principles and their application to the classroom, recreational facility, and theatre. Production techniques. Analysis of literature adaptable to theatre form. Prerequisite: TH 166 or permission of instructor.
TH 393. Theatre Laboratory (1). Practical experience in all aspects of theatre production to better prepare for career opportunities. Prerequisite: permission of instructor. Each may be repeated for a total of 3 credits to a maximum of 6 credits.

TH 398. Special Topics (1-6).
TH 400. Rehearsal and Performance (1-2).
Open only to non-majors participating in Theatre Arts productions. Does not satisfy any requirement for the major. Course meets with appropriate application course and instructor. May be repeated for credit.
TH 401. Production Application (3). Skills learned in the classroom are applied to production work for public presentation. Prerequisite: TH 166 or permission of instructor. Open to Theatre majors only. May be repeated for a total of 12 credits each.
TH 402. Performance Application (3). Skills learned in the classroom are applied to acting work on productions for public presentation. Prerequisite: admission to the major. May be repeated for up to 12 credits.
TH 403. Management Application (3). Skills
learned in the classroom are applied to stage management work on productions for public presentation. Prerequisite: admission to the major. May be repeated for up to 12 credits.
TH 413. Producing Children's Theatre
(3). An exploration of the problems and techniques specific to the production of touring children's theatre productions and elementary age theatre productions. Participation in the research,
conceptualization, design and building of properties, costumes, sets, sound, and puppets for children's theatre. Prerequisites:
TH 261, TH267, or permission of instructor.
TH 415. Musical Theatre History and
Literature I (3). The history of musical theatre from the inception of this uniquely American art form through the innovations of Oklahoma! The contributions of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Prerequisite: TH 365 or permission of instructor.
TH 416. Musical Theatre History and
Literature II (3). The history of musical theatre from Oklahoma! to the inception of the rock musicals in the 1960s. The contributions of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Prerequisite: TH 415 or permission of instructor.
TH 417. Musical Theatre History and
Literature III (3). The history of musical theatre from the rock musicals of the 1960s to the present. The contributions of major lyricists, composers, directors, designers, performers, and choreographers, and an analysis of the works themselves, exploring the sociological relationships, ramifications, and cultural influences of the art form. Prerequisite: TH 416 or permission of instructor.

TH 420. Drama in the Schools K-12 (5).
Theatre appreciation, play production, curriculum development, verbal and nonverbal skills, traditions, and trends in the application of drama education in the K-12 classroom are explored and practiced. Prerequisite: TH 107 and TH 166.
TH 429. Directing II (3). Script study emphasizing the specific artistic and logistical preparation involved in directing a play. Culminates in directing selected scenes. Prerequisites: TH 329 and permission of instructor.
TH 430. Script Writers Workshop (4). Fundamentals and practice in writing fulllength dramatic scripts from concept to working draft, in a variety of areas such as musical theatre libretto, radio plays, reader's theatre, and stage plays from films.
Prerequisite: TH 107, TH 166, or enrollment in the English Writing Specialization major or Film and Video Studies major, or permission of instructor.
TH 433. Advanced Stage Combat (3). The study and practice of advanced skills, techniques, and safety factors used in staging and performing armed combat for the stage and media. Focus is on historical weaponry such as a single sword, rapier and dagger, broadsword, and small sword. Prerequisite: TH 333 or permission of instructor.
TH 435. Period Movement for the Actor (3). The study and practice of various period movement and dance styles, such as Greek, Renaissance, Farce, or Comedy of Manners, to prepare the actor's body for a variety of playing styles. Repeatable if course content changes. Prerequisite: TH 335 or permission of instructor.
TH 440. Advance Design Problems (3). Conceptualization, design, and application of advanced design techniques and theories through paper project or executed on mainstage productions in one of four areas: scenery, lighting, sound, or costumes. Prerequisites: TH 366, and TH 461, or TH 467 or TH 468, and permission of instructor.
TH 443. Singing for Actors III (1). Advanced study of the mechanics of singing as applied to presentation of theatrical show music. Prerequisites: 3 credits of TH 343 or permission of instructor. May be repeated for a maximum of 9 credits.
TH 444. Acting Styles (4). Performance skills applied to heightened texts and stylized comedy including Shakespeare, Wilde, Coward, and other major playwrights. Prerequisites: TH 344 or permission of instructor. May be repeated for a maximum of 8 credits if content differs.
TH 445. Audition Techniques (3). Exploration and practice of advanced techniques and materials required for professional auditions. Prerequisite: TH 344.
TH 446. Musical Theatre Audition Techniques (2). Exploration and practice of techniques and materials required for professional musical theatre auditions.
TH 452. History of Fashion (4). Historical
changes in fashion and costume design from Egyptian period through eastern civilization to present. Social, political, and religious influences on fashions. FCSA 452 and TH 452 are equivalent courses. Students may not receive credit for both.
TH 461. Costume Design (4). Basic principles of design related to theatrical costumes. The role of the costume designer in planning and developing a sketch from the initial reading of the script through production, research, production meetings, and rendering technique. Prerequisites: TH 361 or FCSA 388 and TH 366 or admission to Apparel Design minor.
TH 464. Wig Creation, Styling, and Maintenance (3). The study and practice of creating, styling, and maintaining wigs for stage.
TH 465. Costume and Fashion Drawing (3). Sketching design ideas for theatrical costumes and street clothing in threedimensional form with textural effects and color to present a realistic appearance on paper.
TH 467. Scene Design (4). Study, research, practice, and applied use of scenic design techniques and theory. Prerequisites: TH 267, TH 366, and TH 367, or permission of instructor.
TH 468. Lighting Design (4). Basic principles of design related to lighting design. The role of the lighting designed in planning and developing a sketch from the initial reading of the script through production, research, production meetings, and rendering technique. Prerequisites: TH 366 and TH 368 or permission of instructor.
TH 475. Acting for Film and Television (4). Study and practice of the techniques of performing for the camera. Topics may include the following: feature film, daytime drama, commercials, or other major applications. Prerequisite: TH 344 or permission of instructor. May be repeated for credit if content changes.
TH 481. Kennedy-Center Festival (1-2). Participation in the annual Kennedy Center American College Theatre Festival and / or the Northwest Drama Conference.
TH 487. Theatre Pedagogy (4). Student will be given individualized instruction in teaching practices and will participate in journal writing, critiquing, counseling, coaching, advising, leading discussion, and grading. Prerequisite: permission of the instructor. May be repeated for credit up to 8 credits. TH 487 and TH 587 are equivalent courses.
TH 489. Career \& Portfolio Preparation (3). Techniques and practice in preparation of professional portfolio, resumes, and letters of application for employment in the entertainment industry. Prerequisites: declared Theatre major, junior, or senior status.
TH 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning
plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
TH 491. Workshop (1-6).
TH 492. Practicum in Producing and Touring Theatre ( $3,6,12$ ). Lecture, demonstration and participation in producing and touring a show. Prerequisite: permission of instructor. A maximum of 3 credits may be applied to the specialization.
TH 493. Theatre Laboratory (1). Practical experience in all aspects of theatre production to better prepare for career opportunities. Prerequisite: permission of instructor. Each may be repeated for a total of 3 credits to a maximum of 6 credits.
TH 495. Senior Research Project (3). Senior students shall present a research paper in a major area of interest. Prerequisite: Theatre major senior status. May be repeated one time for credit.
TH 496. Individual Study (1-6). Prerequisite:
TH 107 or permission of instructor.
TH 498. Special Topics (1-6).
TH 499. Seminar (1-5).

## COLLEGE OF BUSINESS

## Administration and Organization

Dean
Roy Savoian, PhD (Shaw-Smyser Hall, room 129)

Associate Dean
Laura Milner, PhD (Shaw-Smyser Hall, room 126)

509-963-1955
Fax: 509-963-3042
www.cwu.edu / ~cb

## 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

CWU's College of Business faculty and staff create value and opportunity for our students by focusing on quality in undergraduate education at the Ellensburg campus and university centers in the Puget Sound and central regions of Washington State. We accomplish this through emphasis on excellence in teaching, strengthened by faculty research and supported by professional service.

## 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.

## Programs

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

- Bachelor of Science, Accounting
- Bachelor of Science, Business Administration with specializations in:

Finance
General Business
Human Resource Management
Management and Organization
Marketing Management
Supply Chain Management

- Bachelor of Science, Economics with specializations in:

Economic and Business Forecasting
General Economics
Managerial Economics
The college also offers a Master of Professional Accountancy degree through the graduate school. Students may take their junior and senior years of the accounting and
business administration programs at two westside centers: Lynnwood and Des Moines. In addition, upper-division coursework in support of major programs is offered at three eastside centers: Wenatchee, Moses Lake, and Yakima. Please refer to departmental listings in this catalog for more information about each major.

## Admission Requirements

Admission requirements to major programs within the College of Business are identical regardless of the location of the program. Students must first be accepted by the university and, if applicable, the university center which they plan to attend. Then, students must formally apply to the College of Business and be admitted to a major program prior to enrolling in 300and 400 -level courses within the college. Application forms are available on-line as well as at the University Centers and the Ellensburg main campus department offices. The application form must be completed and returned to the appropriate office along with copies of current transcripts. Applications are accepted at new student orientations. Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made, but must be approved prior to acceptance into the College of Business by the department chair and dean or designee. Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Service (WES), or Educational Perspectives. Credits for current students participating in a CWU study abroad program will be evaluated by the Study Abroad office.

## Transfer Credits

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements for any BS degree in the college. Upper-division (300400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee).

## Separation Policy

If a student that has been admitted to the College of Business is placed on academic probation, suspension, received multiple academic warnings, or has repeat academic course withdrawals, then the student's admission into the College of Business may be rescinded. Once rescinded, the student will be denied readmission to the College of Business for one year following which a written
petition for readmission must be presented. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Service to Other Majors

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

## Departments and Programs

Accounting: Marvin Bouillon (Shaw-Smyser Hall, room 340)
Economics: Robert Carbaugh and Koushik
Ghosh (Shaw-Smyser Hall, room 428)
Finance and SCM: Eldon Johnson (Lynnwood
Center, Snoqualmie Hall, room 302S)
Management: Mark Pritchard (Shaw-Smyser
Hall, room 333)

## ACCOUNTING DEPARTMENT

Ellensburg (E)
Shaw-Smyser Hall, room 327
CWU-Des Moines (D)
CWU-Lynnwood (L)
509-963-3340
Fax: 509-963-2875
www.cwu.edu / ~cb/acct/
See the Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
Marvin Bouillon, PhD, CPA (E)
Shaw-Smyser Hall, room 340

## Professors

Norman J. Gierlasinski, DBA, CPA, CFE, CIA (D)

Gary W. Heesacker, MBA, CPA (E)
Robert E. Holtfreter, PhD (E)
Karen D. Martinis, MBA, CPA (E)
Ronald R. Tidd, PhD, CPA (E)

## Associate Professors

MaryAnne Atkinson, PhD (L)
Linda Larson, PhD, DBA, CPA, CIA, CISA, CFE (L)
Michael Ruble, PhD, CPA (L)
James H. Thompson, PhD, (D)

## Assistant Professors

William Bailey, JD, LLM (L)
Yi-Ching Kao, PhD, (E)
Scott Leong, PhD (D)
Ke Zhong, PhD (D)
Staff
Sharon Damm, Secretary

## Department Information

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

## Bachelor of Science in Accounting Major

## Admission Requirements

Students must apply and be admitted to the major before enrolling in 300- and $400-l$ level courses in the College of Business (CB). However, students may enroll in ACCT 305, ACCT 346, and / or ACCT 350 before being admitted to the major if they have completed ACCT 252. At the time of application, all 200 -level pre-admission requirements should be substantially completed. Equivalent lower division (100and 200-level) courses may be transferred toward meeting the pre-admission requirements. Application forms are available in the department offices. Applicants must participate in a mandatory orientation activity as part of the application process. The completed application must be accompanied by transcripts that reflect all prior college work. Admission shall be based on grades earned in the pre-admission requirements.

Business courses taken to fulfill the requirements for an undergraduate or graduate degree from the CWU College of Business must have been taken within the last 10 years at the time of graduation. Exceptions may be made, but must be approved prior to acceptance into the College of Business by the department chair and dean or designee.
International students whose native language is not English must meet one of the following English proficiency requirements:

- A score of 71 or above on the Internetbased TOEFL or 527 or above on the paper-based TOEFL
OR
- A 3.0 (B grade) or above in each of two college-level English composition courses from an accredited United States college or university. Contact the Office of Admissions to find out what courses are acceptable.
Students wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as the Foundation for International Services (FIS), the World Education Services (WES), or Educational Perspectives.

A cumulative grade point average of 2.5 in the pre-admission requirements courses
must be achieved with a minimum grade of "C-" (1.7) in each course. The credit/no credit option will not be accepted for any of these courses and the department will strictly enforce the CWU policy on repeating classes. The applicant also must have completed all university general education requirements. The applicant must have earned a minimum cumulative GPA of 2.50 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

Students who have met all the above requirements will be admitted unless the number of eligible applicants exceeds available space. In that case, acceptance will be competitive, based on a selection index. Post-baccalaureate CWU accounting graduates and accounting graduates from AACSB International-accredited schools may take upper-division accounting courses on a space available basis.

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

If a student that has been admitted to the College of Business is placed on academic probation, suspension, had repeated academic warnings, or has repeat academic course withdrawals, then the student's admission into the College of Business may be rescinded. Once rescinded, the student will be denied readmission to the College of Business for one year following which a written petition for readmission must be presented. The decision to readmit will be based on meeting current admission standards, analysis of the entire academic record, as well as any other sources of information deemed appropriate. Readmission is not guaranteed.

## Graduation Requirements

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

Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean (or designee). Transfer students must earn at least 45 credits at CWU. Transfer students and post-baccalaureate students must complete at least 20 CWU in-the-major upper-division accounting credits to be eligible for the accounting degree. In addition to the 20 CWU in-the-major upper-division credits, transfer students and post-baccalaureate students must complete an additional 17 CWU in-the-major accounting major required course or elective credits to be eligible for the accounting degree. Lower-division (100-

200 level) accounting or business courses cannot be transferred to meet upper-division (300-400 level) course requirements. No accounting courses are offered for challenge by examination. CWU students who desire to study abroad must have the department chair and dean pre-approve credits transferred back to the College of Business using the Credit Transfer Agreement.

Central accounting students, up to 180 days before obtaining a degree and at least 225 quarter credits, or completing the Master of Professional Accountancy program, are qualified to sit for the Uniform Certified Public Accountant (CPA) examination. Washington law requires individuals wishing to sit for the CPA examination to have completed a minimum of 36 quarter credits of study in accounting and a minimum of 36 quarter credits in related business courses. See WAC4-25-710 for educational requirements). Registration for the examination is made through the State Board of Accountancy, Olympia, Washington (www.cpaboard. wa.gov /). Graduates are also prepared to sit for the Certified Management Accounting examination and the Certified Internal Auditor examination. Students should consult with their major advisor for details.

## Pre-admission Requirements

ACCT 251 - Accounting I . . . . . . . . . . . . . . . . 5
ACCT 252 - Accounting II . . . . . . . . . . . . . . . . . 5
MATH 130 - Finite Mathematics or other
college level math course approved by
the accounting department chair . . . . . . . . 5
BUS 221 - Introductory Business Statistics . . 5
BUS 241 - Legal Environment of Business . . 5
ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
Select one Math Course
MATH 153 - Pre-Calculus
Mathematics I (5)
MATH 154 - Pre-Calculus
Mathematics II (5)
MATH 170 - Intuitive Calculus (5)
MATH 172 - Calculus I (5)
MATH 173 - Calculus (5)
Pre-admission Total Credits: 40

## Required Courses

ACCT 305 - Cost Accounting . . . . . . . . . . . . . 5
ACCT 346 - Income Tax Accounting I . . . . . . 5
ACCT 350 - Intermediate Accounting I .... 5
ACCT 351 - Intermediate Accounting II . . . . 5
ACCT 460 - Auditing . . . . . . . . . . . . . . . . . . . . 5
FIN 370 - Introductory Financial
Management . . . . . . . . . . . . . . . . . . . . . . . . . 5
MGT 382 - Principles of Management . . . . . 5
MGT 489 - Strategic Management . . . . . . . . . 5
MKT 362 - Essential Marketing Concepts . . 5
SCM 310 - Supply Chain Management . . . . . 5
Select either. . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ACCT 455 - Accounting Information Systems (5)
OR
MIS 386 - Management Information Systems (5)

Select one of the following
ADMG 385 - Business Communications and Report Writing (5)
COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Electives selected from the following . . . 15
ACCT 405, ACCT 430, ACCT 446, ACCT 450, ACCT 455*, ACCT 461, ACCT 475, ACCT 484**, ACCT 485, ACCT 489, ACCT 490***, BUS 341

Total Credits: 114-115

* May not be used as an elective if taken in place of MIS 386.
** ACCT 484, if taken, should be completed no later than fall of senior year.
***A maximum of 5 credit hours of ACCT 490 can count toward the accounting elective credit requirement.


## Accounting Courses

ACCT 251. Accounting I (5). An introduction to accounting's business role. Recording and communicating financial information in the revenue, expense, and conversion cycles.
ACCT 252. Accounting II (5). Accounting for investing and financing activities. Evaluating firm performance. Prerequisite: АССТ 251.
ACCT 296. Individual Study (1-6). Prerequisite: permission of instructor.
ACCT 301. Financial Accounting Analysis (5). Underlying concepts, preparation, and use of financial statements from the user's viewpoint. Recommended for individuals not majoring in accounting or business. Not open to accounting and business administration majors.
ACCT 305. Cost Accounting (5). Economics of cost accounting; industrial analysis, production control through costs, types of cost systems, and burden application. Prerequisite: ACCT 252.
ACCT 346. Income Tax Accounting I (5). Accounting theory and practices of federal income taxation based on a study of governmental publications-the laws, regulations, and digest of official income tax decisions. Prerequisite: ACCT 252.
ACCT 350. Intermediate Accounting I (5). Theory underlying the presentation of current and fixed assets, liabilities, and net worth. Prerequisite: ACCT 252.
ACCT 351. Intermediate Accounting II (5). A continuation of the theory underlying the presentation of assets, liabilities, and net worth. Financial statement analysis, comparative statements, and statement of changes in cash flows. Prerequisite: ACCT 350 and admission to accounting or business administration major.
ACCT 405. Advanced Cost Accounting (5). Computation of mix, yield, and variances; value of information theory systems design; and decision models relating to control of costs. Prerequisite: ACCT 305 and admission to accounting major.

ACCT 430. Accounting for Non-Profit
Organizations (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. Prerequisite: ACCT 350 and admission to accounting major.
ACCT 446. Income Tax Accounting II (5). Tax accounting practice, including gross income deductions, depreciation, capital gains and losses, estates and trusts, corporate problems, and administrative procedures. Prerequisite: ACCT 346 and admission to accounting major.
ACCT 450. Advanced Accounting (5). Accounting theory and practice for business combinations and consolidated financial statements, foreign currency transactions and translation, partnerships, and advanced special topics. Prerequisite: ACCT 351 and admission to accounting major.
ACCT 455. Accounting Information Systems (5). Accounting information system development process and related information systems technologies. Includes the application, control, and audit of accounting information systems. Prerequisite: admission to accounting or business administration major. Co-requisite, ACCT 350.
ACCT 460. Auditing (5). Auditor's functions and responsibilities. Evaluation of the system of internal control, the determination of appropriate auditing procedures, and the extent of their application. Prerequisite: ACCT 351 and admission to accounting major.
ACCT 461. Fraud Examination (5). Detection and prevention of financial statement fraud and other forms of business fraud. Prerequisite: ACCT 350, recommended ACCT 460. Prerequisite: admission to accounting major.
ACCT 475. International Accounting (5). Explores the formulation and application of accounting principles in other industrialized countries. Particular emphasis directed toward the harmonization of accounting principles between the U.S. and other countries. Prerequisite: ACCT 351 and admission to accounting major.
ACCT 484. Professional Writing and Speaking for the Accountant (5). Develop written and verbal communications skills for practical application in public, private, and governmental accounting fields. Includes interviewing techniques, preparation and presentation of group and individual reports, and preparation of resumes, letters, memos, and work papers. Prerequisite: ACCT 351, recommended ACCT 460. Prerequisite: admission to accounting major.
ACCT 485. Current Issues in Accounting (5). Explores current theoretical and practical issues in accounting, including
but not limited to GAAP, employment, CPA and CMA examinations, and ethics. Seminar format. Prerequisite: ACCT 305, ACCT 346, and ACCT 351, and admission to the accounting major. ACCT 460 is recommended.
ACCT 489. Managerial Controllership
(5). Controllers and their organizations and business decision making under conditions of uncertainty with utilization of quantitative techniques. Prerequisite: ACCT 305 and admission to accounting major
ACCT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
ACCT 492. Volunteer Income Tax Assistance
(2). Preparation of tax returns of lowincome taxpayers, including tax return preparation training. Prerequisite: ACCT 346 and admission to the major.
ACCT 493. Applied Accounting Techniques (3). Under direct supervision of the instructor, assist in answering accounting students' questions and aid in completion of homework for a minimum of six hours weekly. Other tasks as assigned. Prerequisite: permission of instructor. Grade will be S or U .
ACCT 496. Individual Study (1-6).
Prerequisite: permission of instructor.
ACCT 498. Special Topics (1-6).
ACCT 499. Seminar (1-5).

## ECONOMICS <br> DEPARTMENT

Ellensburg
Shaw-Smyser Hall, room 413
509-963-2664
Fax: 509-963-1992
www.cwu.edu / ~cb /econ/
See the Web site for how these programs could be used for educational and career purposes.

## Faculty Chairs

Robert J. Carbaugh, PhD, summer and fall quarters, Shaw-Smyser 428
Koushik Ghosh, PhD, winter and spring quarters, Shaw-Smyser, 427

## Professors

Robert J. Carbaugh, PhD
Distinguished Professor of Research
Distinguished Professor of Teaching
Koushik Ghosh, PhD
David W. Hedrick, PhD
Peter J. Saunders, PhD
Distinguished Professor of Research
Roy Savoian, PhD

## Associate Professors

Timothy P. Dittmer, PhD
Charles S. Wassell Jr., PhD

## Assistant Professors

Tyler Prante, PhD
Thomas Tenerelli, PhD

## Emeritus Faculty

Donald Cocheba, PhD
Distinguished Professor of Research
Wolfgang Franz, PhD
Distinguished Professor of Public Service

## Gerald Gunn, PhD

Richard Mack, PhD
Distinguished Professor of Research

## Staff

Shirley Hood, Secretary Senior

## Department Information

Positions of responsibility in today's world are usually held by individuals who have the capacity to analyze complex problems and make intelligent decisions. Learning economics will help students think logically and improve their ability to use economic concepts to analyze "real world" problems and opportunities. In addition to preparation for business and government agency employment, an economics major is excellent preparation for law schools, master's of business administration programs, and graduate programs in economics, agricultural economics, and natural resource management. The economics department offers a Bachelor of Science degree in Economics with specializations in managerial economics, general economics, and economic and business forecasting. Economics minors are offered to complement accounting, business administration, and other majors.

The BS Economics major is comprised of the following components:

1) pre-admission courses providing necessary theoretical and quantitative skills to pursue studies in economics, 2) core courses in both micro and macro economic theory, and 3) a choice of supporting courses for each of the three economics major specializations.

## Transfer Credits

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements for any BS degree in the College of Business.

Upper-division (300-400 level) courses may be transferred toward meeting the major requirements only with the approval of the department chair and the college dean or designee.

Transfer students must earn a minimum of 45 quarter credits at CWU to be eligible for the BS economics degree. Transfer students earning fewer than 45 quarter credits in their major at CWU must receive approval from the college dean prior to graduation.

## Service to Other Majors

Students majoring outside the College of Business who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in courses.

## Bachelor of Science <br> Economics Major with Specialization

Coursework counting toward the major cannot be taken credit/no credit by economics majors. Double majors are available. Interested students should consult with their advisor or the department chair for details prior to enrolling.

The economics faculty has determined the following objectives which apply to all BS economics graduates:

- Students completing an economics degree will possess the tools which enable them to analyze and understand macro and micro economic problems and policies.
- Students will possess qualifications and knowledge which will help them to find employment in fields related to economics.
- Students will acquire and be able to use basic tools to enable them to carry out quantitatively oriented tasks in their employment or their field of graduate studies.
- Students completing the program should possess the communication and economic skills desirable in their future employment or graduate studies.


## Economics Foundation Requirements

Students must apply and be admitted to the major. Admission will be determined by the grades earned in the Economic Foundation and appropriate specialization pre-admission courses.

## Foundation Courses

BUS 221 - Introductory Business Statistics . . 5
ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
MATH 130 - Finite Math . . . . . . . . . . . . . . . . . 5
MATH 153 - Pre-Calculus Mathematics I . . . 5 OR
MATH 170 - Intuitive Calculus OR
MATH 172 - Calculus I
OR
MATH 173 - Calculus II
Economic Foundation Total Credits: 25
Business and Economic Forecasting Preadmission Requirements
Economic Foundation Courses . . . . . . . . . . . 25
ACCT 251 - Accounting I . . . . . . . . . . . . . . . . 5
ACCT 252 - Accounting II . . . . . . . . . . . . . . . . 5

BUS 241 - Legal Environment of Business. . . 5
Pre-admission Total Credits: 40

## General Economics Pre-admission

Requirements
Economic Foundation Courses . . . . . . . . . . . 25
There are no additional pre-admission courses required.

Pre-admission Total Credits: 25

## Managerial Economics Pre-admission <br> Requirements <br> Economic Foundation Courses . . . . . . . . . . . 25

ACCT 251 - Accounting I . . . . . . . . . . . . . . . . 5
ACCT 252 - Accounting II . . . . . . . . . . . . . . . . 5
BUS 241 - Legal Environment of Business. . . 5
Pre-admission Total Credits: 40

## Additional Admission Information

A cumulative grade point average of 2.5 in the above courses must be achieved with a minimum grade of $C$ - (1.70) in each course. The credit/ no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.5 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions. Applicants must have also completed ENG 101 and 102.

Students who have met all the above requirements will be admitted unless the number of eligible applicants exceeds available spaces. In that case, acceptance will be competitive, based on a selection index. Students who have not met all of the above requirements may be admitted provisionally by permission of the college dean or designee.

## Economic and Business Forecasting Specialization

This specialization is for students who seek careers involving research in economics and business, including forecasting.

## Required Courses

Economics Foundation/Pre-admission. . . . 40
ECON 324 - Introduction to Econometrics . . 5
ECON 325 - Introduction to Forecasting ... 5
ECON 401 - Intermediate Microeconomic
$\qquad$
ECON 402 - Intermediate Macroeconomic
Analysis . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ECON 406 - Economics Assessment . . . . . . . 3
ECON 426 - Economic Research . . . . . . . . . . 5
FIN 370 - Introductory Financial
Management . . . . . . . . . . . . . . . . . . . . . . . . 5
MGT 382 - Principles of Management ..... 5
MIS 386 - Management Information Systems
MKT 362 - Essential Marketing Concepts . . . 5
SCM 310 - Supply Chain Management . . . . . 5

Select one of the following .4-5<br>ADMG 385 - Business Communications and Report Writing (5)<br>COM 345 - Business and Professional Speaking (4)<br>ENG 310 - Technical Writing (4)

Total Credits: 97-98

## General Economics Specialization

This specialization is recommended for students desiring the traditional Economics major. Highly recommended supporting courses: MATH 172, MATH 173, and FIN 370

## Required Courses

Economics Foundation/Pre-admission. . . . 25
ECON 310 - International Economics . . . . . . 5
ECON 324 - Introduction to Econometrics . . 5
ECON 330 - Money and Banking . . . . . . . . . . 5
ECON 332 - Public Finance . . . . . . . . . . . . . . . . 5
ECON 401 - Intermediate Microeconomic Analysis
ECON 402 - Intermediate Macroeconomic
Analysis
. 5

ECON 406 - Economics Assessment . . . . . . . 3
ECON 426 - Economic Research . . . . . . . . . . 5
MIS 386 - Management Information Systems 5

Select one of the following . . . . . . . . . . . . .4-5
ADMG 385 - Business Communications and Report Writing (5)
COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Department-approved electives selected from the following
Any 300- to 400-level economics courses; one accounting course (5) may be selected in place of one economics course.

Total Credits: 82-83

## Managerial Economics Specialization

This specialization is for students with an interest in both public and private sector employment and preparation for law school. Highly recommended supporting courses:
MATH 170 or MATH 172. The managerial economics specialization can be used as part of a double major. See your advisor for details.

## Required Courses

Economics Foundation/Pre-admission. . . . 40
ECON 352 - Managerial Economics . . . . . . . 5
ECON 401 - Intermediate Microeconomic
Analysis
ECON 402 - Intermediate Macroeconomic Analysis
.... 5
FIN 370 - Introductory Financial Management $\qquad$
Select one of the following . . . . . . . . . . . . 4-5
ADMG 385 - Business Communications and Report Writing (5)

COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Department-approved electives selected
from the following. . . . . . . . . . . . . . . . . .
300 - to 400 -level Economics courses (except ECON 396, ECON 490, ECON 496) (15)

Other 300- to 400-level accounting, business administration and economics courses (5)

Total Credits: 87-88

## Additional Graduation

Requirements for all Department Specializations

A cumulative grade point average of 2.5 in the above courses must be achieved with a minimum grade of $C$ - in each course. The credit/ no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.5 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

## Economics Minor I

This minor is designed to accompany the business administration and accounting majors. Prior approval of electives by the economics advisor is required.

## Required Courses

ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
Select from the following. . . . . . . . . . . . . . . . 5
ECON 310 - International Economics (5)
ECON 330 - Money and Banking (5)
ECON 332 - Public Finance (5)
ECON 401 - Intermediate Microeconomic Analysis (5)
ECON 402 - Intermediate Macroeconomic Analysis (5)
Additional Credits $\qquad$
Select 10 additional credits from the above list
OR
Other 300- to 400-level economics courses with departmental approval

Total Credits: $\mathbf{2 5}$

## Economics Minor II

This minor is designed for all majors with the exception of business administration and accounting. Prior approval of electives by the economics advisor is required.

## Required Courses

ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
Select from the following. . . . . . . . . . . . . . . 5
ECON 310 - International Economics (5)
ECON 330 - Money and Banking (5)
ECON 332 - Public Finance (5)
ECON 401 - Intermediate Microeconomic Analysis (5)

ECON 402 - Intermediate
Macroeconomic Analysis (5)
Additional Electives
Select an additional 5 elective credits from the above list OR
Other 300-400 level economics courses with departmental approval

Total Credits: 20

## Additional Graduation Requirements for Economics I and II Minors

A cumulative grade point average of 2.5 in the above courses must be achieved with a minimum grade of $C$ - in each course. The credit/no credit option will not be accepted for any of these courses. The student must have earned a minimum cumulative GPA of 2.5 in all collegiate study. These criteria also apply to equivalent courses transferred from other institutions.

## Economics Courses

ECON 101. Economic Issues (5). For the student who desires a general knowledge of economics. Applications of economic principles to current social and political problems. ECON 101 cannot be substituted for either ECON 201 or 202.
ECON 102. World Economic Issues (5). An introduction to current international issues related to international trade and finance, economic development, and comparative economic systems.
ECON 201. Principles of Economics Micro
(5). The function of the market system in the allocation of scarce resources, determination of prices, output in competitive and monopolistic markets, and distribution of income. The role of government in the market economy.
ECON 202. Principles of Economics Macro (5). Organization of the U.S. economy, structure and role of the monetary system, problems of employment and inflation, overall impact of government spending, and taxation on the economy. Economic growth, world economic problems, and a comparison of capitalism with other economic systems. Prerequisite: ECON 201 or permission of instructor.
ECON 298. Special Topics (1-6).
ECON 310. International Economics (5). International trade and monetary theories; analyzing economic relationships and adjustments within and among trading nations; specialization, tariffs, balance of payments, and international monetary systems. Prerequisite: ECON 202.
ECON 324. Introduction to Econometrics (5). Computer application of statistical and mathematical techniques to business and economic problems. Prerequisites: ECON 201 and BUS 221 or permission.
ECON 325. Introduction to Forecasting (5). An introduction to methods employed
in business and econometric forecasting. Topics include time series modeling, BoxJenkins models, and seasonal adjustments. Covers data collection methods, graphing, model building, model interpretation, and presentation of results. Prerequisites: MATH 153 or 170 or 172.
ECON 330. Money and Banking (5). The supply of money and the Federal Reserve System; financial intermediaries and financial instruments; macroeconomic theory and policy. Prerequisite: ECON 202.
ECON 332. Public Finance (5). Rationale of public sector; effect of government expenditure and taxation on resource allocation and income distribution; structure of federal, state, and local tax systems. Emphasis is on current policy problems. Prerequisite: ECON 202.
ECON 340. Development of Economic Thought (5). The historical development of economic concepts and their classification into schools of thought. Contributions to economics from medieval to modern time and relationships among various economic, social, and political philosophies. Prerequisite: ECON 202.
ECON 346. Comparative Economic Systems (5). Compares the capitalist market economy to the centrally planned system and considers a variety of mixed systems. Economic structure and performance of select countries; emphasizes economies in transition and the Pacific Rim. Prerequisite: any economics course.
ECON 348. Economic History of the United States (5). Economic factors in the development of the American nation, from the European background to the present. ECON 348 and HIST 348 are equivalent courses. Students may not receive credit for both.
ECON 352. Managerial Economics (5). Application of microeconomic theories to managerial decisions and planning utilizing the case method. Prerequisites: ECON 202 and BUS 221.
ECON 355. Economics of Labor (5). Economics of the labor market, labor, productivity, investment in human capital, manpower problems, and public policy. Prerequisite: ECON 202.
ECON 356. Government and Business (5). The development and current status of relations between the U.S. government and business firms. Government regulation of competition and monopoly; subsidies and public enterprise. Prerequisite: ECON 201.
ECON 360. Contemporary Economic Problems (5). An examination of selected current economic issues concerning the U.S. and world economies and its relationship to economic theory.
ECON 398. Special Topics (1-6).
ECON 401. Intermediate Microeconomic
Analysis (5). Markets as mechanisms for organizing and directing human activities; production of goods and services; the allocation of labor, capital, and natural resources to various productive activities;
and the distribution of income. Relationship between microeconomics theory and contemporary thought, practical problems and government policies. Prerequisite: ECON 201.
ECON 402. Intermediate Macroeconomic Analysis (5). Analysis and measurement of U.S. national income and product accounts; determinants of income, employment and prices under the Classical and Keynesian systems; problems of inflation, economic growth and stabilization policy. Prerequisite: ECON 202.
ECON 406. Economics Assessment (3). End-of-program assessment activities including the taking of the Educational Testing Service exam in economics. Preparation of resumes for future entry into the job market. Prerequisite: economics major, senior standing, ECON 401 and 402 (or concurrent enrollment).
ECON 426. Economic Research (5). Designed to familiarize students with an understanding of econometric theory and testing procedures. The course uses a timeseries approach in econometric hypotheses testing. A completion of an economic research project is required. Prerequisites: ECON 202 and BUS 221.
ECON 462. Economics of Energy, Resources, and Environment (5). Economic decisionmaking related to issues of pollution, energy, resource use, and external effects. Benefit/ cost analysis, cost effectiveness, and other economic methods. Prerequisite: ECON 201 or by permission of the instructor.
ECON 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
ECON 496. Individual Study (1-6).
Prerequisite: permission of instructor.
ECON 498. Special Topics (1-6).
ECON 499. Seminar (1-5).


## FINANCE AND SUPPLY CHAIN MANAGEMENT DEPARTMENT

Ellensburg (E)
Shaw-Smyser Hall, room 303
CWU-Des Moines (D)
CWU-Lynnwood (L)
509-963-2032
Fax: 509-963-2875
www.cwu.edu / ~cb/finscm
See the Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Eldon Johnson, PhD (L)

## Professors

Bruce Bagamery, PhD, finance (L)
Eldon Johnson, PhD, finance (L)

## Associate Professors

Ozden Bayazit, PhD, supply chain management (L)
Gary Richardson, PhD , finance (E)
Michael Young, PhD, finance (E)

## Assistant Professors

$\mathrm{Ke} \mathrm{Ke}, \mathrm{PhD}$, supply chain management (D) Yong Joo Lee, PhD, supply chain management (E)

Kun Liao, PhD, supply chain management (L)
Samuel Otim, PhD, management information systems (E)
Carlo Smith, PhD, supply chain management (E)

Fang Wang, PhD, finance (D)
Michael Young, PhD, finance (E)
Staff
Marilyn Lowe, Secretary

## Bachelor of Science in Business Administration Program

The Department of Finance and SCM and the Department of Management jointly support the bachelor of science in business administration - general business specialization and business minor. The department offers coursework leading to the bachelor of science in business administration (BSBA) degree. In addition to the university general education requirements, the BSBA major is comprised of three principal components: 1) pre-admission courses that provide foundation knowledge and skills needed for further study in business; 2) business core courses that build on the pre-admission group and focus on decision making in the main functional areas of business; and 3) specialization courses that allow for advanced study in one of the functional areas.

Students matriculating in Ellensburg select a 25 -credit specialization within the BSBA program in one of six areas: finance, general business, human resource management, management and organization, marketing management, or supply chain management. Students matriculating at a university center are limited to the 25 -credit general business specialization.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based Educational Outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and / or prepare them for additional study

2. Values-based Educational Outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based Educational Outcomes. Upon completion of the BSBA program., students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upperdivision (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Repeat Policy

Business administration courses may be repeated only once.

## Service to Other Majors

Students majoring outside of the College of Business who are required to take courses
in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in upper-division courses.

## Bachelor of Science Business Administration Major

BSBA Program Admission Requirements Students must apply and be accepted into the major prior to beginning 300- or 400 -level business coursework. At the time of application, the 40 credits of preadmission coursework should be substantially completed. Application forms are available in the department offices and are accepted at new student orientations. The completed form must be accompanied by transcripts that reflect all prior college work. Admission shall be based on grades earned in the following courses:
ACCT 251 - Accounting I
. 5
ACCT 252 - Accounting II . . . . . . . . . . . . . . . . . 5
BUS 221 - Introductory Business Statistics . . 5
MATH 130 - Finite Mathematics. . . . . . . . . . . 5
BUS 241 - Legal Environment of Business . . 5
ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
MATH 153 - Pre-Calculus Mathematics I . . . 5
OR
MATH 154 - Pre-Calculus
Mathematics II (5)
OR
MATH 170 - Intuitive Calculus (5)
OR
MATH 172 - Calculus I (5)
OR
MATH 173 - Calculus II (5)
Pre-admission Total Credits: 40
Additional Admission Information
A cumulative grade point average of 2.5 in the above courses must be achieved with a minimum grade of C- (1.70) in each course. The credit/no credit option will not be accepted for any of these courses. The applicant must have completed ENG 101/102. These criteria apply to equivalent courses transferred from other institutions.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive, based on a selection index.

Additional BSBA Graduation Requirements
The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99-100 credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 5960 credit upper-division component of the in-the-major total.
- Transfer students must complete at least

40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489.

- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.
Pre-admission Requirements 40
Business Core Requirements
FIN 370 - Introductory Financial
Management5
MGT 382 - Principles of Management ..... 5
MGT 489 - Strategic Management . .....  5
MIS 386 - Management Information Systems 5

MKT 362 - Essential Marketing Concepts . . . 5
SCM 310 - Supply Chain Management . . . . . 5
Business Core Total Credits: 30
Communication Requirement
Select from the following. . . . . . . . . . . . . . .4-5
ADMG 385 - Business Communications and Report Writing (5)
COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Specialization Requirements . . . . . . . . . . 25
Select one of the following three areas:
Finance
General Business
Supply Chain Management
Total Credits: 99-100

## Finance Specialization

## Advisors

Bruce Bagamery, PhD
Eldon Johnson, PhD
Gary Richardson, PhD
Fang Wang, PhD
Michael Young, PhD
Finance builds on the business core and focuses on decision making in three interrelated areas: managerial finance, investments, and financial markets, and institutions. The business core and finance specialization courses provide academic preparation for a wide variety of entry-level positions in managerial finance and the financial services industry.

## Required Courses

ECON 330 - Money and Banking . . . . . . . . . . 5
FIN 470 - Intermediate Financial
Management
FIN 475 - Investments . . . . . . . . . . . . . . . . . . . 5
Select a minimum of 10 credits
from the following 10
(With no more than 5 credits from
ECON classes)
BUS 490 - Cooperative Education Credits: (1-6) or one other course approved in advance by a financial advisor (5)
ECON 310 - International Economics (5)

ECON 332 - Public Finance (5)
ECON 352 - Managerial Economics (5)
FIN 474 - Personal Financial Planning (5)
FIN 476 - Advanced Investments (5)
FIN 477 - International Finance (5)
FIN 478 - Management of Financial Institutions (5)
FIN 479 - Derivative Securities and Risk Management (5)
Finance Specialization Total Credits: 25

## General Business Specialization

Advisors
All full-time faculty in the department.
This specialization is intended for the student who wishes to tailor a "unique" set of specialization courses to his or her needs or for the student who desires a broadbased "generalist" track within the business administration major. Twenty-five upperdivision elective credits are required including at least 20 credits must be business (BUS), finance (FIN), human resource management (HRM), management (MGT), marketing (MKT), management information systems (MIS), or supply chain management (SCM) courses. The remaining five credits may be accounting (ACCT) or economics (ECON). The student is limited to 10 credits from any one area and the specialization must include at least 10 credits of 400 -level courses.

## General Business Specialization <br> Total Credits: 25

## Supply Chain Management Specialization

Advisors
Ozden Bayazit, PhD
Ke Ke, PhD
Yong Joo Lee, PhD
Kun Liao, PhD
Carlo Smith, PhD

Supply chain management (SCM) builds on the business core and prepares students for careers as analysts, decision makers, and managers in any and all segments of the organization's supply, production, and distribution chain. Students who complete this program will have a fundamental understanding of the systematic, integrated nature of the creation and delivery of goods and services, and the manner in which the supply, production, and distribution chain includes or involves other internal and external entities. Students will be able to solve problems and make decisions in this environment by using concepts from accounting, economics, and other business administration areas, computing and analytical skills, and appropriate quantitative and qualitative models.

## Required Courses

SCM 425 - Procurement and Supply Management5

SCM 435 - Advanced Operations Management 5

SCM 475 - Global Supply Chain
Management ..... 5
SCM 480 - Supply Chain Strategy .....  5
Minimum of 5 credits from the following. .

ACCT 305 - Cost Accounting (5)
BUS 490 - Cooperative Education (1-12)
ECON 352 - Managerial Economics (5)
MGT 384 - Introduction to International Business (5)
MGT 484 - International Management (5)
OR one other course approved in advance by SCM advisor (5)
SCM 324 - Quality and Continuous Improvement (5)

SCM Total Credits: 25

## Business Minor

Advisors
Any business administration faculty member.
The business minor provides students with an introduction to several key areas of business administration. Students are admitted into the program when the completed minor application form is approved by a business administration minor advisor. Forms are available in the department offices. Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the business administration minor requirements.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5 OR
ACCT 252 - Accounting II (5)
BUS 241 - Legal Environment of Business. . . 5
ECON 201 - Principles of Economics Micro . 5 OR
BUS 374 - Personal Investments (5)
HRM 381 - Management of Human
Resources . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MGT 380 - Organizational Management. . . . 5
MKT 360 - Principles of Marketing . . . . . . . . 5
Total Credits: 30

## Supply Chain Management Certificate Program

Advisors
Ozden Bayazit, PhD
Ke Ke, PhD
Yong Joo Lee, PhD
Kun Liao, PhD
Samuel Otim, PhD
Carlo Smith, PhD
The certificate program provides the opportunity for the student to gain knowledge and skills in the full spectrum of supply chain activities - supplier relationships, purchasing management,
operations and inventory management, logistics and transportation, quality management, and information technology. Typical job titles include: purchasing/ supply manager, procurement manager, materials manager, contracts manager, purchasing agent, senior buyer and buyer/planner.

## Required Courses

MIS 386 - Management Information Systems 5
SCM 425 - Procurement and Supply
Management . . . . . . . . . . . . . . . . . . . . . . . . 5
SCM 435 - Advanced Topics in Operations
Management . . . . . . . . . . . . . . . . . . . . . . . . 5
SCM 475 - Global Supply Chain
Management . . . . . . . . . . . . . . . . . . . . . . . . . 5
Select a minimum of 5 credits from . . . . . . 5
ACCT 305 - Cost Accounting (5)
BUS 321 - Intermediate Business Statistics (5)
BUS 490 - Cooperative Education (1-12)
MGT 384 - Introduction to
International Business (5)
MGT 484 - International Management (5)
SCM 324 - Quality and Continuous Improvement (5)
SCM 480 - Supply Chain Strategy (5)
Certificate Program Total Credits: 25

## Additional Notes

This program is open to current accounting, economics, finance, management, marketing, and operations supply chain students and CWU students in other academic programs who have completed business pre-admission courses, and persons with bachelors degrees in other fields who have completed business pre-admission courses. The courses in the certificate program may be used as part of the BS Business Administration Program. A cumulative GPA of 3.0 must be earned in the program to be eligible for the certificate.

## Finance Courses

FIN 364. Personal Finance (5). Broadspectrum course covering financial issues encountered by individuals throughout their lives. Topics include but are not limited to preparing a personal budget, money management, investments, retirement planning, and insurance. May not be used to fulfill a College of Business upper-division course requirement.
FIN 370. Introductory Financial Management
(5). An introduction to financial decision making. Topics include financial statement analysis, time value of money, risk and return, securities valuation, capital budgeting, cost of capital, and capital structure. Prerequisite: admission to the major.
FIN 470. Intermediate Financial
Management (5). A review, consolidation, and extension of the FIN 370 class. Additional focus on the theory, practice, and analysis of the firm's investing and financing activities as these activities relate
to the value creation process. Prerequisites: FIN 370 and admission to the major.
FIN 474. Personal Financial Planning (5). Introduction to a full range of financial planning decisions, including budgeting, investing, tax planning, risk management, employee benefits, retirement, and estate planning. Prerequisites: FIN 370 and admission to the major.
FIN 475. Investments (5). Principles of investment valuation. Topics include a survey of securities and securities markets, analysis of risk, expected return, timing, and selection of stocks and bonds in a portfolio context. Prerequisites: FIN 370 and admission to the major.
FIN 476. Advanced Investments (5). Portfolio theory, construction, and administration. Cases may be used to analyze key investment decisions and to relate theories and concepts to real-world situations. Prerequisites: FIN 475 and admission to the major.
FIN 477. International Finance (5). Financial decision making in an international setting. Explores both traditional areas of finance and recent innovations in financial management from the perspective of the multinational corporation. Prerequisites: FIN 370 and admission to the major.
FIN 478. Management of Financial
Institutions (5). Asset-liability management process; investment and financing activities of banks, savings and loans, and credit unions. Prerequisites: FIN 370 and admission to the major.
FIN 479. Derivative Securities and Risk Management (5). Survey of characteristics, markets, and pricing of options, futures, and other derivative securities and their use in managing risk for large and small business and investors, domestically and internationally. Prerequisites: FIN 370 and admission to the major .

## Management Information Systems Courses

MIS 386. Management Information Systems
(5). Use of computer-based information systems in all functional areas of business. Computer and information technology, resources, management and end-user decision-making, and system development. Prerequisite: admission to the major.
MIS 420. Database Systems in Business (5). Database systems theories. Logical data modeling, physical database design and implementation for business process improvement, and effective business decision-making. Structured query language. Prerequisites: MIS 386 and admission to the major.
MIS 445. Systems Analysis and Design in Business (5). Methods for planning, analysis, and design of information systems in business; systems development tools; modeling; business process redesign;
business applications development. Prerequisites: MIS 386 and admission to the major.

## Supply Chain Management Courses

SCM 310. Supply Chain Management (5). Adoption of a supply chain orientation toward business management that emphasizes the inter-functional and inter-firm relationships which contribute to improving coordination of operations and performance of organizations that participate in various types of supply chains. Prerequisite: admission to the major.
SCM 324. Quality and Continuous
Improvement (5). Development and deployment of quality management and continuous improvement practices. Qualitative, analytical, and statistical methods, which integrate managerial, technical, behavioral, and economic perspectives. Prerequisites: SCM 310 and admission to the major.
SCM 425. Procurement and Supply Management (5). Purchasing processes, procurement cycle analysis, research to support purchasing decisions, supplier relationship development and management, negotiations, commodity planning, costing, pricing, and value analysis related to the purchasing of products and services. Prerequisites: SCM 310 and admission to the major.
SCM 435. Advanced Topics in Operations and Supply Chain Management (5). Advanced methods and models for planning, management, and decision making involving aspects of supply chain management operations including inventory, transportation, location, purchasing, and other related analyses. Emphasizes integration and coordination of resources for productivity improvement. Prerequisites: SCM 310 and admission to the major.

## SCM 475. Global Supply Chain

Management (5). Global supply chain activities emphasizing integration of transportation, inventory, warehousing, facility location, customer service, materials handling, packaging, and information. Analysis of product and service delivery and the associated trade, cultural, and legal factors and influences. Prerequisites: SCM 310 and admission to the major.
SCM 480. Supply Chain Strategy (5). Integration of concepts learned throughout supply chain curriculum into a combined analysis of comprehensive cases incorporating strategic and tactical decision making throughout the supply chain planning and implementation process. Prerequisites: SCM 310, SCM 435, and admission to the major.

## MANAGEMENT DEPARTMENT

Ellensburg (E)
Shaw-Smyser Hall, room 329
CWU-Des Moines (D)
CWU-Lynnwood (L)
509-963-3339
Fax: 509-963-2875
www.cwu.edu / ~cb/mgt
See the Web site for how this program
could be used for educational and career purposes.

## Faculty and Staff <br> Chair

Mark Pritchard, PhD (E)

## Professors

James P. Beaghan, DBA, marketing (D)
Laura M. Milner, PhD, marketing (E)
James L. Nimnicht, PhD, human resource management (E)
Don R. Nixon, PhD, management (D)

## Associate Professors

Peter J. Boyle, PhD, marketing (L)
Mark Pritchard, PhD, marketing (E)
F. Lynn Richmond, PhD, management (L)

## Assistant Professors

James Avey, PhD, human resource management (E)
S. Duane Hansen, PhD, management

Wendy Harman, PhD, management (D)
Larry Hughes, PhD, management (E)
Nancy Graber Pigeon, JD, business law (E)
William Perovaznik, ABD, management
Jeffrey L. Stinson, PhD, marketing (E)

## Bachelor of Science in Business Administration Program

The finance and SCM department and the management department jointly support the bachelor of science in business administration, the general business specialization and business minor. The department offers coursework leading to the bachelor of science in business administration (BSBA) degree. In addition to the university general education requirements, the BSBA major is comprised of three principal components: 1) pre-admission courses that provide foundation knowledge and skills needed for further study in business; 2) business core courses that build on the pre-admission group and focus on decision making in the main functional areas of business; and 3) specialization courses that allow for advanced study in one of the functional areas.

Students matriculating in Ellensburg select a 25 -credit specialization within the BSBA program in one of six areas: finance, general business, human resource management, management and organization,
marketing management, or supply chain management. Students matriculating at a university center are limited to the 25 -credit general business specialization.

## Program Goals for BSBA

The departments have identified overall educational outcomes related to knowledge, values, and skills for all BSBA graduates. Following are the outcomes for the bachelor of science in business administration (BSBA) programs:

1. Knowledge-based Educational Outcomes. Upon completion of the BSBA program, students should:

- Have a working knowledge of business administration that will aid them in private, government, or non-profit careers and / or prepare them for additional study

2. Values-based Educational Outcomes. Upon completion of the BSBA program, students should:

- Comprehend ethical issues and be able to apply an ethical decision-making framework to business decisions

3. Skills-based Educational Outcomes. Upon completion of the BSBA program., students should:

- Function effectively when in teams both as a leader and as a member
- Demonstrate effective oral communication skills
- Demonstrate effective written communication skills
- Apply quantitative and qualitative critical thinking skills to develop, access, and use information to analyze business problems and propose feasible solutions


## Transfer Credits and Prior Learning Assessment

Equivalent lower-division (100-200 level) courses may be transferred toward meeting the pre-admission requirements. Upperdivision (300- to 400-level) courses may also be transferred toward meeting the business core and specialization requirements, but only with the approval of the department chair and the college dean (or designee).

## Repeat Policy

Business administration courses may be repeated only once.

## Service to Other Majors

Students majoring outside of the College of Business who are required to take courses in this college for either their major or minor will be eligible to enroll on a space-available basis. These students will be given priority over other non-college majors wishing to enroll in upper-division courses.

## Bachelor of Science Business Administration Major

BSBA Program Admission Requirements
Students must apply and be accepted into the major prior to beginning 300- or 400-level business coursework. At the time of application, the 40 credits of preadmission coursework should be substantially completed. Application forms are available in the department offices and are accepted at new students orientations. The completed form must be accompanied by transcripts that reflect all prior college work. Admission shall be based on grades earned in the following courses:
ACCT 251 - Accounting I . . . . . . . . . . . . . . . . 5
ACCT 252 - Accounting II . . . . . . . . . . . . . . . . 5
BUS 221 - Introductory Business Statistics . . 5
MATH 130 - Finite Mathematics. . . . . . . . . . . 5
BUS 241 - Legal Environment of Business . . 5
ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
MATH 153 - Pre-Calculus Mathematics I . . . 5 OR
MATH 154 - Pre-Calculus
Mathematics II (5)
OR
MATH 170 - Intuitive Calculus (5)
OR
MATH 172 - Calculus I (5)
OR
MATH 173 - Calculus II (5)
Pre-admission Total Credits: 40

## Additional Admission Information

A cumulative grade point average of 2.5 in the above courses must be achieved with a minimum grade of $C$ - (1.70) in each course. The credit/no credit option will not be accepted for any of these courses. The applicant must have completed ENG 101/102. These criteria apply to equivalent courses transferred from other institutions.

Students who have met all of the above requirements will be admitted unless the number of applicants exceeds available space. In that case, acceptance will be competitive, based on a selection index.

Additional BSBA Graduation Requirements
The following special rules apply to students seeking the BSBA major:

- Students must earn a minimum cumulative GPA of 2.25 in the 99- to 100-credit in-the-major coursework to be eligible for a degree. In addition, the department requires a minimum GPA of 2.25 in the 59- to 60 -credit upper-division component of the in-the-major total.
- Transfer students must complete at least 40 College of Business credits at CWU to be eligible for the BSBA degree, including MGT 489. Additionally, students seeking a Human Resource Management specialization must complete HRM 486 at

CWU and students seeking a Marketing specialization must complete MKT 470 at CWU.

- The BSBA program requires a single specialization of at least 25 credits. Occasionally a student requests a second specialization. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique in this sense means the credits have not been used as part of any other BSBA specialization.
Pre-admission Requirements . . . . . . . . . . 40
Business Core Requirements
FIN 370 - Introductory Financial
Management
. 5
MGT 382 - Principles of Management ..... 5
MGT 489 - Strategic Management . . . . . . . . . 5
MIS 386 - Management Information Systems 5
MKT 362 - Essential Marketing Concepts . . . 5
SCM 310 - Supply Chain Management . . . . . 5
Business Core Total Credits: 30
Communication Requirement
Select from the following. . . . . . . . . . . . . . . 4-5
ADMG 385 - Business Communications and Report Writing (5)
COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Specialization Requirements
25
Select one of the following six specializations:
Finance
General Business
Human Resource Management
Management and Organization
Marketing Management
Supply Chain Management
Total Credits: 99-100


## General Business Specialization

## Advisors

All full-time faculty in the department.
This specialization is intended for the student who wishes to tailor a "unique" set of specialization courses to his or her needs or for the student who desires a broad-based "generalist" track within the business administration major. Twenty-five upper-division elective credits are required, including at least 20 credits from business (BUS), finance (FIN), human resource management (HRM), management (MGT), marketing (MKT), management information systems (MIS), or supply chain management (SCM) courses. The remaining five credits may be accounting (ACCT) or economics (ECON). The student is limited to 10 credits from any one area and the specialization must include at least 10 credits of 400-level courses.

General Business Specialization
Total Credits: 25

## Human Resource Management Specialization

Advisors
James Avey, PhD
Wendy Harman, PhD
Jim Nimnicht, PhD
Lynn Richmond, PhD
Students pursuing the HRM specialization will deal with fundamental organizational processes that must be developed and managed for continuous improvement by both HR specialists and by all managers in general. Thus, the study of HR takes on a dual emphasis. First, by pursuing an HR specialization, students will be thoroughly trained to focus decisionmaking as it pertains to the acquisition, utilization, development, and retention of employees. Alternatively, the study of HRM is also applicable as a strong supplement to other specializations or majors.

## Required Courses

HRM 381 - Management of Human
Resources . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
HRM 486 - Problems in Human Resource
Management
Select from the following. . . . . . . . . . . . . . 15
BUS 490 - Cooperative Education (1-12)
ECON 355 - Economics of Labor (5)
HRM 442 - Training and Development (5)
HRM 445 - Organizational Staffing (5)
HRM 479 - Industrial Relations/ Collective Bargaining (5)
HRM 488 - Compensation Policy and Administration (5)
MGT 386 - Principles of Organizational Behavior (5)
SCM 435 - Advanced Topics in Operations and Supply Chain Management (5)

## Human Resource Management <br> Total Credits: 25

## Management and Organization Specialization

## Advisors

S. Duane Hansen, PhD

Wendy Harman, PhD
Larry Hughes, PhD
Jim Nimnicht, PhD
Don Nixon, PhD
Lynn Richmond, PhD
The Management and Organization specialization reflects the diverse activities required to productively utilize the organization's resources. The overall focus of this specialization will be on how to effectively coordinate people, technology, and structure in order to reach organizational objectives. Studies include both the theory and practice of management as preparation for leadership in public and private organizations.

## Required Courses

MGT 386 - Principles of Organizational Behavior . $\qquad$
MGT 484 - International Management . . . . . 5
Select from the following . . . . . . . . . . . . . 15
BUS 490 - Cooperative Education (1-12)
ECON 352 - Managerial Economics (5)
HRM 381 - Management of Human Resources (5)
MGT 383 - Contemporary Management Practices (5)
MGT 384 - Introduction to International Business (5)
MGT 385 - Organizational Theory (5)
MGT 389 - Business and Society (5)
MGT 482 - Applied Management and Organizational Behavior (5)
MGT 483 - Organizational Change (5)
MGT 487 - Entrepreneurism and Small
Business Management (5)
SCM 435 - Advanced Topics in Operations and Supply Chain Management (5)

Management and Organization
Total Credits: 25

## Marketing Management Specialization <br> Advisors

Jim Beaghan, DBA
Peter Boyle, PhD
Mark Pritchard, PhD
Jeffrey Stinson, PhD
The marketing curriculum provides background for careers in sales, advertising, marketing management, research, analysis, and retail management. Marketing topics include researching and analyzing consumers, market demand, pricing, product distribution, and development, and communication in order to develop marketing strategies and policies.

## Required Courses

MKT 367 - Consumer Behavior . . . . . . . . . . . . 5
MKT 369 - Market Research . . . . . . . . . . . . . . 5
MKT 470 - Marketing Problems and Policy . 5
Select a minimum of 10 credits from
the following . . . . . . . . . . . . . . . . . . . . . . 10
BUS 490 - Cooperative Education (1-12)
ECON 310 - International Economics (5)
MKT 462 - Marketing Promotion
Management (5)
MKT 463 - Sales Force Management (5)
MKT 464 - Sports Marketing and Sponsorship (5)
MKT 467 - International Marketing (5)
Marketing Management Total Credits: 25

## Business Minor

Advisors
Any Department of Management or Department of Finance and SCM faculty member.

The business minor provides students with an introduction to several key areas of business administration. Students are admitted into the program when the completed minor application form is approved by a business administration minor advisor. Forms are available in the department offices. Students must earn a cumulative grade point average of 2.25 in courses allowed in fulfilling the business administration minor requirements.

## Required Courses

ACCT 301 - Financial Accounting Analysis
OR
ACCT 252 - Accounting II (5)
BUS 241 - Legal Environment of Business. . . 5
ECON 201 - Principles of Economics Micro . 5 OR
BUS 374 - Personal Investments (5)
HRM 381 - Management of Human
Resources
MGT 380 - Organizational Management. . . . 5
MKT 360 - Principles of Marketing . . . . . . . . 5
Total Credits: 30

## Sport Business Certificate

Advisors
Mark Pritchard, PhD
Jeffrey Stinson, PhD
The sport business certificate is designed to augment the student's College of Business degree with a focused examination of the sport business industry. Students will explore the application of marketing, management, law, finance, and other business principles as they apply specifically to the sport industry. The sport certificate will provide curriculum to prepare students for a career in corporate, professional, intercollegiate or amateur sport organizations.

Certificate prerequisites are admission to a College of Business major (except BS Economics-General Specialization.
Total Pre-admission requirements . . . . . . . 40
Required Courses
MGT 382 - Principles of Management . . . . . . 5
MGT 394 - Legal Considerations in
Sport Business . . . . . . . . . . . . . . . . . . . . . . . . 5
MKT 362 - Essential Marketing Concepts . . . 5
MKT 371 - Sponsorship and Promotion
in Sport Business . . . . . . . . . . . . . . . . . . . . . 5
MKT 372 - Revenue Generation and
Finance in Sport Business.
MKT 395 - Leadership in Sport
Organizations. . . . . . . . . . . . . .
MKT 464 - Sports Marketing and
Sponsorship.
Sales"Boot Camp
Sales "Boot Camp"
. 1
Certificate Credits: 36
Sport Business Certificate Total Credits: 76

## Business Courses

BUS 221. Introductory Business Statistics
(5). Introduction to inferential business statistics. Using probability distributions and information from samples for business decisions. Prerequisite: MATH 130 or equivalent.
BUS 241. Legal Environment of Business (5). An introduction to legal reasoning, ethics in business, the law of contracts, torts, agency, sales, bailments, and personal property.
Prerequisite: sophomore standing..
BUS 298. Special Topics (1-6).
BUS 321. Intermediate Business Statistics
(5). Sampling techniques, the design of experiments, analysis of variance, linear regression and correlation, and time series analysis. Prerequisite: BUS 221.
BUS 341. 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. Prerequisite: BUS 241.
BUS 374. Personal Investments (5).
Introduction to investment goals, strategies and securities, including certificates of deposit, money market instruments, stocks, bonds, and mutual funds. Additional topics introduced are risk analysis, taxes, and portfolio basics. Does not count for credit in the finance specialization.
BUS 396. Individual Study (1-6). Prerequisite: permission of instructor.
BUS 398. Special Topics (1-6).
BUS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. Grade will be $S$ or $U$.
BUS 495. Directed Research (1-5).
Prerequisite: permission of instructor. May
be repeated. Grade will be S or U .
BUS 496. Individual Study (1-6). Prerequisite: permission of instructor.
BUS 498. Special Topics (1-6).
BUS 499. Seminar (1-5).

## Human Resource Management <br> Courses

HRM 381. Management of Human Resources
(5). Selection of personnel, methods of training and retraining workers, wage policy, utilization of human resources, job training, administration of labor contracts, and public relations.
HRM 442. Training and Development (5). Application of training and development concepts and techniques used in assessing training requirements, planning and budgeting training programs, developing and facilitating training, and evaluating results. Prerequisite: HRM 381 and admission to the major or permission.

HRM 445. Organizational Staffing (5).
Applied and conceptual analysis of employee recruitment, selection, placement, retention, and career development. Prerequisite: MGT 382, and admission to the major, or permission.
HRM 479. Industrial Relations/Collective Bargaining (5). Statutory and case law governing labor relations. Contracts and negotiations. Impasse procedures. Arbitration cases and grievance procedures. Contemporary issues and cases. Prerequisite: HRM 381 and admission to the major or permission.
HRM 486. Problems in Human Resource Management (5). Analysis and research on selected topics involving contemporary issues in personnel management. This is the capstone course for the HRM specialization. Prerequisite: HRM 381 plus two HRM electives and admission to the major or permission.
HRM 488. Compensation Policy and Administration (5). Employee compensation policy and administration is studied on a broad perspective encompassing direct financial payments, employer benefits, and non-financial rewards. Prerequisite: MGT 382, and admission to the major, or permission.

## Management Courses

MGT 380. Organizational Management (5). Principles of management class for nonbusiness majors. Introduces students to the history and development of management ideas and contemporary practice. Overview of all the major elements of the managerial function. Only available for non-business majors. Students may not receive credit for both MGT 380 and MGT 382.
MGT 382. Principles of Management (5). History of management thought and practice, challenges of contemporary management, organizational theory, human behavioral aspects of management, introduce strategic management process. Only available to majors. Students may not receive credit for both MGT 380 and MGT 382.

MGT 383. Contemporary Management Practices (5). Exposure to and experience with contemporary management techniques and practices. Conceptual foundations are examined through casework, applied field activities, and team projects. Prerequisite: MGT 382 and admission to the major or permission.
MGT 384. Introduction to International Business (5). Principles underlying international business; national policies influencing world trade and finance; and regional and international institutions. Prerequisite: MGT 380 or MGT 382.
MGT 385. Organizational Theory (5). An examination of the socio-technical system in a task-oriented organization focusing on the total organization as the unit of analysis; technology, structure, work design, and environment as determinants
of effectiveness. Prerequisite: MGT 382 and admission to the major or permission.
MGT 386. Principles of Organizational Behavior (5). Applied and conceptual analysis of behavior within organizations. Involves leadership, motivation, communications, group processes, decisionmaking, climate, and culture. Prerequisite: MGT 380 or MGT 382.
MGT 388. Women in Management (3).
An examination of the ways in which American sex roles, together with corporate cultural practices and organizational structures, affect women's attainment of and performance in managerial roles within business, educational, and professional organizations. Prerequisite: MGT 382 and admission to the major or permission.
MGT 389. Business and Society (5). Ethics and social responsibility in an increasingly complex economic, political, social, and technological environments. Prerequisite: MGT 380 or MGT 382.
MGT 394. Legal Considerations in Sport Business (5). An exploration of the relationship between sports and the law. Issues to be explored include liability, legal rights of employees and athletes, as well as managing the legal risk in the sports profession. Prerequisite: admission to a College of Business major.
MGT 395. Leadership in Sport Organizations (5). Examination of historical and current practices in leading sport organizations, including coaching, owning, managing, and playing. Prerequisites: MGT 382 and admission to a College of Business major.
MGT 482. Applied Management and Organizational Behavior (5). Application of training and development practices to the personal and professional growth of the human resource. Individual and small group exercises give students the opportunity to apply and experience a variety of management concepts and practices. Prerequisite: MGT 382 and admission to the major or permission.
MGT 483. Organizational Change (5). Managing problem solving and change in organizations. An integration and application of theories adapted to organizational behavior. Prerequisite: MGT 382 and admission to the major or permission.
MGT 484. International Management (5). A comparative study of management in selected countries as well as an analysis of key managerial problems encountered in the multinational corporation. Prerequisite: student must be admitted to either the business administration or accounting major and have completed MGT 382.
MGT 487. Entrepreneurism and Small Business Management (5). Investigation of entrepreneurism and small business management issues. Students learn to perform feasibility studies and develop business plans. Small business challenges in marketing, finance, etc., will also be addressed. Prerequisite: MGT 382 and admission to the major or permission.

MGT 489. Strategic Management (5). Basic policy decisions involved in managing the total enterprise. Prerequisite: completion of FIN 370, MGT 382, MKT 362, SCM 310, and MIS 386, or ACCT 455.

## Marketing Courses

MKT 360. Principles of Marketing (5).
Principles of marketing class for nonbusiness majors. Explores the function and processes of marketing, introducing students to the fundamental marketing concepts. Prerequisite: only available for non-business majors. Students may not receive credit for both MKT 360 and MKT 362.

MKT 362. Essential Marketing Concepts (5). Introduction to the principles of marketing, creating, communicating, and delivering superior customer value, choosing target markets, managing customer relations. Students must be admitted to the major. Student may not receive credit for both MKT 360 and MKT 362.
MKT 367. Consumer Behavior (5). An introduction to analysis of the consumer as a basis for marketing decisions. The analysis concerns who buys what, how the consumer uses the product, the significance of the product to the consumer, and the buying process. Prerequisite: MKT 362, and admission to the major, or permission.
MKT 369. Market Research (5). Application of research to economic and business problems; tools of research design; planning investigations; gathering, organizing, and interpreting data; and presentation of findings. (Not open to students with credit in ECON 426.) Prerequisites: MKT 360 or MKT 362, and admission to the major or permission.
MKT 371. Sponsorship and Promotion in Sport Business (5). Examination of sport sponsorship, sales, implementation, and evaluation; communication between sport sellers and consumers through advertising, sales promotion, public relations, and other forms of communication. Prerequisite: MKT 362 and admission to a College of Business major.
MKT 372. Revenue Generation and Finance in Sport Business (5). Examination of historical and current practice in revenue generation and financing of sport organizations, including public and private sources of revenue. Prerequisites: MKT 362 and admission to a College of Business major.
MKT 398. Special Topics (1-6).
MKT 462. Marketing Promotion
Management (5). Communication problems of marketing goods and services to consumers and industrial buyers; advertising management, personal selling, and sales promotion; analysis for the promotion mix; and public interest in marketing communication. Prerequisite: MKT 362, and admission to the major, or permission.

MKT 463. Sales Force Management (5). Integration of sales force into the total marketing program of the firm; emphasizes organization, coordination, recruiting, training and incentives; develops methods for analyzing market demand and evaluation of sales force performance. Prerequisite: MKT 362 and admission to the major or permission.
MKT 464. Sports Marketing and Sponsorship (5). This course takes a strong industry focus to the study of sports marketing. Work examines the range of promotional strategies and tactics used by different leagues/sport businesses to attract and retain sports fans. Additional topics include the nature of effective sports sponsorship campaigns. Prerequisite: MKT 362 and admission to the major or permission.
MKT 467. International Marketing (5). Marketing functions involved in doing business overseas, environmental conditions affecting overseas trade, and problems of securing employment overseas. Prerequisite: MKT 362 and admission to the major or permission.
MKT 470. Marketing Problems and Policy
(5). The capstone course for the marketing specialty. Uses case analysis and other techniques to develop marketing-decision skills and policy determination abilities. Prerequisites: MKT 362, MKT 367, and MKT 369. Also one marketing elective. Senior standing plus admission to the major or permission of the instructor.

## COLLEGE OF EDUCATION AND PROFESSIONAL STUDIES

## Administration and Organization

Interim Dean: Connie Lambert, PhD (Black Hall, room 228)

Associate Dean: Ethan Bergman, PhD (Black Hall, room 228)

Interim Associate Dean: Rexton Lynn (Black Hall, room 228)

509-963-1411
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www.cwu.edu / ~ceps /
The primary role of the College of Education and Professional Studies (CEPS) is to support the mission of the university by offering and supporting educational opportunities of the highest quality for students. The mission of the college is to prepare enlightened leaders for the professions and for society - leaders who will commit themselves to socially responsible citizenship in a global society.

From the college's perspective, its role is fulfilled by creating and nurturing an academic environment where quality and excellence are synonymous with achievement. Each academic unit of the college has developed specific goals and objectives to complement this mission.

## Department Chairs

Advanced Programs: Henry Williams, EdD
(Black Hall, room 241-25)
Aerospace Studies (AFROTC): John Armour, Lt. Colonel, USAF (Peterson Hall, room 203)
Aviation: Amy Hoover, PhD (Black Hall, room 225-1)
Education Foundations \& Curriculum: Barry Donahue, EdD (Black Hall, room 101)
Family and Consumer Sciences: Jan S. Bowers, PhD (Michaelsen Hall, room 100)
Industrial and Engineering Technology: Michael Whelan, PhD (Hogue Hall, room 107)
Information Technology and Administrative Management: Robert Lupton, PhD (ShawSmyser Hall, room 203)
Language, Literacy, and Special Education: Craig Hughes, PhD (Black Hall, room 205)
Military Science (ROTC): Gregory P. Solem, Lt. Colonel (Peterson Hall, room 202G)
Physical Education, School and Public Health: Kenneth Briggs, EdD (Physical Education Bldg., room 114)
Nutrition, Exercise and Health Sciences: Vincent Nethery, PhD (Physical Education Bldg., room 114)
Teaching in Elementary, Adolescent and Young Children: David Shorr, PhD (Black Hall, room 101)

## Center for Teaching and Learning

The Center for Teaching and Learning (CTL) is the National Council for Accreditation of Teacher Education (NCATE) accredited unit that provides oversight for all CWU school personnel preparation programs. The CTL is intended to facilitate communication between and among the respective disciplines that contribute to the preparation of educators. CTL programs include the preparation of teachers, school administrators, school counselors, and school psychologists.

The mission of the center is played out through its theme: Preparing Facilitators of Learning in a Diverse World. To accomplish this mission, private and public school teachers, administrators, counselors, and psychologists from around the state join university faculty who represent the three colleges mentioned above, to establish a professional community. This professional community reaches all corners of CWU and extends to the world of schooling. Representatives of this professional education community merge under the aegis of the CTL to: (1) design, deliver, and renew candidate
recruitment, admission, and retention policies, and procedures; (2) to assess, as an aggregate, candidate knowledge, skills, and dispositions; and (3) to evaluate the efficacy of the CTL for the purpose of maintaining a state approval and national accreditation status.

## Conceptual Framework

Supporting the mission, purpose, and governance structure of the CTL is the constructivist philosophy. This philosophy asserts that:

1. Knowledge is actively created by the learner
2. Knowledge is constructed or made meaningful when learners relate new information to prior knowledge or existing structures of knowledge
3. Knowledge constructs are shaped by experience and social interaction
4. Members of a culture collaboratively establish knowledge.
The CTL director is Connie Lambert. For information about the School Administrator program, contact the education department. For information about the school counselor and school psychologist programs, contact the of psychology department.

## Teacher Preparation Program General Information

The Teacher Preparation Program is administered through CEPS and the CTL executive board. The provost/senior vice president for academic affairs in collaboration with the CEPS dean appoints faculty to serve on the advisory council, which advises the CTL executive board on program policies.

## Admission Requirements

Admission to the university does not guarantee a student admission into the Teacher Preparation Program. Students must be at least conditionally admitted to the Teacher Preparation Program prior to enrolling in any of the Block I courses in the professional education foundation program.

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

1. A 3.0 grade point average (GPA) for at least the last 45 graded quarter credits (the total may exceed 45 if an entire quarter is needed to achieve the minimum 45) is required for full admittance into the

Teacher Preparation Program. A 2.8 GPA for at least the last 45 graded quarter credits will be considered for conditional admittance into the Teacher Preparation Program. A 3.0 GPA for at least the last 45 graded quarter credits is required prior to making application to student teaching. Official or unofficial transcripts for all college/ university coursework must be submitted directly to the Teacher Certification office. These transcripts are in addition to transcripts submitted to Registrar Services.
2. Completed APPLICATION FOR ADMISSION TO TEACHER EDUCATION.
3. Completed Character and Fitness supplement. Answering "YES" to any question on the form will require that you meet with the Certification Officer prior to a decision regarding admission. All court documents should be submitted prior to that meeting. False answers to the questions on the form may result in denial of program admission and/or certification.
4. Minimum score of 24 on each of two RECOMMENDATION FORMS completed by teachers, employers, or professors (one must be from a professor or teacher). Forms may not be completed by a relative.
5. Signed FINGERPRINTING/ CERTIFICATION REQUIREMENT form. Fingerprint clearance is not required for admission to the program unless you have answered "yes" on the Character and Fitness supplement.
6. Pass the WEST-B examination.
7. Completion of one of the following:

- Prerequisite Courses: ENG 101 and 102, and MATH 101, 153, 154, 164, 170, or 172 (with a grade of C or higher in each of the three prerequisite courses.)
- Bachelor's degree from an accredited institution
- A Direct Transfer Agreement (DTA) associate degree

8. Proof of purchase of the College Live Text Edu Solutions software program (i.e., copy of receipt).

Software can be purchased directly from livetext.com or from the Wildcat Shop. For those students applying to one of the University Centers, you will not be required to purchase the LiveText software until you have been accepted into the cohort program.
9. Submission of the Dispositional Survey. Once you activate your LiveText account, you are automatically sent the Dispositional Survey. It is located in your Forms box which is under the Tools section of LiveText. Once you complete the survey, click the submit button. Please call 509-963-2660 if you have any questions.

## WEST-B Test

All individuals applying for admission to CWU's Teacher Preparation Program are required to meet the minimum passing score on the WEST-B (Washington Educator Skill Test - Basic). This exam is administered statewide six times each year. Registration information and test dates can be found online at www.west.nesinc.com.

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

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

## Please be aware that:

No grade lower than a C in major or minor, required English composition courses, and foundation coursework, and no grade lower than a C-in basic and breadth coursework will be accepted for certification.

To remain in the program, students must maintain a 3.0 GPA for the last 45 graded credits earned.

Each applicant for admission to the Teacher Preparation Program will be notified in writing of the status of his or her application.

Completion of the Teacher Preparation Program does not guarantee certification by the state of Washington. In order to be certified, the candidate must demonstrate good moral character and personal fitness as defined by WAC 180-79A-155. Fingerprint clearance from the Washington State Patrol and FBI will be required prior to application for practicum, pre-autumn and / or student teaching. If you have anything from your past that you think may compromise your certification, please seek advisement from the Certification Officer at 509-963-2660 prior to submitting your application.

Teacher Preparation Program admission regulations are administered by the associate dean. Personal folders are maintained in the Teacher Certification office for each student enrolled in a teaching program at Central.

## Transfer Students

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

## WEST-E Test

All teachers wishing to obtain certification after 8/31/05 must take the WEST-E test in each content area for which they seek endorsement prior to student teaching. Documentation (i.e., registration confirmation, test scores) that the student has registered for the exam must be submitted to the teacher Certification Office prior to applying for student teaching. Final certification will not be awarded until successful completion of the WEST-E is earned. Test information and registration is online at www.west.nesinc.com.

## Alternative Admissions Procedures to Teacher Preparation

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

## PROCEDURE

1. Applications will be made in writing to the candidate admissions, recruitment, and retention committee in care of the CEPS associate dean. The deadline for application will be the first Friday of the quarter preceding the quarter admission is desired (fall quarter applicants deadline will be the first Friday of spring quarter.). The written application will include the following:
a. A letter from the applicant's major advisor that supports the following:

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

2. An interview with the Candidate Admissions, Recruitment, and Retention committee (CARR) may be required.
3. Those admitted will be monitored on a quarterly basis by the CARR committee, and will meet all admission requirements prior to student teaching.
4. Students who have been admitted to the Teacher Preparation Program via the CARR committee will receive personal guidance to facilitate completion of their undergraduate degrees and receipt of their certificates.
5. For further information, contact the associate dean or designee.

## Graduation/Certification Requirements for Teacher Preparation Program

1. No grade lower than a C in major, minor, composition courses, and professional education foundation courses
2. Minimum GPA of 2.5 in major, minor, and professional education foundation courses
3. Minimum GPA of 3.0 for last 45 graded quarter credits (the total may exceed 45 if an entire quarter is needed to achieve the minimum 45)

## Major and Minor Concentrations

To achieve certification, students must select a major which leads to a university endorsement for teaching in schools in Washington.

The following majors are endorsements offered at CWU. Students should contact the departments to request information about major requirements.

## Endorsable Majors

Biology: Teaching Major
Chemistry: Teaching Major
Early Childhood Education Major
Earth Science Major
Elementary Education Major
English Language Arts: Teaching Major
Family and Consumer Sciences Vocational: Teaching Major
Foreign Languages: Teaching, Foreign Languages: Teaching Broad Area: Chinese, French, German, Japanese, and Russian Health/Fitness: Teaching K-12 Major History: Teaching Broad Area Major Industrial Education Major
Mathematics: Teaching Secondary Major
Music: Broad Area Specialization
Music: Choral Music Specialization
Music: Instrumental Music Specialization
Physics Major

Social Science: Teaching Secondary Major Spanish
Special Education Broad Area
Special Education P-12
Theatre Arts
Visual Art: Teaching Major
A major endorsement will be required to obtain a teaching certificate. Minor endorsements are optional. The following minors are endorsements offered at CWU. Students should contact the departments to request information about requirements.

## Endorsable Minors

Bilingual Education Minor
Biology Teaching Secondary Minor
Chemistry Teaching Minor
Dance Teaching Minor
Early Childhood Education Minor
Earth Science Minor
Mathematics: Teaching Secondary Minor
(Math minor will not be endorsed if
combined with Elementary Education
major, unless student teaching is also done

## in the math area.)

Middle Level Math Minor
Middle Level Science Minor
Physics Minor
Reading Minor

## Certification

Central is in compliance with the No Child Left Behind federal legislation. It is a public institution that is accredited both regionally and nationally.

CWU is accredited by the Northwest Commission on Colleges and Universities (NWCCU). NWCCU is recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the regional authority on educational quality and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

Additionally, CTL, the unit that oversees all CWU teacher preparation programs, is accredited by the National Council for the Accreditation of Teacher Education (NCATE). NCATE accreditation recognizes CTL as meeting national standards for the content and operation of the unit and ensures performance of a teacher candidate in the program has been thoroughly assessed before he or she is recommended for licensure. It also ensures that programs meet standards set by the teaching profession at large.

CWU's Teacher Preparation Program is approved by the Washington State Board of Education to offer programs which lead to teacher certification. To be awarded Washington certificates, candidates must be at least 18 years of age.

Graduates of the Teacher Preparation Program are legally qualified for certification in states which are party to the interstate certification compact.

## Residency Certificate

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

## Professional Certificate

Candidates for the Professional Certificate must meet the following requirements:

- Complete provisional status as a teacher in a public school pursuant to RCW 28 A .405 .220 or the equivalent in a state board of education approved private school
- Complete an approved professional certificate program which has been collaboratively developed by the college/ university and the respective Professional Education Advisory Board (PEAB)
- Demonstrate competency in three standards (i.e., effective teaching, professional development, and professional contributions) and the 12 criteria relevant to the three standards
The Professional Certificate at CWU is comprised of 15 quarter credits over three sections:


## ECTL 601: Pro. Cert. Pre-assessment Seminar

 (4 quarter credits)Candidates attending this seminar will review standards and criteria for professional certification and, with guidance from their district and university team members, identify evidence/indicators to meet each criterion using the common professional growth plan format. The pre-assessment seminar will culminate with the approval of the professional growth plan by the professional growth team.

## Professional Growth Core

(9 quarter credits)
The core of the professional growth plan will differ depending on individual professional development needs of candidates. Candidates may choose to enroll in college courses for credit or enroll in professional development courses. These courses may involve attending workshops and / or conferences, participating in district in-service and staff development activities, completing independent research projects or internships, or other activities as recommended by the professional growth team; or combine college courses and professional development courses in order to successfully meet program criteria.

## ECTL 609: Pro. Cert. Culminating Seminar

 (2 quarter credits)Evidence for each of the professional certificate criteria will constitute a portfolio,
which will be submitted in electronic and paper formats to the professional growth team for evaluation prior to the culminating seminar. Candidates attending this seminar will present final documentation and evidence of professional certificate level knowledge, skill, and performance. The professional growth team will evaluate the portfolio relative to the requirements of the professional certificate and, if the portfolio meets all criteria, make a recommendation for professional certification to the CWU teacher Certification Office.

- Complete the child abuse coursework requirement
Contact the teacher Certification Office for more information regarding this program.


## Endorsement-only Program

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

## Certification Only

Candidates with a bachelor's degree who desire certification must follow the guidelines for admission to teacher preparation. Certification-only students may earn the residency teaching certificate by satisfactorily completing the professional foundation courses and at least one college endorsement program. Final approval of the college endorsement program lies with the individual's content area. The certificationonly program can usually be completed within five to six quarters.

## Continuing Certificate

Candidates for the continuing certificate must meet the following requirements:

- Have a valid initial teaching certificate
- Verify at least one year of full-time teaching experience
- Complete 45 credits of upper-division (300-level or higher) coursework, including courses in abuse, staff development and supervision, research and evaluation, and referral agencies

Application forms and further information can be obtained from the associate dean's office in Black Hall, room 228.

To qualify for endorsement to teach in more than one specialization, students must meet the requirements for each specialization. Experienced teachers may petition the Director of Field Experiences for permission to student teach for less than the normal 16 credits.

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

## Recency of Coursework

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

## AEROSPACE STUDIES (AIR FORCE ROTC)

Ellensburg
Peterson Hall, room 203

509-963-2314
800-CWU-ROTC
Fax: 509-963-2235
www.cwu.edu / ~afrotc
See Aerospace Studies (Air Force ROTC)
Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Colonel John E. Armour, Jr., MA, human relations; and MA, military operational art and science

## Assistant Professor

Major Matthew G. Wilson, MA, instrumental conducting

## Staff

Staff Sergeant Jeremy S. McLane, noncommissioned officer-in-charge, personnel
Staff Sergeant Jerome A. Yates, noncommissioned officer-in-charge, knowledge operations management
Kendra L. Sterkel, program coordinator

## Department Information

The United States Air Force Reserve Officer Training Corps (AFROTC), represented at CWU by Detachment 895, develops quality leaders in preparation to be commissioned as second lieutenants in the U.S. Air Force. Upon completing a baccalaureate / master's degree and all officer qualifications, graduates are commissioned and enter active duty. The program is designed to work with your other academic courses and is taught by active duty officer/ professors. The Air Force is seeking qualified candidates from under-represented groups including women, African-Americans, Hispanics, Asian/Pacific Islanders, and Native American / Alaskan Natives.

The program is designed to educate students about aerospace studies, with a leadership lab to provide a unique opportunity to practice leadership skills. The Aerospace Studies courses cover an
introduction to the Air Force, history, leadership, and regional studies / preparation for active duty. Between the sophomore and junior year, students attend a 4 -week field training encampment, where they are introduced to an intensive training environment designed to teach critical teamwork, leadership, and fellowship skills. Each year there is also an opportunity to visit an Air Force base to see the environment and meet members of the Air Force. All textbooks, materials, and uniforms are provided.

## Admission Requirement

Students from any academic major degree program with a minimum 2.0 cumulative GPA are eligible. Enrollment in the freshman and sophomore classes creates no obligation to the Air Force. A contractual agreement is required after the sophomore year to continue in the ROTC program. Students are eligible to compete for an enrollment allocation into the POC only after successfully passing the Air Force Officer Qualification Test (AFOQT), a medical examination and physical fitness test.

## Transfer Students

Students transferring from other institutions who are interested in pursuing a commission in the Air Force should contact the Unit Admissions Officer.

## Scholarships

AFROTC competitive merit scholarships are available and awarded to both nontechnical and technical majors. A scholarship will normally cover tuition, fees, and books. Those who have never been a full-time college student may apply for a four-year AFROTC scholarship at www.afrotc.com by December 1 (the year prior to attending college). College freshmen and sophomores may apply for three-year and two-year scholarships, respectively. All contracted cadets in good standing receive a monthly stipend, separate from any scholarships.

## Special Training Opportunities

There are a variety of summer programs available to enhance a student's knowledge of the Air Force. Opportunities such as base visits, flying, parachuting, Air Force Office of Special Investigations, engineering, space orientation, as well as trips to other countries to enhance cultural awareness or language immersion. All travel and meals are provided.

## Aerospace Studies Minor

AFROTC courses are accredited and may be taken as an academic minor or as free electives. The Aerospace Studies minor is awarded upon successful completion of the required courses.

## Required Courses

AFRO 301 - Air Force Leadership Studies . . 3
AFRO 302 - Air Force Leadership Studies . . 3

AFRO 303 - Air Force Leadership Studies . . 3
AFRO 401 - National Security Affairs and Preparation for Active Duty $\qquad$ AFRO 402 - National Security Affairs and Preparation for Active Duty $\qquad$ AFRO 403 - National Security Affairs and Preparation for Active Duty

Total Cred

## Aerospace Studies Courses

AFRO 101. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership and professionalism, and an introduction to communicative skills.
AFRO 101LAB. GMC Leadership Laboratory (2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, and opportunities available to commissioned officers. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 101. Grade will be $S$ or U.
AFRO 102. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership and professionalism, and an introduction to communicative skills.
AFRO 102LAB. GMC Leadership Laboratory
(2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, and opportunities available to commissioned officers. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 102. Grade will be $S$ or $U$.
AFRO 103. Foundations of the USAF (1). A survey course briefly overviewing Air Force structure, missions, organizations, officership and professionalism, and an introduction to communicative skills.
AFRO 103LAB. GMC Leadership Laboratory (2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, and opportunities available to commissioned officers. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 103. Grade will be $S$ or $U$.
AFRO 201. The Evolution of USAF Air and Space Power (1). Through historical examples, we examine the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.
AFRO 201LAB. GMC Leadership Laboratory (2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 201. Grade will be S or U.
AFRO 202. The Evolution of USAF Air and Space Power (1). Through historical examples, we examine the development of Air Force capabilities and missions to
demonstrate the evolution of today's USAF air and space power.
AFRO 202LAB. GMC Leadership
Laboratory (2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 202. Grade will be S or U.
AFRO 203. The Evolution of USAF Air and Space Power (1). Through historical examples, we examine the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.
AFRO 203LAB. GMC Leadership Laboratory (2). Practical experience in Air Force customs and courtesies, physical fitness, drill and ceremonies, giving military commands, and preparation for field training. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 203. Grade will be S or U.
AFRO 296. Individual Study (1-3).
Prerequisite: permission of department chair. May be repeated.
AFRO 298. Special Topics (1-6).
AFRO 301. Air Force Leadership Studies
(3). Provides leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer.
AFRO 301LAB. POC Leadership Laboratory (2). Students plan, organize, coordinate, and direct cadet corps and physical fitness activities, enhancing communication, management, and other leadership skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 301. Grade will be S or U.
AFRO 302. Air Force Leadership Studies (3). Provides leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. AFRO 302LAB. POC Leadership Laboratory (2). Students plan, organize, coordinate, and direct cadet corps and physical fitness activities, enhancing communication, management, and other leadership skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 302. Grade will be S or U.
AFRO 303. Air Force Leadership Studies (3). Provides leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. AFRO 303LAB. POC Leadership Laboratory (2). Students plan, organize, coordinate, and direct cadet corps and physical fitness activities, enhancing communication,
management, and other leadership skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 303. Grade will be $S$ or $U$.
AFRO 350. Four-week Summer Field Training (3). Organization, operation, and mission of an Air Force base; physical conditioning; applied leadership training and evaluation; marksmanship; survival orientation; and field exercises. Grade will be $S$ or $U$.
AFRO 351. Six-week Summer Field Training
(4). Organization, operation, and mission of an Air Force base; physical conditioning; applied leadership training and evaluation; marksmanship; survival orientation; field exercises. Grade will be $S$ or U.
AFRO 398. Special Topics (1-6).
AFRO 401. National Security Affairs and Preparation for Active Duty (3). Examines national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
AFRO 401LAB. POC Leadership Laboratory
(2). Advanced leadership experiences involving planning and conducting cadet training and physical fitness activities, oral and written communications, and developing human relations skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 401. Grade will be $S$ or U.
AFRO 402. National Security Affairs and Preparation for Active Duty (3). Examines national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
AFRO 402LAB. POC Leadership Laboratory
(2). Advanced leadership experiences involving planning and conducting cadet training and physical fitness activities, oral and written communications, and developing human relations skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 402. Grade will be S or U .
AFRO 403. National Security Affairs and Preparation for Active Duty (3). Examines national security process, regional studies, advanced leadership ethics, Air Force Doctrine, officership, military justice, and preparation for active duty.
AFRO 403LAB. POC Leadership Laboratory
(2). Advanced leadership experiences involving planning and conducting cadet training and physical fitness activities, oral and written communications, and developing human relations skills. Two hours weekly plus mandatory physical training. Must be taken concurrently with AFRO 403. Grade will be $S$ or U.
AFRO 496. Individual Study (1-3).
Prerequisite: permission of department chair. May be repeated.
AFRO 498. Special Topics (1-6)

# AVIATION DEPARTMENT 

Ellensburg
Flight Technology Center
807 Elmview Road
509-963-2364
Fax: 509-963-2377
CWU-Moses Lake
7662 Chanute Street NE
Moses Lake, WA 98837
509-793-2355 or 509-793-2914
Fax: 509-762-1918
www.cwu.edu / ~flight
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Amy Hoover, PhD
Professor
Dale Wilson, MS, aviation safety, human factors, aviation weather, simulators

## Associate Professors

Amy Hoover, PhD, mountain flying, meteorology, human factors
Teresa Sloan, MIT, FAA ground schools, air transportation, simulators

## Lecturer

Alain R. Garcia, BA

## Staff

Camie Hedrick, secretary

## Department Information

The Department of Aviation offers bachelor of science degrees including flight officer, commercial pilot, aviation management, airway science aircraft systems management, and airway science aviation maintenance management specializations at the Ellensburg campus. A minor in flight technology is also offered. The aviation management specialization is offered at CWU-Moses Lake. The department provides an educational service to students wanting a career in aviation.

## Accrediting Information

The aviation department holds an FAA Air Agency certificate. Ground schools and flight labs are conducted under FAR 141 of the Federal Aviation Administration regulations. CWU aviation department is a member of the University Aviation Association.

## Department Standards Admissions

Students must apply for acceptance into a flight technology specialization. Application will be reviewed upon acceptance to CWU.

Admission decisions are based on a number of factors including grade point average, SAT / ACT scores, letters of recommendation, financial capability, and a written statement of purpose, as outlined in the aviation department application form. Transportation Security Administration (TSA) regulations require proof of citizenship for pilots.

## Financial Obligations

Flight training fees are paid by the student and will be in addition to normal university tuition and fees (see aviation department Web site for current fees). Additional fees are required for FLT 444, FLT 445, and FLT 489 (see online student registration handbook). Additional costs for students enrolled in flight labs include current FAA charts, pilot supplies, and optional personal aviation headphones.

## Bachelor of Science Flight Technology Major Flight Officer Specialization

Completion of this specialization assists preparation for professional pilot positions within the airline industry. To graduate, students must complete the commercial pilot certificate*, multiengine rating, and certified flight instructor certificate at Central's approved flight training operator at Bowers Field in Ellensburg, Washington.** A minor is required.
*Except as provided in approved articulation agreements.
**Once a student has enrolled at Central, all subsequent flight training must be conducted by Central's approved flight training operator and shall be done in a manner approved by the FAA under FAR Part 141.

## Required Courses

FLT 101 - Private Pilot Flight Laboratory I . . 1
FLT 102 - Private Pilot Flight Laboratory II . 1
FLT 103 - Private Pilot Flight Laboratory III 1
FLT 130 - Introduction to Aviation . . . . . . . . . 1
FLT 141 - Principles of Flight I . . . . . . . . . . . . 4
FLT 142 - Principles of Flight II . . . . . . . . . . . 4
FLT 201 - Instrument Pilot Flight
Laboratory I.
. 1
FLT 202 - Instrument Pilot Flight
Laboratory II . . . . . . . . . . . . . . . . . . . . . . . 1
FLT 203 - Instrument Pilot Flight
Laboratory III . . . . . . . . . . . . . . . . . . . . . . . . 1
FLT 211 - Meteorology for Pilots .......... . . 4
FLT 221 - Aircraft Systems I . . . . . . . . . . . . . . 3
FLT 232 - History of Aviation ................ . . 2
FLT 241 - Instrument Flight I . . . . . . . . . . . . . 3
FLT 242 - Instrument Flight II . . . . . . . . . . . . . . 2
FLT 301 - Certified Flight Instructor
Laboratory .1

FLT 304 - Commercial Pilot Flight Laboratory I 1

FLT 305 - Commercial Pilot Flight Laboratory II1

FLT 306 - Commercial Pilot Flight
Laboratory III
FLT 312 - Aviation Weather Services . . . . . . . 3
FLT 319 - Applied Aerodynamics for Pilots . 3
FLT 322 - Aircraft Systems II . . . . . . . . . . . . . . 3
FLT 323 - Advanced Navigation . .......... . . 2
FLT 333 - Air Transportation . . . . . . . . . . . . . . 4
FLT 337 - Aviation Physiology and Survival 3
FLT 340 - Human Factors in Flight . . . . . . . . 3
FLT 348 - Air Carrier Operations . . . . . . . . . . 3
FLT 352 - Multiengine Principles . . . . . . . . . . . 2
FLT 354 - Commercial Pilot . . . . . . . . . . . . . . . 4
FLT 358 - Fundamentals of Flight Instruction 4
FLT 401 - Multiengine Flight Laboratory . . . 1
FLT 417 - Aviation Safety Management .... 3
FLT 422 - Aircraft Systems III . . . . . . . . . . . . . 3
FLT 444 - Multiengine Simulator, EFIS . . . . . 2
FLT 445 - Multiengine Simulator, Turboprop 2
FLT 489 - Pilot Performance . . . . . . . . . . . . . . 2
Department-approved electives . . . . . . . . . . 10

Total Credits: 90

## Bachelor of Science Commercial Pilot Specialization

Completion of this specialization assists preparation for commercial aviation employment opportunities. To graduate, students must complete the commercial pilot certificate* at Central's approved flight training operator at Bowers Field in Ellensburg.** A minor is required.
*Except as provided in approved articulation agreements.
**Once a student has enrolled at Central, all subsequent flight training must be conducted by Central's approved flight training operator, and shall be done in a manner approved by the FAA under FAR Part 141.

## Required Courses <br> Required Courses

FLT 101 - Private Pilot Flight Laboratory I . . 1
FLT 102 - Private Pilot Flight Laboratory II . 1
FLT 103 - Private Pilot Flight Laboratory III 1
FLT 130 - Introduction to Aviation . . . . . . . . . 1
FLT 141 - Principles of Flight I . . . . . . . . . . . . 4
FLT 142 - Principles of Flight II . . . . . . . . . . . 4
FLT 201 - Instrument Pilot Flight Laboratory I
. 1
FLT 202 - Instrument Pilot Flight
Laboratory II . . . . . . . . . . . . . . . . . . . . . . . . 1
FLT 203 - Instrument Pilot Flight Laboratory III
FLT 211 - Meteorology for Pilots . . . . . . . . . . 4
FLT 221 - Aircraft Systems I . . . . . . . . . . . . . . 3
FLT 232 - History of Aviation . . . . . . . . . . . . . 2
FLT 241 - Instrument Flight I . . . . . . . . . . . . . 3
FLT 242 - Instrument Flight II . . . . . . . . . . . . . 2
FLT 304 - Commercial Pilot Flight Laboratory I1
FLT 305 - Commercial Pilot Flight Laboratory II ..... 1
FLT 306 - Commercial Pilot Flight Laboratory III .....  1
FLT 312 - Aviation Weather Services ..... 3FLT 319 - Applied Aerodynamics for Pilots . 3
FLT 322 - Aircraft Systems II3Plot Flight LaboratoryFLT 103 - Private Pilot Flight Laboratory III 11
Select Either. .5
HRM 381 - Management of HumanResources (5)

MGT 386 - Principles of Organizational Behavior (5)
Select Either. . . . . . . . . . . . . . . . . . . . . . . . . . . 5
BUS 241 - Legal Environment of Business (5)
MGT 360 - Principles of Marketing (5)
Select a minimum of 10 upper-division credits from the following:. . . . . . . . . . . . 10
Courses with a prefix of AFRO, ECON, IET, IT, ITAM, MSL, or SHM.
ENG 310 - Technical Writing (4)
POSC 320 - Public Administration (5)
Department-Approved Electives. . . . . . . . . 18 Any FLT course not used in required courses
Any course with a prefix of AFRO, BUS, ECON. IET, IT, ITAM, MSL or SHM
MATH 153 or higher (except MATH 164)
FLT 330 - Aviation Law ...................... 3
FLT 335 - Aviation Management .......... 3
FLT 337 - Aviation Physiology and Survival 3
FLT 354 - Commercial Pilot . . . . . . . . . . . 4
FLT 417 - Aviation Safety Management . . . 3
Department-approved FLT electives . . . . . . 14
Department-approved electives . . . . . . . .

Total Credits: 83

## Bachelor of Science <br> Aviation Management Specialization

This degree prepares pilots and nonpilots for a variety of administrative and management positions in aviation. Credit for flight training under FAR 61 or FAR 141 as elective courses for this specialization must be approved by an aviation department advisor. A minor is required. Total college business courses applied to this degree must not exceed 22 credits.

## Required Courses

ACCT 301 - Financial Accounting Analysis 5
BSED 389 -Desktop Publishing ..... 3
COM 345 - Business and Professional Speaking ..... 4
ECON 201 - Principles of Economics Micro . 5
FLT 330 - Aviation Law5
3
FLT 333 - Air Transportation ..... 4
FLT 334 - Airport Management. .....  3FLT 417 - Aviation Safety Management .... 3 3
MATH 130 - Finite Mathematics5
and Methods .....  5
MGT 380 - Organizational Management .....  5
Select Either. ..... 3-4
FLT 434 - Airport Operations (3)FLT 438 - Planning and Design ofAirports (4)Resources (5)Behavior (5)

Total Credits: 91-92

## Bachelor of Science Airway Science, Aviation Maintenance Management Specialization

Students enrolling in this specialization must already possess an FAA Airframe and Powerplant certificate from a Federal Aviation Administration approved Part 147 school. (Certificate not offered at Central Washington University.) Forty-five credits of the Airframe and Powerplant certificate will be accepted upon completion of all other degree requirements. Total college business courses applied to this degree must not exceed 22 credits.

## Required Courses

Airframe and Powerplant Certificate* . . . . 45
CHEM 101 - Contemporary Chemistry .... 5
OR
CHEM 111 - Introduction to Chemistry
CHEM 111LAB - Introductory
Chemistry Laboratory
OR
CHEM 181 - General Chemistry I
CHEM 181LAB - General Chemistry Laboratory I
FLT 330 - Aviation Law . . . . . . . . . . . . . . . . . . 3
FLT 333 - Air Transportation . . . . . . . . . . . . . . . 4
FLT 335 - Aviation Management . . . . . . . . . . 3
FLT 417 - Aviation Safety Management . . . . 3
MATH 130 - Finite Mathematics . . . . . . . . . . 5
OR
Department-approved MATH electives (5)
MGT 380 - Organizational Management ... 5
BUS 221 - Introductory Business Statistics . . 5
OR
MATH 311 - Statistical Concepts and Methods (5)
Department-approved Electives .......... 12

## Choose from:

ADMG 385 - Business Communications and Report Writing (5)
OR
ENG 310 - Technical Writing (4)
OR any course with a prefix of FLT, IET, MET or SHM

Total Credits: 90

* Certificate not offered at Central Washington University. Forty-five credits of the Airframe and Powerplant Certificate will be accepted upon completion of all other degree requirements. See program advisor.


## Flight Technology Minor

A program designed for students who wish to earn a pilot's license (private pilot certificate). Flight training is taken through CWU's approved flight training operator at Bowers Field in Ellensburg, Washington, and may be taken under FAR Part 61 or Part 141.

## Required Courses

FLT 101 - Private Pilot Flight Laboratory I . . 1
FLT 102 - Private Pilot Flight
Laboratory II
. 1
FLT 103 - Private Pilot Flight
Laboratory III ..... 1
FLT 141 - Principles of Flight I .....  4
FLT 142 - Principles of Flight II .....  4
FLT 211 - Meteorology for Pilots .....  4
FLT 221 - Aircraft Systems I ..... 3
Department-approved FLT electives .....  6
Total Credits: 24

## Flight Technology Courses

## FLT 101. Private Pilot Flight Laboratory I

(1). Basic flight maneuvers, solo flight in local area, and introduction of maximum performance takeoff and landing procedures. Co-requisite, FLT 141.

## FLT 102. Private Pilot Flight Laboratory II

 (1). Plan and conduct cross-country flights and perform short-field and soft-field takeoffs and landings. Prerequisite: FLT 101, co-requisite, FLT 142.FLT 103. Private Pilot Flight Laboratory III (1). Perform private pilot operation at a standard to obtain the private pilot certificate. Prerequisite: FLT 102.
FLT 130. Introduction to Aviation (1). An overview of the aviation program, industry, career options, and opportunities. Grade will be S or U.
FLT 141. Principles of Flight I (4). Basic knowledge of airplanes and their systems, aerodynamics, flight safety, airports, aeronautical charts, airspace, radio communications, air traffic control services, and aviation regulations. Co-requisite, FLT 221.

FLT 142. Principles of Flight II (4). Basic knowledge of airplane performance and loading, preflight planning including weather analysis, visual and radio (VOR/ ADF ) navigation, flight physiology, and aeronautical decision making. Preflight planning for cross-country flights.
Prerequisite: a minimum grade of C- or above in FLT 141. Co-requisite FLT 211.
FLT 201. Instrument Pilot Flight Laboratory I (1). Attitude control by instrument reference only, use of full and partial panel, and radio navigation. Prerequisite: Private Pilot Certificate.
FLT 202. Instrument Pilot Flight Laboratory II (1). IFR approaches and holding patterns. Prerequisite: FLT 201.
FLT 203. Instrument Pilot Flight Laboratory III (1). Perform all IFR maneuvers and procedures to FAA instrument rating practical test standards. Prerequisite: FLT 202.

FLT 211. Meteorology for Pilots (4).
Meteorological processes and weather hazards peculiar to the flight environment. Co-requisite, FLT 142.
FLT 221. Aircraft Systems I (3). Light training aircraft engines, propellers, and engine systems, flight controls, fuel systems, instrumentation, tires, wheels, and brakes. Co-requisite, FLT 141.
FLT 232. History of Aviation (2). A brief overview of the major developments in
the history of powered flight. Prerequisite: ENG 101.
FLT 241. Instrument Flight I (3). Operation and use of flight instruments and instrument navigation, function of air traffic control, and use of instrument flight charts. Prerequisite: Private Pilot Certificate.
FLT 242. Instrument Flight II (2). Procedures for IFR departure, enroute and arrival operations. Preparation for FAA written examination. Prerequisite: a minimum grade of C- or above in FLT 241, corequisite, FLT 312.
FLT 296. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
FLT 298. Special Topics (1-5).
FLT 301. Certified Flight Instructor Laboratory (1). Analyze and perform maneuvers from the right seat. Demonstrate proficiency and instructional knowledge to FAA practical test standards. Prerequisite: Commercial Pilot Certificate, FLT 358.
FLT 304. Commercial Pilot Flight Laboratory I (1). Plan and conduct VFR cross-country flights using pilotage, dead reckoning, and radio navigation. Night flight operations. Prerequisite: FLT 203.
FLT 305. Commercial Pilot Flight Laboratory II (1). Operation of complex aircraft and basic knowledge of advanced commercial maneuvers. Prerequisite: FLT 304.
FLT 306. Commercial Pilot Flight Laboratory III (1). Perform flight maneuvers and procedures to FAA commercial pilot practical test standards. Prerequisite: FLT 305.

FLT 307. Hypobaric Chamber (1). Physiological aspects of flight to include participation in FAA-sponsored USAF night-vision lab and hypobaric (altitude) chamber training. Prerequisite: FLT 337 and permission of the instructor. Course will be graded S or U .
FLT 312. Aviation Weather Services (3). Comprehensive analysis of weather service for flight crews, including interpretation of applicable alpha-numeric and graphic weather reports and forecasts. Co-requisite, FLT 242.
FLT 319. Applied Aerodynamics for Pilots (3). Theories of flight and flight factors including airfoil shape, drag, velocity, lift and thrust, stability, and control. Prerequisite: FLT 242.
FLT 322. Aircraft Systems II (3). Complex aircraft systems. Prerequisite: FLT 221 and Instrument Rating. Co-requisite, FLT 354.
FLT 323. Advanced Navigation (2). Advanced navigation systems, their function, operation, and application. Prerequisite: FLT 354.
FLT 330. Aviation Law (3). Basic understanding of aviation law, the legal system, the principles of law, and how they may be applied to aspects of air transportation. Prerequisite: Instrument Rating or junior standing.
FLT 331. National Airspace System (3). The national air traffic control system, control procedures, the integration of centers,
approach communications, navigation procedures, radar operations, and facilities.
FLT 333. Air Transportation (4). The air transportation system including facilities, regulations, problems encountered in commercial air transportation, airline operations, economic and social considerations. Prerequisite: ENG 101.
FLT 334. Airport Management (3). Airport operations and management, including analysis of the role of the airport manager in planning, finance, and administration; public relations, social, political, and environmental considerations; operational requirements and facilities maintenance.
FLT 335. Aviation Management (3). Management of aviation activities, manpower, facilities, regulations, and flight operations.
FLT 337. Aviation Physiology and Survival (3). Physiological aspects of flight crew performance, including effects of high altitude, accelerations, disorientation, and fatigue. Normally requires altitude chamber flight. Basic introduction to wilderness survival. Prerequisite: Private Pilot Certificate.
FLT 340. Human Factors in Flight (3). Psychological aspects of flight crew performance and fundamental concepts of crew resource management. Prerequisite: Instrument Rating.
FLT 348. Air Carrier Operations (3). Dispatch procedures, weather analysis (real time), flight operations, and crew utilization. Prerequisite: FLT 354.
FLT 352. Multiengine Principles (2). Multiengine aircraft systems and operations, normal and emergency procedures, and flight characteristics. Prerequisite: FLT354.
FLT 354. Commercial Pilot (4). Operation of advanced systems appropriate to complex airplanes and execution of advanced flight maneuvers. Preparation for FAA written examination. Co-requisite FLT 322.
FLT 358. Fundamentals of Flight Instruction (4). Instructional knowledge to teach required subject matter to include recognition, analysis, and correction of common student errors. Prerequisites: Instrument Rating and Commercial Pilot Certificate Course Stage V.
FLT 375. Mountain and Canyon Flying (3). Synthesis of fundamental concepts and practices including navigation in mountainous terrain, aircraft performance and density altitude, canyon flying, and airport operations in constricted areas, mountain and canyon meteorology, emergencies, and flight safety. Prerequisites: FLT 141, FLT 142, FLT 211, or permission and private pilot license.
FLT 401. Multiengine Flight Laboratory
(1). Perform multiengine aircraft systems and operations, normal and emergency procedures to FAA practical test standards. Prerequisites: FLT 352 and Commercial Pilot Certificate.

FLT 417. Aviation Safety Management
(3). Fundamentals of aviation safety management, including evaluation of specific hazards peculiar to the flight environment. Prerequisite: Commercial Pilot Certificate Course Stage IV.
FLT 422. Aircraft Systems III (3). Turbine engines and turboprop aircraft systems. Prerequisites: FLT 322 and FLT 354.
FLT 423. Aircraft Systems IV (3). Transport category aircraft systems. Prerequisite: FLT 422.

FLT 424. Dash 8 Aircraft Systems (4).
Horizon Air Dash 8 turboprop aircraft systems. Prerequisites: FLT 422, FLT 444, or by permission.
FLT 434. Airport Operations (3).
Prerequisites: FLT 333 and FLT 334.
FLT 438. Planning and Design of
Airports (4). Methodologies necessary to the planning and design of airports. Prerequisite: FLT 434.
FLT 444. Multiengine Simulator, EFIS (2). Introduction to and familiarization of electronic flight instrument systems, use of flight director, and auto pilot. Beginning crew coordination. Prerequisites: admission to the Flight Officer emphasis or the Aircraft Systems Management emphasis, FLT 352, and Commercial Pilot Certificate Course Stage V complete.
FLT 445. Multiengine Simulator, Turboprop (2). Operation of turbine-powered aircraft; CRM, and FMS. Prerequisites; admission to the Flight Officer or the Aircraft Systems Management emphasis, FLT 422, FLT 444, and Multi-engine Rating.
FLT 458. Advanced Flight Instruction, Instrument (2). Methodology used in teaching instrument flight and acquisition of the Instrument Ground Instructor certificate (IGI). Prerequisite: FLT 358. Co-requisite, Certified Flight Instructor Certificate Course Stage I.
FLT 465. Beechcraft Baron G58/G1000/CRM Orientation (3). Prepares students for operations related to simulated flight in the Frasca Baron G58 FTD with G1000. Includes operation of systems, advanced avionics, and Crew Resource Management (CRM) training. Prerequisites: FLT 322, FLT 354, and permission of the instructor.
FLT 466. Multiengine Turboprop/EFIS/ CRM Orientation (3). Prepares students for operations related to a simulated flight in the Frasa Beechcraft King Air FTD with Universal FMS. Includes operation of systems, advanced avionics, and Crew Resource Management (CRM) training. Prerequisite: FLT 422 and permission of the instructor.
FLT 469. Multiengine Turbojet/FMS/CRM Orientation (3). Simulated flight training in the Frasca CRJ Turbojet with Collins FMS; includes flight time and CRM. Prerequisites: FLT 423 and permission of the instructor.
FLT 475A. Specialty Flight Laboratory: Single Engine Seaplane (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12
flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 475B. Specialty Flight Laboratory: Multiengine Seaplane (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12 flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 475C. Specialty Flight Laboratory: Helicopters (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12 flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 475D. Specialty Flight Laboratory: Mountain Flying (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12 flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 475E. Specialty Flight Laboratory: Aerobatics (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12 flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 475F. Specialty Flight Laboratory: Other by advisement and permission (1). Instruction in the listed specialties. Flight hours will vary with specialty. A minimum of 12 flying hours normally required for credit except as approved by Flight Technology. Hang gliders are specifically omitted. May be repeated. Prerequisites: FAA Pilot Certificate or equivalent and permission.
FLT 489. Pilot Performance (2). Oral and skill demonstration in the simulator covering those areas required of graduates entering an aircraft pilot career. Prerequisites: FLT 445 and permission of instructor.
FLT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
FLT 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
FLT 498. Special Topics (1-5).
FLT 499. Seminar. (1-5). May be repeated.

# EDUCATIONAL FOUNDATIONS AND CURRICULUM DEPARTMENT 

Ellensburg
Black Hall, room 101

## 509-963-1461

Fax: 509-963-1162
www.cwu.edu / ~education
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff <br> Chair

Barry Donahue, EdD
Graduate Programs Coordinator
Catherine Bertelson, PhD
Director of Field Experience
Rexton Lynn, EdD
Professors
Catherine Bertelson, PhD , educational technology
Rebecca S. Bowers, EdD, curriculum and instruction
Barry Donahue, EdD, philosophy, research design
Steven A. Schmitz, EdD, sociology,
philosophy, history, assessment, curriculum David Shorr, PhD, early childhood education Don B. Woodcock, PhD, policy and management, multicultural, and American Indian education

## Associate Professors

Kim M. Jones, PhD, curriculum and instruction
Mary Lochrie, EdD, classroom management, assessment, curriculum and instructional planning
Ian Loverro, PhD, educational technology and communication
Steven Nourse, PhD, curriculum and instruction, supervision
Lee Plourde, PhD curriculum and instruction, supervision, administration

## Assistant Professors

Yukari Amos, PhD, bilingual education Gary Ballou, PhD, field supervision Kelly Benson, EdD, leadership, law Naomi Petersen, EdD, philosophy, assessment, STEM, informal settings Molly Ross, EdD, field supervisor

## Lecturers

Alex Alexandrou, MA, field supervisor Jerry St. George, MEd, field supervisor

## Staff

Jan Case, program support supervisor
Linda Huber, secretary senior

## Department Information

In order to be certified in the state of Washington, a student must complete the courses required in an endorsement area as well as the Professional Education Program. The Educational Foundations and Curriculum Department provides the courses and experiences necessary to complete the Professional Education Program.

Students completing a special education major or minor must complete EDCS 424 (or EDLT 308 for those also seeking an elementary major) as part of the Professional Education Program. Students completing a secondary discipline-specific program must also complete EDCS 424. All other majors or minors do not require the completion of this course. Also, at least 75 percent of the endorsable major or minor must be completed prior to EDCS 442, Student Teaching.

## Department Standards

All students completing an educational endorsement must maintain a 3.0 GPA or higher for the last 45 graded credits. Students must also earn a minimum grade of C in all required Professional Education Program courses.

## Admission Requirements

Students may not enroll in Professional Education Program courses until they have been at least conditionally admitted into the Teacher Preparation Program. Please see the admission requirements for the Teacher Preparation Program at the Teacher Certification Web site, www.cwu.edu / ~cert.

## Exit Requirements

Students admitted into the Teacher Preparation Program are required, before graduation, to present a complete electronic portfolio demonstrating their content, pedagogical, and professional knowledge, skills, and dispositions as a partial fulfillment of their graduation requirements. Please see the exit requirements for the Teacher Preparation Program.

## Professional Education Program

The purpose of the Professional Education Program is to prepare prospective teachers to become facilitators of learning within the school and community. The Professional Education Program curriculum provides opportunities to acquire the pedagogical knowledge and skills that allow students to demonstrate a positive impact on P-12 student learning. To this end, the program offers information about and experience in integrating research and pedagogy constructs for a spectrum of diverse learning situations.

Since EDCS 300 is offered only from August-September, students should enroll in EDCS 300 prior to their junior year. Student
teaching is completed at one of the approved off-campus locations.

Students should check the university catalog for course descriptions and prerequisite information. Some courses must be taken in sequence. Students should consult their advisor for assistance in developing an academic plan.

## BLOCK I

Admission requirements for BLOCK I
courses, please visit the Teacher Certification Web site at www.cwu.edu / ~cert.

## Required Courses

EDCS 300-Pre-autumn Field Experience . . 4
EDCS 431 - Multicultural Education . . . . . . . 3
EFC 310 - Orientation to Teaching (3) . . . . 1-3 OR *EDF 301A - Introduction to Teacher Education (1)
EDSE 302 - Introduction to Students with Exceptionalities
PSY 314 - Human Development and the Learner . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
**EDCS 444 - Education Issues and Law ... 3

## BLOCK II

Admission requirements for BLOCK II courses, please visit the Teacher Certification Web site at www.cwu.edu / ~cert.

## Required Courses

**EDCS 311 - Teaching: Classroom Management and Assessment . 5
**EDCS 316 - Education Technology . . . . . . . 3 OR
BSED 316 - Educational Technology (3)
EDCS 424 - Reading in the Content Fields . . 3 (Secondary majors only)
**EDCS 442 - Student Teaching. . . . . . . . . . . 16
**PSY 315 - Educational Psychology . . . . . . . 4

## Professional Education Program-

Total Credits: 47-52

* EDF 301A is allowed and required only for those students who have successfully completed another institution's equivalency to CWU's EFC 310.
** These courses require successful completion of PSY 314 and CWU's EFC 310 or, if having completed an approved substitution for CWU's EFC 310, EDF 301A as prerequisites. PSY 101 is a prerequisite for PSY 314.

NOTE: EDSE 302, EDCS 444, and EDCS 424 (if required, see above) may be completed after student teaching.

## Student Teaching

EDF 442 is offered by permission only. Students must complete a minimum of 16 quarter credits of student teaching on an all-day basis for one quarter. To qualify for certification to teach in more than one specialization, students must meet all requirements listed in the catalog for each specialization.

Applications for student teaching must be received by the Educational Foundations and Curriculum Department Office (Black Hall 101) prior to the application deadline.

Student teaching assignments are made according to the following policies.

1. All prerequisites in the course description for student teaching must be completed.
2. One quarter in residence at CWU is required before a student may be assigned to student teaching, unless an exception is approved by the chair of the Department of Educational Foundations and Curriculum.
3. Students must be endorsed for student teaching by their major and minor departments. The endorsement requires completion of 75 percent of the major and minor areas prior to student teaching. See major and minor departments for advising.
4. Most student teaching assignments will be made at centers outside Kittitas County.
5. Student requests for choice of student teaching centers and grade levels will be considered. Final responsibility for student teaching placement rests with the Department of Educational Foundations and Curriculum.
6. Student teachers wishing to enroll in additional coursework during their student teaching experience must obtain the approval of the chair of the Department of Educational Foundations and Curriculum.
7. A minimum GPA of 3.0 for the last 45 quarter credits is required prior to applying for student teaching.
8. Fingerprint clearance from both the Washington State Patrol and the FBI must be on file in the office of the dean of the College of Education prior to applying for student teaching. Clearance must be valid for the period in which students will be in the classroom.
9. Applications for certification must be on file in the office of the dean of the College of Education one quarter prior to student teaching.
10. Students must provide proof of purchase of $\$ 1 \mathrm{M}$ of liability insurance for student teaching, valid for the quarter in which student teaching will occur, at the time of application submission.
11. Students must provide, at the time of application submission, West-E results or proof of having registered for a West-E test date that will occur prior to the first day of student teaching.

## Education Curriculum and Supervision Courses

EDCS 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.

EDCS 298. Special Topics (1-6).
EDCS 299. Seminar (1-5). May be repeated.
EDCS 300. Pre-Autumn Field Experience (4). A laboratory experience course in the first phase of Option I in the teacher preparation program. The course deals with the opening of school, professional relationships, school/ community relationships, school district organization, instructional support and resource services. Students are assigned in off-campus centers for approximately four weeks prior to fall quarter. Grade will be $S$ or U.
EDCS 309. Civic Engagement (2). Student will use program of study content knowledge to improve a community situation. EDCS 309 and UNIV 309 are equivalent courses. May be repeated for credit.
EDCS 311. Teaching: Classroom
Management and Assessment (5).
Basic principles of curriculum planning, classroom management/guidance techniques, and classroom assessment. Prerequisites: CWU's EDF 301 or EDF 301A, PSY 314, and full admission to the Teacher Preparation Program.
EDCS 312. Educational Statistics (4). Use and interpretation of elementary statistical techniques.
EDCS 316. Educational Technology (3). Students will explore a variety of concepts and resources related to the appropriate and effective integration of technology/ media in school settings. Prerequisites: CWU's EDF 301, or EDF 301A, PSY 314, and full admission to the Teacher Preparation Program. CS 101 or IT 101 recommended prior to enrollment. EDCS 316 and BSED 316 are equivalent courses.
EDCS 392. Practicum (3-5). Practical experience in a state-approved $\mathrm{K}-12$ educational setting. Prerequisite: permission of education department. Grade will be S or U .
EDCS 396. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDCS 398. Special Topics (1-6).
EDCS 424. Reading in the Content Fields
(3). For intermediate and secondary school teachers. Focuses on the techniques needed by students to become efficient readers in various subject areas. Prerequisites: CWU's EDF 301 or EDF 301A, PSY 314, and full admission to the Teacher Preparation Program.
EDCS 431. Multicultural Education (3). A course addressing cultural differences / diversity (e.g., ANTH 130, ETS 101, or SOC 365) is recommended prior to enrolling in EDCS 431. Race, nationality, minority groups, income groups, urban and rural groups, and methods of teaching and measuring intergroup relations. Prerequisite: Prior or concurrent enrollment in CWU's EDF 301 or EDF301A and completed application to the Teacher Preparation Program.

EDCS 442. Student Teaching (16). Course is by permission only. Student teaching is a full-time, one-quarter course. Students must meet all electronic portfolio/dispositional survey requirements. Students must attend the seminar, which accompanies the student-teaching experience. The seminar will meet a total of 20 clock hours during the quarter, normally at a time other than school hours, and at a place designated by the university supervisor. All assignments for student teaching are made through the office of field experiences. In order to qualify for certification to teach in more than one specialization, students must meet all requirements as listed in the undergraduate catalog for each specialization. Students must demonstrate their competence by student teaching a full quarter for each specialization for which they wish to be endorsed. Students will spend a minimum of 75 percent of the experience in a classroom associated with the major course of study. Prerequisites: full admission to the Teacher Preparation Program, 3.0 GPA (for the last 45 graded quarter credits) and successful completion of (grade $C$ or higher in each course) of prerequisite professional sequence courses, successful completion of all general education requirements, and at least 75 percent of major and minor completed (grade C or higher in each course). Grade will be $S$ or U .
EDCS 444. Educational Issues and Law (3). Major legal and ethical issues confronting educators, including implications for identifying and reporting child abuse. Prerequisite: prior or concurrent enrollment in CWU's EDF 301 or EDF 301A and completed application to the Teacher Preparation Program.
EDCS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
EDCS 491. Workshop (1-6). Laboratory facilities will be included as part of the workshop; specialists will lead discussions on various problems concerning education. With the approval of department chair, course may be designated for regular letter grade or S or U , depending upon course objectives and method of instruction.
EDCS 492. Practicum (1-15). Experience working in educational settings. Prerequisite: permission of the Chair of the Department of Curriculum and Supervision. Grade will be S or U. Students may accumulate no more than 15 hours of practicum credit.
EDCS 493. Classroom Management and Discipline (2). Course addresses effective classroom management techniques to promote positive impact on P-12 learners.

Prerequisites: EDF 310, EDF 302, and PSY 314.

EDCS 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDCS 498. Special Topics (1-6).
EDCS 499. Seminar (1-5). May be repeated.

## Education Foundation Courses

EDF 100. Improvement of Basic Reading
Skills (1-2). May be repeated. Credits will not be allowed toward meeting graduation requirements. Grade will be $S$ or $U$.
EDF 201. Tutoring Methods I (1). Principles of individualized instruction for student paraprofessional tutors. Structuring tutorials, fundamental learning strategies, assessment strategies, communication skills, and integration of content mastery / learning skills.
EDF 202. Tutoring Methods II (1). Principles of individualized instruction for student paraprofessional tutors. Learning strategies, motivational theory and techniques, tutoring students with disabilities, crosscultural communication.
EDF 296. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDF 298. Special Topics (1-6).
EDF 299. Seminar (1-5). May be repeated.
EDF 301A. Introduction to Teacher
Education (1). Provides an overview of state regulations/requirements regarding teachers and $\mathrm{K}-12$ students and CWU's framework for addressing these and other accrediting standards. Course required of teacher preparation students otherwise exempt from completing CWU's EDF 301. Prerequisite: completed application to the Teacher Preparation Program.
EDF 396. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDF 398. Special Topics (1-6).
EDF 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
EDF 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDF 498. Special Topics (1-6).
EDF 499. Seminar (1-5). May be repeated.

## Education Foundation and Curriculum Courses

EFC 210. Seminar (1). Discussion of field observation and program planning for prospective teachers. Prerequisite: prior completion of pre-admission observation or by permission.
EFC 310. Orientation to Teaching (3).
Teaching as a career and essential features of preparation. Study of the teacher's role
and function in the school; characteristics of good teachers; preparation for professional competencies and certification; the American public school system; and the responsibilities of schools in a democratic society. Prerequisite: EFC 210, or concurrent enrollment, and acceptance into the teacher preparation program.
EFC 315. Educational Assessment (3). The assessment/planning/instruction cycle. Standards-based assessment. Reliability, validity, bias. Basic statistics used in test construction and interpretation. Construction of classroom tests: multiple-choice, short answer, essays, etc. Performance, portfolio, and affective assessment. Prerequisite: EFC 210 and acceptance into the teacher preparation program.
EFC 316. Classroom Management (3). Development of values, confidence, assertiveness skills, and decisionmaking skills in classroom management. Development of a comprehensive management plan for first-year teaching. Includes a field experience component. Prerequisites: PSY 314, EFC 310, and acceptance into the teacher preparation program.
EFC 410. Methods of Instruction (3). Introduction to basic methods of classroom instruction. Development of a comprehensive curriculum unit plan. Methods appropriate for subject and grade level in lab and field experience. Prerequisites: EFC 315, EFC 316, EDCS 431, EDF 330, and acceptance into the teacher preparation program.


## FAMILY AND CONSUMER SCIENCES DEPARTMENT

Ellensburg
Michaelsen Hall, room 100

509-963-2766
Fax 509-963-2787
www.cwu.edu / ~fandcs
Please see the family and consumer sciences (FCS) Web site for additional information on undergraduate education and career opportunities in FCS.

## Faculty and Staff

Chair
Jan Bowers, PhD

## Professors

Jan Bowers, PhD, family and consumer sciences education,
Robert Perkins, EdD, business and marketing education, recreation, leadership
Marla Wyatt, PhD, family and consumer sciences education

## Associate Professors

Kimberlee Bartel, PhD , business and marketing education
Dorothy Chase, PhD recreation and tourism
Barbara Masberg, PhD, recreation and tourism

## Assistant Professors

Kenneth Cohen, PhD , recreation and tourism Duane Dowd, PhD, CLFE, family studies Andrea Eklund, MA, fashion merchandising John Hudelson, PhD, global wine studies Amber Paulk, PhD, family studies, director of family resource center

## Lecturers

Vivian Baglien, PhD, family consumer sciences education
Karen Bergh, MEd, family consumer sciences education
Richard DeShields, MA, family studies Jaff Hagler, MA, recreation and tourism Ximenia Hedrick, MA, interior design Jodi Hoctor, BS, recreation and tourism Connie Kolokotrones, MS, interior design Theresa LaCroix, MS, recreation and tourism Peggy Roberts, MA, family studies

## Emeritus Professors

Joan Amby, PhD, family studies
Willa Dene Powell, PhD, family and consumer sciences education
Carolyn Schactler, MS, apparel design
William Vance, EdD, recreation and tourism

## Staff

Bonnie Beekley, senior secretary
Sheri Hubbard, grant program coordinator

## Department Information

The Department of Family and Consumer Sciences' programs lead to baccalaureate degrees in family and consumer sciences, career and technical education teaching, fashion merchandising, family studies, global wine studies, and recreation and tourism, recreation, or tourism management specialization.

Students may complete a minor in any of the following areas: apparel design, family and consumer sciences, family and consumer sciences education, family studies, fashion merchandising, program development, recreation management, tourism management, and wine trade and tourism.

## Admission Policy for Family and Consumer Sciences

1. A completed Family and Consumer Sciences (FCS) major application form must be signed by a program advisor after an initial advising meeting. The advisor will submit it to the FCS chair for approval.
2. Freshmen are encouraged to apply. All majors must hold a 2.3 cumulative GPA upon attaining sophomore standing (45 credits).
3. Students must earn a minimum grade of C- in each course counted toward fulfilling major and minor requirements.
4. Students must have a 2.3 minimum cumulative GPA in the major and minor to exit the program.
5. Students seeking a degree in family and consumer sciences career and technical education teaching major, business and marketing education career and technical education, or global wine studies should see specific requirements in the appropriate program section of this catalog.
6. For information on teacher certification for marketing education or business education, contact Dr. Kim Bartel or Dr. Rob Perkins.

## Bachelor of Science Family Studies Major

The bachelor of science family studies major is an interdisciplinary study of interpersonal and family relationships. The major has a strong emphasis on community involvement and practical application. Graduates are well prepared for career opportunities in family service agencies, parent education programs, family counseling centers, other family life education settings, or advanced study in family relations. Students wishing to declare a major in family studies must be incoming freshmen or have a cumulative GPA of 2.3. Family studies majors may not take 300- to 400-level

FS courses until they have completed the following requirements: a 2.5 cumulative GPA, completed a minimum of three hours of FS courses with a grade of C or better, and completed FCSG 205. The application for upper-division status must be completed with the student's academic advisor in Family Studies.

|  | Family and Consumer Sciences Core |
| :---: | :---: |
|  | FCSG 419 - Applied Research and Evaluation |
|  | FS 419 - Research Methods in Family Studies <br> Lab. $\qquad$ |
|  | FCSG 320 - Program Management and Planning . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
|  | FCSG 220 - Leadership in Human Development . . . . . . . . . . . . . . . . . . . . . . . . . 4 |
|  | FCSG 379 - Professional Development and Internship Planning . . . . . . . . . . . . . . . . . . 3 |

## Family Studies Required Courses

FCSG 205 - Entry Assessment . . . . . . . . . . . . . 1
FS 101 - Skills for Marriage . . . . . . . . . . . . . . . 4
FS 234 - Introduction to Family Studies .... 4
FS 235 - Relationships and Personal Development3
FS 334 - Family Problems and Mediation ... 4
3
FS 337 - Human Sexuality .....  4FS 405 - Portfolio Assessment
FS 433 - Family Life Education ..... 4
FCSC 472 - Life Management (5) ..... 3-5
OR
FCSC 371 - Consumer Awareness (3)
PSY 314 - Human Development and theLearner4
PSY 454 - The Helping Interview .....  3
LAJ 311 - Family Law (4) ..... 4
OR
FS 539 - Families and Public Policy (4)FS 490 - Cooperative Education 3
EDCS/UNIV 309 - Civic Engagement ..... 12
OREDCS/UNIV 509 - Civic Engagement (12)Department Approved Electives. 8

## Bachelor of Science <br> Family and Consumer Sciences <br> Career and Technical Education Teaching Major

This bachelor of sciences teaching major satisfies the endorsement for family and consumer sciences teaching for career and technical education.

Special requirements:
Students wishing to obtain a teaching certificate in family and consumer sciences education will:

- Complete the family and consumer sciences career and technical education teaching major
- Successfully complete FCSG 205 before being fully admitted to the major
- Have a university-level cumulative GPA of at least 2.3 for full admission to this major and a 3.0 minimum cumulative GPA in the major to exit the program and to graduate from CWU with teacher certification
- Earn a grade of $C$ in each course counted toward fulfilling major requirements
- Apply, be accepted into, and complete the teacher preparation program
- Student teach in a CTE-approved program
- Hold a valid first aid card with CPR
- Complete 2,000 hours of paid work experience in the last six years
- Provide documentation of occupational safety


## Required Courses

FCSA 351 - Sociocultural Aspects of Apparel
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSC 371 - Consumer Awareness . . . . . . . . . 3
FCSC 472 - Life Management . . . . . . . . . . . . . 5
FCSE 326 - Curriculum in Career and Technical Education for Family and Consumer Sciences.
.3
FCSE 422 - Impact of Education Reform on FCS

S . . . . . . . . . . . . . . .
FCSE 426 - Methods and Materials of
Teaching Family and Consumer Sciences . 3
FS 232 - Child Development . . . . . . . . . . . . . . 3
FS 234 - Introduction to Family Studies. . . . . 4
FS 336 - Parent Education and Guidance ... 3
FS 337 - Human Sexuality . . . . . . . . . . . . . . . . 4
FCSG 205 - FCS Entry Assessment . . . . . . . . 1
FCSG 320 - Program Management and
Planning . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
FCSG 405 - FCS Exit Assessment . . . . . . . . . . . 1
FCSH 367 - Family Housing . . . . . . . . . . . . . . 3
NUTR 140 - Introduction to Foods . . . . . . . . 2
NUTR 140LAB - Introduction to Foods
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
OCED 410 - Career and Technical
Education School to Work Programs . . . . . 4
Choose two of the following . . . . . . . . . . . . . 6-7
FCSA 280 - Basic Clothing Construction (3)
FS 235 - Relationship and Personal Development (3) FCSH 166 - Applied Creativity (3)
PSY 447 - Psychology of Adolescence (4)
Total Credits: 66-67
Students in this major should consult the general catalog for course planning and must meet course requirements as outlined in the general catalog in order to graduate.

This bachelor of sciences teaching major satisfies the state endorsement for family and consumer sciences teaching for career and technical education.
All students in this major must apply, be accepted into, and complete the Teacher Preparation Program, student teach in a CTEapproved program, hold a valid first aid card with CPT, complete 2,000 hours of paid work experience in the last six years, and provide documentation of Occupational Safety.

## Bachelor of Arts Family and Consumer Sciences Major

The BA in Family and Consumer Sciences comprises a general introduction to the broad areas of family and consumer sciences and, with an appropriate minor, can provide students with a well-rounded preparation for life or for further advanced study. This major requires a minor or double major. Students must have a cumulative GPA of at least 2.3 for full admission to this major and a 2.5 GPA for graduation.

## Required Courses

FCSA 351 - Sociocultural Aspects of Apparel 4
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSC 371 - Consumer Awareness . . . . . . . . . 3
FCSC 472 - Life Management . . . . . . . . . . . . . 5
FS 232 - Child Development . . . . . . . . . . . . . . 3
FS 234 - Introduction to Family Studies. . . . . 4
FS 336 - Parent Education and Guidance ... 3
FS 337 - Human Sexuality . . . . . . . . . . . . . . . . 4
FCSG 205 - FCS Entry Assessment ......... 1
FCSG 405 - FCS Exit Assessment . . . . . . . . . . . 1
FCSH 367 - Family Housing . . . . . . . . . . . . . . . 3
NUTR 140 - Introduction to Foods . . . . . . . . 2
NUTR 140LAB - Introduction to Foods
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . . 5

Choose two of the following:. . . . . . . . . . . . 6-7
FCSA 280 - Basic Sewing (3)
FS 235 - Relationships and Personal Development (3)
FCSH 166 - Applied Creativity (3)
FCSG 320 - Program Management and Planning (4)

Total Credits: 50-51

## Family and Consumer Sciences Education Minor

This minor does not meet endorsement requirements to teach family and consumer sciences.

## Required Courses

FCSA 351 - Sociocultural Aspects of Apparel4

FCSC 371 - Consumer Awareness . . . . . . . . . 3
FCSE 426 - Methods and Materials of
Teaching Family and Consumer Sciences . 3
FS 234 - Introduction to Family Studies .... 4
FS 232 - Child Development . . . . . . . . . . . . . . 3
FS 336 - Parent Education and
Guidance
NUTR 245 - Basic Nutrition
5
Total Credits: 25

## Family Studies Minor

## Required Courses

FS 101 - Skills for Marriage . . . . . . . . . . . . . . . 4
FS 234 - Introduction to Family Studies. . . . . 4
FS 235 - Relationship and Personal Development

FS 334 - Family Problems and Mediation ... 4

FS 336 - Parent Education and Guidance. . . . 3
FS 433 - Family Life Education . . . . . . . . . . . . 4
Total Credits: 22

## Family and Consumer Sciences Minor

In consultation with a faculty advisor, students select a minimum of 20 credits of coursework as appropriate to individual interests and professional goals. The planned course of study must have the signature of both the student and the faculty advisor before submission to the department chair for approval.

## Program Development Minor

Students take a series of courses addressing the strategies and techniques of planning and managing a program for events, training, education, seminars, entertainment, or meetings.

## Required Courses

FCSG 220 - Leadership in Human
Development . . . . . . . . . . . . . . . . . . . . . . . . 4
FCSG 230 - Program and Event Budgeting . . 2
FCSG 320 - Program Management and
Planning .
FCSG 379 - Professionalism and Internship
Planning . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
FCSG 419 - Applied Research and
Evaluation .3

Ad Advertising. . 5
Choose one course from the following: . . . .2-3
UNIV 309 - Civic Engagement (2)
FCSG 490 - Cooperative Education (2)
EDCS 509 - Civic Engagement (3)
Total Credits: 23-24

## Family and Consumer <br> Science Courses

FCSF 101. Skills for Marriage (3) Designed to provide preparation for marriage and other long-term committed relationships. Teaches skills in budgeting, conflict resolution, and establishing a fulfilling sexual relationship to the context of marriage.
FCSF 232. Child Development (3)
Developmental characteristics of children with emphasis from conception to eight years. Includes observation techniques. FCSF 232 and EDEC 232 are equivalent courses. Students may not receive credit for both.
FCSF 234. Introduction to Family Studies
(4) Origins and historical development of families; cultural variations, contemporary trends. Draws upon information and insight from numerous root disciplines to explore family structure and function.
FCSF 235. Relationships and Personal Development (3) Development of interpersonal relationships from initial encounters to stable commitments. Major focus on interaction patterns in intimate
relationships. FCSF 235 and PSY 235 are equivalent courses. Students may not receive credit for both.
FCSF 298. Special Topics (1-6)
FCSF 332. Theories in Child Development (4) Assists the student in formulating his or her own general assumptions about the nature of child development through study of various theoretical viewpoints and current issues. FCSF 332 and EDEC 332 are equivalent courses. Students may not receive credit for both.
FCSF 333. Culture and Marriage (4) The reciprocal relationships between the biophysical and cultural components in mating, nurturing, and sexual access. Crosscultural patterns in marriage. FCSF 333 and ANTH 333 are equivalent courses. Students may not receive credit for both.
FCSF 334. Family Problems and Mediation
(4) Problems arising out of the interaction of family members. Mediation techniques, family policy, and theories and ethics in studying families.
FCSF 335. Divorce and Remarriage (3) Personal, family, and legal aspects of divorce and remarriage; historical antecedents and trends. Prerequisite, FCSF 234 or permission.
FCSF 336. Parent Education and Guidance (3) Study of parent education models and methods of teaching parent education in community and school settings. Prerequisite, FCSF 234 or permission.
FCSF 337. Human Sexuality (4) The biophysical, psychosocial, and behavioral aspects of sexuality with emphasis on making responsible sexual decisions and promoting healthy relationships.
FCSF 344. Expressive Therapies (5) Expressive therapies (visual arts, music, theatre, dance, etc.) to expand multi-modal opportunities to grow, transform, and heal. Course provides brief experiential demonstrations and applications of theory in contexts of personal and professional work. Prerequisite, permission of the instructor.
FCSF 398. Special Topics (1-6)
FCSF 403. Family Communication (4) This course is designed to provide an overview of family dynamics and the processes that influence family communication and family functioning. FCSF 403 and COM 403 are equivalent courses. Students may not receive credit for both.
FCSF 405. Portfolio Assessment (1) During last quarter of their program, students are assessed on writing skills, speaking skills, visual and graphic skills, and knowledge in the 10 content areas of Family Studies. Prerequisite, FCSG 205 and senior standing.
FCSF 419. Research Methods in Family Studies Laboratory (1) Applied research experiences for family studies majors. Students participate in research projects directed by family studies faculty. Corequisite, FCSG 419.
FCSF 431. Principles of Sexuality Education (3) Principles and content for sex education
in school and community settings. Prerequisite, FCSF 337 or permission.
FCSF 433. Family Life Education (4) The
broad objectives, trends, methods, and materials of family life education programs in various settings. Prerequisite, FCSF 234 or permission.
FCSF 434. Ethnic Diversity in Families (3) A review of American families from a comparative perspective. Examination of similarities and differences across ethnic groups based on national, cultural, religious, and racial identification. Prerequisite, FCSF 234 or permission.
FCSF 435. Family Gerontology (4) A review of the research literature on families in later life, focusing on family interactions and building family strengths. Prerequisite, FCSF 234 or permission.
FCSF 490. Cooperative Education (1-12) A contracted field experience with business, industry, government, or social service agency. Requires a cooperative learning agreement. Prerequisite: by permission of department chair. May be repeated for a total of 20 credits.
FCSF 491. Workshop (1-6)
FCSF 498. Special Topics (1-6)
FCSF 499. Seminar (1-5)

## Consumer Management Courses

FCSC 298. Special Topics (1-6).
FCSC 371. Consumer Awareness (3).
Consumer aids, protection, and information; problems of quality and quantity. Consumer decisions, how consumption influences the market.
FCSC 398. Special Topics (1-6).
FCSC 472. Life Management (5). Study of family in human ecosystem. Emphasis on physiological and psychological wellbeing and management of resources. Solve practical family problems.
FCSC 491. Workshop (1-6).
FCSC 498. Special Topics (1-6).
FCSC 499. Seminar (1-5). May be repeated.

## Family Studies Courses

FS 101. Skills for Marriage (4). Designed to provide preparation for marriage and other long-term committed relationships. Teaches relational skills (e.g., communication and conflict management) and critically examines the role of marriage in contemporary society.
FS 232. Child Development (3). Developmental characteristics of children with emphasis from conception to eight years. Includes observation techniques. FS 232 and EDEC 232 are equivalent courses. Students may not receive credit for both.
FS 234. Introduction to Family Studies (4). Origins and historical development of families, cultural variations, contemporary trends. Draws upon information and insight from numerous root disciplines to explore family structure and function.

## FS 235. Relationships and Personal

 Development (3). Development of interpersonal relationships from initial encounters to stable commitments. Major focus on interaction patterns in intimate relationships. FS 235 and PSY 235 are equivalent courses. Students may not receive credit for both.FS 298. Special Topics (1-6).
FS 332. Theories in Child Development (4). Assists the student in formulating his or her own general assumptions about the nature of child development through study of various theoretical viewpoints and current issues. FS 332 and EDEC 332 are equivalent courses. Students may not receive credit for both.
FS 333. Culture and Marriage (4). The reciprocal relationships between the biophysical and cultural components in mating, nurturing, and sexual access. Crosscultural patterns in marriage. FS 333 and ANTH 333 are equivalent courses. Students may not receive credit for both.
FS 334. Family Problems and Mediation (4). Problems arising out of the interaction of family members. Mediation techniques, family policy, and theories and ethics in studying families.
FS 335. Divorce and Remarriage (3). Personal, family, and legal aspects of divorce and remarriage; historical antecedents and trends. Prerequisite: FS 234 or permission.
FS 336. Parent Education and Guidance
(3). Study of parent education models and methods of teaching parent education in community and school settings. Prerequisite: FS 234 or permission.
FS 337. Human Sexuality (4). The biophysical, psychosocial, and behavioral aspects of sexuality with emphasis on making responsible sexual decisions and promoting healthy relationships.
FS 344. Expressive Therapies (5). Expressive therapies (visual arts, music, theatre, dance, etc.) to expand multi-modal opportunities to grow, transform, and heal. Course provides brief experiential demonstrations and applications of theory in contexts of personal and professional work. Prerequisite: permission of the instructor.
FS 398. Special Topics (1-6).
FS 403. Family Communication (4). This course is designed to provide an overview of family dynamics and the processes that influence family communication and family functioning. FS 403 and COM 403 are equivalent courses. Students may not receive credit for both.
FS 405. Portfolio Assessment (1). During last quarter of their program, students are assessed on writing skills, speaking skills, visual/graphic skills, and knowledge in the 10 content areas of Family Studies Specialization. Prerequisite: FCSG 205 and senior standing.
FS 419. Research Methods in Family Studies Laboratory (1). Applied research
experiences for family studies majors. Students participate in research projects directed by family studies faculty. Corequisite, FCSG 419.
FS 431. Principles of Sexuality Education (3). Principles and content for sex education in school and community settings. Prerequisite: FS 337 or permission.
FS 433. Family Life Education (4). The broad objectives, trends, methods, and materials of family life education programs in various settings. Prerequisite: FS 234 or permission.
FS 434. Ethnic Diversity in Families (3). A review of American families from a comparative perspective. Examination of similarities and differences across ethnic groups based on national, cultural, religious, and racial identification. Prerequisite: FS 234 or permission.
FS 435. Family Gerontology (4). A review of the research literature on families in later life, focusing on family interactions and building family strengths. Prerequisite: FS 234 or permission.
FS 490. Cooperative Education (1-12). A contracted field experience with business, industry, government, or social service agency. Requires a cooperative learning agreement. Prerequisite: by permission of department chair. May be repeated for a total of 20 credits.
FS 491. Workshop (1-6).
FS 498. Special Topics (1-6).
FS 499. Seminar (1-5).

## Interior Design Courses

FCSH 166. Applied Creativity (3). The creative process; blocks to creativity, creative problem solving, principles and elements of design in housing and interiors.
FCSH 265. Interior Design Fundamentals (4). The design process, space planning, color analysis, evaluating existing spaces, style trends, and scale drawings. Prerequisite: FCSH 166.
FCSH 298. Special Topics (1-6).
FCSH 366. History of Housing and Furniture I (3). Survey of historic interiors, cabinetmakers, decorative arts, furniture from the antiquity to the middle of the 1700s.
FCSH 367. Family Housing (3). An evaluative study of the design, quality, and cost of housing environment.
FCSH 392. Housing Practicum (6-12). Work study experience in various aspects of the housing profession. Prerequisite: FCSH 265. May be repeated to a limit of 12 credits.
FCSH 398. Special Topics (1-6).
FCSH 464. Bath Design (4). Fundamental skills and knowledge are applied to a design problem related to functional, structural, and aesthetic qualities of interior environments, specifically residential bathroom design. Prerequisite: FCSH 392.
FCSH 465. History of Housing and
Furniture II (3). Survey of historic interiors,
cabinetmakers, decorative arts, furniture from the late 1700 s to the present.
FCSH 466. Housing Issues (4). Cultural factors and social responsibility in housing; evaluating special needs in space planning; economic/environmental issues in family and group housing.
FCSH 467. Furnishings (5). The different manufacturing and marketing processes of furniture will be explored. Underlying concepts and preparations of documents used by designers for furniture purchases and resale.
FCSH 480. Kitchen Design (4). Fundamental skills and knowledge are applied to a design problem related to functional, structural, and aesthetic qualities of interior environments, specifically residential kitchen design. Prerequisite: FCSH 392.
FCSH 485. Residential Lighting (4).
Students will be introduced to the lighting and electrical systems that affect the interior environment, and acquire a working knowledge of architectural lighting planning and electrical drawings. Prerequisite: FCSH 392 and acceptance into the major.
FCSH 491. Workshop (1-6).
FCSH 492. Housing Practicum (6-12). A work study course including practical experience in a phase of housing of the student's choice, accompanied with a seminar.
Prerequisite: FCSH 265. May be repeated for up to 12 credits.
FCSH 498. Special Topics (1-6).
FCSH 499. Seminar (1-5).

## Family and Consumer Sciences Education Courses

FCSE 298. Special Topics (1-6).
FCSE 326. Curriculum in Career and Technical Education for Family and Consumer Sciences. (3). Instructional organization and classroom procedure in Vocational Family and Consumer Sciences programs.
FCSE 398. Special Topics (1-6).
FCSE 422. Impact of Education Reform on FCS (2). Student will use program of study content knowledge to improve a community situation. Prerequisite FCSE 326.

FCSE 426. Methods and Materials of Teaching Family and Consumer Sciences (3). Application of the philosophy, purposes, teaching techniques, and assessment of family and consumer sciences programs in the secondary schools. Prerequisites: FCSE 326 and EDCS 311.
FCSE 491. Workshop (1-6).
FCSE 498. Special Topics (1-6).
FCSE 499. Seminar (1-5).

## Family and Consumer Sciences General Courses

FCSG 205. FCS Entry Assessment (1). This course consists of self-assessment and
assessment by the faculty of writing skills, speaking skills, visual/graphic skills, and knowledge of theory and research.
FCSG 220. Leadership in Human Development (4). This highly interactive (Challenge Course, Community Service) course focuses on developing students' leadership skills that provide a base for improved communication in both personal and professional situations.
FCSG 230. Program and Event Budgeting (2). Budget processes, terminology, and formats will be covered along with the preparation of basic budgets for events and programs.
FCSG 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
FCSG 305. Family and Consumer Sciences Student Leadership (1). Students engage in leadership development through identifying, organizing, conducting, and assessing course activities. Elective credit for major. Prerequisites: advisor recommendation, chair permission. May be repeated for credit up to 6 credits. Grade will be $S$ or $U$.
FCSG 320. Program Management and Planning (4). A holistic approach to program management. Content deals with planning, organizing, and controlling programs such as special events, recreation, product development, construction, and business.
FCSG 379. Professional Development and Internship Planning (3). Students will explore career options and networks within their industry, develop materials for a job search, and acquire skills related to professionalism.
FCSG 405. FCS Exit Assessment (1). During last quarter of their program, students are assessed on writing skills, speaking skills, visual/ graphic skills, and knowledge of theory and research. Prerequisite: FCSG 205. Grade will be $S$ or $U$.
FCSG 419. Applied Research and Evaluation
(3). Basics of research design including problem identification, research, and evaluation similarities and differences, sampling, survey development, methods and application, implementation, data analysis, and review of published research.
FCSG 420. Program Promotion and
Advertising (5). Provides students with skills through practical exercises, lectures, demonstrations, and examples to enable them to use marketing concepts and tools to develop effective campaigns.
FCSG 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination.
FCSG 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.

## FASHION

MERCHANDISING

Bachelor of Science Fashion Merchandising Major

Contact
Andrea Eklund, MA
Michaelsen Hall, room 326
509-963-2766
Fax: 509-963-2067

## Program Information

Central Washington University's fashion merchandising major is designed to help the student gain the knowledge needed to recognize industry trends, analyze market and consumer behavior, and evaluate retail needs. Guest speakers, industry field trips, and attending trade shows allow students to have contact with fashion industry professionals. Students also gain additional hands-on professional experience during summer internships.

The Fashion Merchandising program includes courses in fashion merchandising, clothing construction, social-cultural aspects of apparel, consumer textiles, fashion trend analysis, and many more. Besides extensive coursework in apparel and textiles, students study accounting, retail management, advertising, marketing research, and computing.

Students receive a BS degree in fashion merchandising administered by the Department of Family and Consumer Sciences. Quarterly meetings with the faculty advisor assures the student is on track academically to achieve their professional goals.

For additional information please contact Professor Andrea Eklund in family and consumer sciences or e-mail questions to aeklund@cwu.edu.

## Admission Policy

1. The major application form must be completed, then signed by the department advisor and chair.
2. Students must have a university-level cumulative GPA of at least 2.3 for full admission to a department major.

## Required Courses

ADMG 271 - Business Math Applications . . 4
BSED 146 - Basic Accounting. . . . . . . . . . . . . . . 5
FCSA 181 - Fashion Show Production . . . . . . 2
FCSA 280 - Basic Sewing Techniques ...... 3
FCSA 289 - NW Field Experience . . . . . . . . . . 3
FCSA 301 - Introduction to the Fashion Industry . 4
FCSA 351 - Sociocultural Aspects of Apparel 4
FCSA 353 - Sewn Product Analysis . . . . . . . . 2
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSA 389 - Fashion Trend Analysis . . . . . . . . 3
FCSA 452 - History of Fashion . . . . . . . . . . . . 4
FCSA/RMT 489 - Retail Buying . . . . . . . . . . . 4

FCSG 220 - Leadership in Human Development
.4
FCSG 320 - Program Management and Planning . 4
FCSG 379 - Professional Development . . . . . 3
FCSG 419 - Applied Research . . . . . . . . . . . . . 3
FCSG 420 - Program Promotion and Advertising. . 5
IT 258 - Spreadsheet Applications ......... . . 3
RMT 330 - Principles of Retailing . ......... . 4
RMT 340 - Principles of Selling . . . . . . . . . . . 4
FCSG 490 - Cooperative Education . . . . . . . 10
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14
FCSA 487 - Fashion Merchandising Exit Assessment.

Total Credits: 97

## Fashion Merchandising Minor

Required Courses
FCSA 181 - Fashion Show Production . . . . . . 2
FCSA 280 - Basic Sewing Techniques ...... 3
FCSA 301 - Introduction to the Fashion
Industry . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
FCSA 353 - Sewn Product Analysis . . . . . . . . 2
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSA 389 - Fashion Trends Analysis . . . . . . . 3
FCSA/RMT 489 - Retail Buying . . . . . . . . . . . 4
FCSG 420 - Program Promotion and Advertising.
. 5
RMT 330 - Principles of Retailing . ......... . 4
Total Credits: 31

## Apparel Design Minor

A minor in apparel design is administered jointly by the Fashion Merchandising program and the Department of Theatre Arts. It is designed to enable students with career interests in this field to gain experience in the competency areas expected of apparel designers. This minor allows the student to learn to apply the basic principles of design and creativity in developing apparel. Students will study the application of artistic and creative design elements, selection, and use of fabrics and textiles, and the techniques for transforming design concepts into garments in order to create a final saleable product for a target market.

## Required Courses

FCSA 280 - Basic Sewing Techniques . . . . . . . 3 OR
TH 261 - Costume Technology (3)
FCSA 301 - Principles of Fashion
Merchandising. . . . . . . . . . . . . . . . . . . . . . . 4
FCSA 355 - Consumer Textiles . . . . . . . . . . . . 4
FCSA 389 - Fashion Trend Analysis . . . . . . . . 3
FCSA 388 - Apparel Construction II. . . . . . . . 3
OR
TH 361 - Stage Costuming (3)
FCSA 488 - Fashion Line Development . . . . . 3
TH 340 - Introduction to Theatre Design. . . . 3
TH 461 - Costume Design . . . . . . . . . . . . . . . . 4
TH 465 - Costume and Fashion Drawing . . . 3

Total Credits: 30

## Fashion Merchandising and Textiles Courses

FCSA 181. Fashion Show Production (2). Preparation, production, and evaluation of special fashion-related events. Professional learning experiences will include modeling techniques, organization, and directing procedures. Class may be repeated up to 4 credits.
FCSA 251. Visual Merchandising (3). Organization, planning, preparation, and arrangement of effective visual displays. Prerequisite: FCSA 301. One hour lecture and four hours lab per week.
FCSA 280. Basic Sewing Techniques (3). Basic clothing construction theory, techniques, and teaching methods covering basic garment components: collars, sleeves, bodices, pleats, etc.
FCSA 289. Northwest Field Experience in Apparel and Textiles (3). An applied study of clothing, textiles, fashion merchandising, and design through regional field visits to meet with fashion professionals within a range of careers.
FCSA 298. Special Topics (1-6).
FCSA 301. Introduction to the Fashion Industry (4). Overview of the history, structure, and operation of the fashion industry. Provides knowledge and skills for effective development in understanding the dynamics of the fashion industry.
FCSA 351. Sociocultural Aspects of Apparel (4). Clothing in relation to individual and group behavior patterns; personal and social meanings attributed to dress; and cultural patterns of technology, aesthetics, ritual, morality, and symbolism. Recommended, PSY 101, SOC 107, and ANTH 107. The influence of cultural ideals and standards on dress.
FCSA 353. Sewn Product Analysis (2-3). Investigation of apparel quality through identification of product standards and specifications, performance, appearance, design, and production. Prerequisites: FCSA 280 and FCSA 355.


FCSA 355. Consumer Textiles (4). Study of natural and synthetic textiles: generic classification, fiber-forming substances, morphology, fabrication, finishing and dyeing processes, properties, and performances. $\$ 10$ material fee.
FCSA 379. Internship Planning (1-5).
FCSA 388. Apparel Construction II (3). Fundamental concepts of flat pattern and draping design theories and techniques. Design and execution of draped and flatpatterned samples and garment structures will be required. Includes translation of garment ideas from conception through production and merchandising. Prerequisite: FCSA 280 and admission to Fashion Merchandising major or minor or permission of the instructor.
FCSA 389. Fashion Trend Analysis (3). Fashion forecasting; reflecting the acceptance or rejection of trends; analysis of socio-economic, demographic, media, and fashion influences. Students will have an opportunity to travel to market. Prerequisite: ME /FCSA 301.

## FCSA 398. Special Topics (1-6).

FCSA 452. History of Fashion (4). Historical changes in fashion and costume design from Egyptian period through Eastern civilization to present. Social, political, and religious influences on fashions. FCSA 452 and TH 452 are equivalent courses. Students may not receive credit for both.
FCSA 485. International Merchandising (4). Emphasis on international retailing and global trade. Focus on cross-cultural differences, work environments, policies, and regulations. Prerequisite: RMT 330. FCSA 485 and RMT 485 are equivalent courses. Students may not receive credit for both.
FCSA 487. Fashion Merchandising Exit Assessment (1). During the last quarter of their program, students are assessed on program outcomes and portfolios are created for internship and job. Prerequisite: completion of all courses in the major except FCSG 490. Grade will be S or U.
FCSA 488. Fashion Line Development (3). Production of an apparel line from conceptualization to completion. Design concepts will be executed through storyboards, identification of target market, merchandising strategy, and completion of muslin samples. A final project of three original designs will be showcased at the annual fashion show. Prerequisites: FCSA 280, FCSA 388, or TH 361, and acceptance into Fashion Merchandising major or minor or permission of the instructor.
FCSA 489. Retail Buying (4). Principles of buying and selling merchandise; analysis of consumer demand, stock inventories, and open-to-buy. Prerequisites RMT 330. FCSA 489 and RMT 489 are equivalent courses. Students may not receive credit for both.
FCSA 491. Workshop (1-6).
FCSA 498. Special Topics (1-6).
FCSA 499. Seminar (1-5).

## GLOBAL WINE STUDIES

Office of Continuing Education Bouillon Hall, room 206

509-963-1504
Fax: 509-963-1690
www.cwuce.org/ wine-education.

## Advisors

Amy Mumma, MBA, Wine
Office of Continuing Education
Bouillon Hall, room 206
John Hudelson, PhD
Family and Consumer Sciences
Michaelsen Hall, room 330

## Bachelor of Science <br> Global Wine Studies

This interdisciplinary program provides students with a broad understanding of the global wine industry. The program prepares graduates for careers in winery and vineyard management, wine merchandising, wholesale, retail, e-commerce, distribution, marketing, import/export, hospitality, entrepreneurship, consulting, and more.

In the major, students complete 50 major core credits to acquire a broad base of knowledge and skills related to wine, wine business issues, and the global wine industry. Students also complete a minor, 25 to 36 credits, in one of several complementary academic areas. Students will also gain valuable experience by participating in a required international field experience and an internship with a wine-related business, either in the U.S. or abroad.

## Admission Requirements

Students must complete the preadmission requirements prior to admission into the degree program. An overall minimum 2.5 GPA will be required for admission. Students must fill out an application that includes an essay of motivation and goals. Upon approval of the application, an inperson or telephone interview will be conducted between the advisor for the global wine studies major and the prospective student. Permission of the major advisor is required. Upon admittance to the program students must agree to sign a written statement regarding professional conduct and responsibility

Student must be at least 21 years old before enrolling in courses that involve tasting wine (GWS 302 - Fundamentals of Viticulture and Enology, GWS 304 - Wine Marketing and Branding, GWS 406 - Professional Wine Analysis, GWS 408 - Advanced Sensory Analysis and GWS 410 - Wine Faults.)

## Special Requirements

Students will be expected to spend significant amounts of time outside the
classroom on projects, fieldtrips, and assignments. Students must earn a cumulative GPA of 2.7 in the global wine studies core courses.

## Financial Obligations

Because this is a self-supported program, no tuition waiver programs apply. Additional course fees and continuing education tuition apply. Tuition for GWS classes may be higher than regular CWU tuition.

## Pre-admission Requirements <br> CHEM 111/111LAB - Introduction to <br> Chemistry/Lab <br> GEOG 101 - World Regional Geography. . . . 5 <br> Choose one of the following:. . . . . . . . . . . . . 5 <br> HUM 101 - Exploring Cultures in the Ancient World (5) <br> OR <br> HUM 102 - Exploring Cultures from 16th through 19th Centuries (5) <br> OR <br> HUM 103 - Exploring Cultures in Modern and Contemporary Societies (5)

Total Pre-admission Credits: 15

## Global Wine Studies Core Courses

ACCT 301 - Financial Accounting Analysis . 5
GWS 302 - Fundamentals of Viticulture and Enology . . . . . . . . . . . . . . . . . .
World. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
GWS 304 - Wine Marketing and
Branding. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
GWS 402 - Issues in Viticulture and Enology 5
GWS 403 - The Global Wine Industry . . . . . . 5
GWS 404 - International Wine Trade . . . . . . . 5
GWS 406 - Professional Wine Analysis . . . . . 3
GWS 408 - Advanced Sensory Analysis. . . . . 4
GWS 410 - Wine Faults. . . . . . . . . . . . . . . . . . . 3
GWS 490 - Cooperative Education
(Internship). . . . . . . . . . . . . . . . . . . . . . . . . . 6
INTL 410 - Agriculture, Field Experience . . . 3
Total GWS Core Credits: 51

Select one of the following minors: . . . .25-36 Foreign Languages
Spanish
Tourism
Recreation Management
Communications
Organizational Communications
International Studies
Administrative Management
Retail Management and Technology

## Wine Trade Professional Certificate

## Advisor

Amy Mumma, MBA, Wine
Office of Continuing Education
Bouillon Hall, room 206
www.cwuce.org/wine-education
This certificate program focuses on the business and trade aspects of the wine
industry. Topics covered include the business of wine, world wine regions, trade structures, wine marketing, wine merchandising, viticulture, winemaking, wine styles, and professional evaluation techniques. Graduates are prepared for wine-related careers in sales and merchandising, distribution, marketing, import/export, consulting, hospitality, and more.

This certificate program is a 10 -week, intensive program and all four courses must be taken. Students will be expected to spend significant amounts of time outside the classroom working on projects, fieldtrips, and asisgnments.

## Pre-Program Admission Requirements

Students must complete the preadmission requirements prior to admission into the certificate program. Applicants must:

1. Be at least 21 years of age prior to the first day of class
2. Have a high proficiency with written and oral English language
3. Have successfully completed at least 45 quarter credits (or 30 semester credits) of courses from an accredited college or university, including at least two collegelevel English composition courses
4. Have an overall minimum college GPA of 2.5 (on a 4.0 scale)
5. Fill out and submit the certificate program application, including a written essay of personal motivation and goals
6. Sign and submit the written statement regarding personal and professional conduct and responsibility with regard to the use of alcohol
7. Submit a CWU CAPS report and / or all previous college/university transcripts. International students must additionally provide a TOEFL iBT score of 71 or higher, or successfully complete Level 5 of the CWU UESL (University English as a Second Language) program. The completed application will be reviewed by the program advisor. Upon approval of the application, an in-person or telephone interview will be conducted between the program advisor and the prospective student. Permission of the advisor is required for admission.

## Special Requirements

Students will be expected to spend significant amounts of time outside the classroom working on projects and assignments. Students must obtain a grade of B- or above in all four courses to receive the certificate.

## Financial Obligations

Because this is a self-supported program, no tuition waiver programs apply. Additional
course fees and continuing tuition apply. Tuition for GWS classes may be higher than regular CWU tuition.

## Required Courses

GWS 302 - Fundamentals of Viticulture and Enology

4
GWS 303 - Major Wine Regions of the World 4
GWS 304 - Wine Marketing and Branding . . 4
GWS 406 - Professional Wine Analysis . . . . . 3
Total Credits: 15

## Wine Trade and Tourism Minor

This cross-disciplinary program prepares individuals for employment in many areas of the wine industry including tourism, hospitality services, retailing, wine sales, marketing, and tasting room and event management.

## Admission Requirements

Admission to the minor requires admission to the Wine Trade Professional Certificate program. Students must be 21 years of age or older and must apply for acceptance into the program. Permission of the certificate program advisor is required.

## Special Requirements

Participation in the minor requires
acceptance into the Wine Trade Professional Certificate program. The certificate program is a 10 -week, intensive program and all four courses must be taken concurrently. Students will be expected to spend significant amounts of time outside the classroom working on projects and assignments. Students must obtain a grade of B- or above in all four courses to receive the certificate.

## Financial Obligations

Because this is a self-supported program, no tuition waiver programs apply. Additional course fees and continuing education tuition apply. Tuition for GWS classes may be higher than regular CWU tuition.

Required Courses: 29
GWS 302 - Fundamentals of Viticulture and Enology
GWS 303 - Major Wine Regions of the
World.
GWS 304 - Wine Marketing and Branding.4
GWS 406 - Professional Wine Analysis ..... 3
ME 330 - Principles of Retailing . ..... 4
RMT 467 - Retailing Management ..... 4

OR
RMT 350 - Retailing and E-commerce (4)
RT 490 - Cooperative Education .
Choose three of the following courses with advisement. . . . . . . . . . . . . . . . . . . 8-14
FCSG 230 - Program and Event Budgeting (2)
FCSG 320 - Program Management and Planning (4)

RT 373D - Convention and Meeting Management (5)
RT 373E - Resort Management (5)
RT 405/505-Hospitality Catering (3)
RT 471 - Tourism Planning and Sustainable Development (3)
RT 473 - Air Travel and Tourism (3)
RT 480 - Tourism Administration (4)
Total Credits: 37-43

## Global Wine Studies Courses

GWS 202. A Social History of Beer, Wine, and Distilled Spirits (4). This course looks at alcohol production/ consumption from early societies to its present-day industry. Students debate health issues of alcohol, environmental issues, and quality of life issues associated with the wine, beer, and spirits.
GWS 302. Fundamentals of Viticulture and Enology (4). Fundamentals of viticulture and enology, techniques and practices, wine styles, and grape varietals. Health issues associated with wine, basics of wine and food pairing. Prerequisite: permission of instructor.
GWS 303. Major Wine Regions of the World (4). Major wine regions of the world. Identification of major grape varietals and wine styles, label regulations, and legal issues. Viniculture and winemaking regulations, climate, soils, and other factors affecting each region. Prerequisite: permission of the instructor.
GWS 304. Wine Marketing and Branding
(4). Regulation and legalities, marketing, branding, public relations, consumer behavior and business planning in the wine industry. Prerequisite: permission of the instructor.
GWS 402. Issues in Viticulture and Enology (5). Advanced techniques in viticulture and enology practices, costs, risks, and projections involved in viticulture and winemaking, quality control, and quality assurance. Prerequisites: GWS 302 and permission of the instructor.
GWS 403. The Global Wine Industry (5). Traditional and emerging wine regions: globalization, classification and legal systems, trade structures, international agreements, consumption habits, patterns, and trends. Prerequisite: GWS 303 and permission of the instructor.
GWS 404. The International Wine Trade (5). Accounting and finance, global supply chain, distribution, retail, intellectual property rights, legal issues, wine auctions and investments, journalism, and ratings. Prerequisites: GWS 304, ACCT 301 and permission of the instructor.
GWS 406. Professional Wine Analysis (3). Evaluation and assessment of global wines. Component format for organoleptic properties including appearance, aroma, and palate. Prerequisites: permission of the instructor. Students must be 21 years of age or older.

GWS 408. Advanced Sensory Analysis (4). Assessment of viticulture and winemaking techniques in wine, identification of provenance, fraud, age, and potential for investment. Prerequisites: GWS 402, GWS 406 and permission of the instructor. Students must be 21 years of age or older.
GWS 410. Wine Faults (3). Chemical, physical, and biological faults and flaws found in wine for the vineyard, winery, distribution, retail, and consumer. Product recalls and legalities of faulty wines. Prerequisites: GWS 402, GWS 406, and permission of the instructor. Students must be 21 years of age or older.
GWS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, or government agencies in the wine industry. A learning agreement is created to identify and plan the directed and supervised study. Prerequisites: admission to major and permission of the instructor. Students must be 21 years of age or older.
GWS 491. Workshop (1-6).
GWS 492. Field Experience (1-6).
Prerequisites: admission to major and permission of the instructor. Students must be 21 years of age or older.
GWS 498. Special Topics (1-6).
GWS 499. Seminar (1-6).

## RECREATION AND TOURISM

Michaelsen Hall, room 100
509-963-2766
Fax: 509-963-2787
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Faculty
Dorothy Chase, PhD
Kenneth Cohen, PhD
Barbara Masberg, PhD

## Lecturers

Jeff Hagler, MA
Jodi Hoctor, BS

## Program Information

The Recreation and Tourism program (RT) prepares students for positions in one of the top three industries in Washington State and the world's number one industry. Professional positions are numerous. The following list is a sampling of the types of professional positions currently held by RT graduates: city parks and recreation director, recreation manager, front office and training manager, director of youth programs, guest services manager, and winery marketing manager, among others.

## Special Requirements

1. To be admitted to a major or minor in the RT program, students must meet
the admission and exit requirements for majors and minors in the Department of Family and Consumer Sciences.
2. The elective area will include at least 10 credits of RT prefix courses. Elective courses must be pre-approved by an advisor prior to registration for course(s).
3. Students are required to complete 6 credits of RT 292 Practicum and 12 credits RT 490 Cooperative Education/ Internship. An additional 4 credits of RT 292 or 8 credits of RT 490 may be applied to the elective area with prior advisor approval.
4. Students should plan to complete RT 490 Cooperative Education during the summer term.

Recreation and Tourism Core Requirements
FCSG 220 - Leadership and Human
Development . . . . . . . . . . . . . . . . . . . . . . . . 4
FCSG 230 - Program and Event Budgeting . . 2
FCSG 320 - Program Management and
Planning

$$
.4
$$

FCSG 379 - Internship Planning and
Development
DCSG 419 Appli . .......................... . . 3
FCSG 419 - Applied Research and Evaluation
FCSG 420 - Program Advertising and Promotion. .5

HRM 381 - Management of Human
Resources .....  5
IT 258 - Spreadsheet Applications .....  3
IT Applications Course. ..... 3
(Approved by Advisor)
RT 201 - Introduction to Recreation andTourism 3
RT 292 - Practicum ..... 6
RT 309 - Facility Planning and SustainableDesign.3
RT 330 - Sustainable Resources for Recreation and Tourism ..... 3
RT 350 - Tourism and Recreation for Special Groups .....  2
RT 484 - Legal Liability and Risk
Management 3
RT 490 - Cooperative Education ..... 12
Recreation and Tourism Core Credits: 64

## Bachelor of Science in Recreation and Tourism with a Tourism Management Specialization

 The student with a specialization in tourism management may choose a career in travel- and tourism-related industries including hotels, resorts, convention centers, cruise lines, airlines, visitor centers, casinos, tour companies, meeting planning, and others.
## Required Courses

Recreation and Tourism Core . . . . . . . . . . . . 64
RT 480 - Tourism Administration .......... . 4
ACCT 301 - Financial Accounting Analysis . 5
Advisor Approved Electives . . . . . . . . . . . . . 24
Total Credits: 97

## Recreation Management Specialization

The recreation management specialization prepares students for entry-level supervisory and managerial positions with government parks and recreation departments, YMCAs and Boys and Girls Clubs, armed forces recreation, university recreation and intramural sports, fitness and racquet clubs, camping and outdoor recreation, and employee recreation services.

## Required Courses

Recreation and Tourism Core . . . . . . . . . . . . 64
RT 222 - Games / Adventure Activities. . . . . . 2
RT 488 - Recreation Management. . . . . . . . . . 4
Social Science course approved by advisor. . 3
Advisor-approved electives. . . . . . . . . . . . . . 24
Total Credits: 97

## Recreation and Tourism Minors

Students who have a major in another area may desire to diversify their abilities by choosing to complete a minor program in tourism management or community recreation. These minors complement numerous major programs expanding career opportunities.

## Tourism Management Minor

## Required Courses

FCSG 320 - Program Management and Planning .

RT 201 - Introduction to Recreation and

Tourism

RT 473 - Air Travel and Tourism . . . . . . . . . . 3
RT 480 - Tourism Administration .......... 4
RT 484 - Legal Liability and Risk
Management
RT 292 - Practicum ..... 6
Advisor-approved electives ..... 10

Total Credits: 33

## Recreation Management Minor

Required CoursesFCSG 220 - Leadership and Human
Development ..... 4
FCSG 230 - Program and Event Budgeting. . 2 ..... 2FCSG 320 - Program Management andPlanning
4
HRM 381 - Human Resource Management .....  5RT 201 - Introduction to Recreation and
Tourism ..... 3
RT 488 - Recreation Management ..... 4
RT 292 - Practicum ..... 6
Advisor approved electives ..... 7

## Recreation and Tourism Courses

RT 201. Introduction to Recreation and Tourism (3). History, organizational structures, goals and objectives, policies and procedures within agencies, organizations and businesses in the private, voluntary, government, and tourism sectors.
RT 222. Games and Adventure Activities (2). Games and activities appropriate for playgrounds, camps, and community centers. Socialization, education, trust building, outdoor adventure, and other activities. Prerequisite: Recreation Tourism major or minor.
RT 272. Front Office (3). Examines the room divisions and front office functions critical to hotel operations. Includes the guest cycle, personnel supervision, sales techniques in the reservation process, and hotel organization and operation.
RT 275. Career Development (2). Students will explore career options and networks within the tourism industry and develop materials for a job search.
RT 286. International Travel I (3). Overview North and South America destinations and their travel, tourism, hospitality, and recreation industries. Touristic importance including economic, political, population, geography, social systems, and cultural characteristics.
RT 292. Practicum (1-3). Forty on-the-job hours of practical experience per 1 credit hour earned. Four additional hours may be applied toward the RT elective area. A minimum of one credit must be taken as a service-learning activity. Prerequisite: permission of advisor. May be repeated for credit.
RT 296. Individual Study (1-6). May be repeated.
RT 298. Special Topics (1-6).
RT 299. Seminar (1-5).
RT 300. Challenge Course Leadership (4). Students will develop leadership skills using the challenge course. Specifically, students will learn and use facilitation techniques to improve group and individual interaction.
RT 309. Facility Planning and Sustainable Design (3). This course takes a sustainable development and design approach to studying the key principles and technical concepts associated with recreation and tourism areas and facilities. These principles include community needs assessment and potential environmental impacts. Prerequisites: RT 201 and RT major or minor declared.
RT 330. Sustainable Resources for Recreation and Tourism (3). The framework of sustainability is used to examine how values, policy, management, and practices direct and affect the use of recreation and tourism areas that are both natural resourcebased and part of the built environment.
RT 337. Tour and Interpretive Program
Development (3). Methods, techniques, and skills used in the planning, development,
and presentation of resource-based interpretive programs and visitor tours. This course will include theoretical understanding of the interpretive process and practice of new skills.
RT 350. Tourism and Recreation for Special Groups (2). Distinguishing needs of special populations, mentally ill, disabled, aged, and others. Attention to the ADA. Observations of selected population groups.
RT 371. Tourism Essentials (5). Travel and tourism, including history, spatial aspects, economics, planning, marketing, research, and trends for domestic and international tourism. Prerequisite: RT 271 or permission of instructor.
RT 373A. Supervision in the Hospitality Industry (3). Basics of supervising programs, personnel, and facilities with emphasis on practical supervisory skill development. Prerequisite: RT 201.
RT 373D. Convention and Meeting Management (5). Students will be presented with the mechanics of planning and managing meetings and conventions of a business nature.
RT 373E. Resort Management (5). Presentation of management topics applied to the hospitality industry.
RT 374. Festivals and Events (3). Students will learn the purposes, mechanics, and leadership skills required for planning and executing community festivals and special events of a social nature.
RT 377. The Gaming and Casino Industry (3). An overview of the casino industry including: traditional casinos, riverboats, historical perspective, legal, social, cultural, and economic impacts, Indian gaming, regulation and control of gaming, regulation and control of gaming, and future trends in gaming industry.
RT 379. Cruise Line Industry (3). An overview of the cruise industry including: cruise lines, ships, history of cruising, human resource practices, marketing, design, terminology, and future trends.
RT 380. Supervision in the Hospitality Industry (3). Basics of supervising programs, personnel, and facilities with emphasis on practical supervisory skill development.
RT 381. Recreational Sports Management (3). Organization and implementation of recreational sports programs in community recreation settings. Emphasis on facilities, personnel, materials and supplies, tournament bracketing, and other practical considerations.
RT 386. International Travel II (3). Overview of selected Europe and Africa destinations and their travel, tourism, hospitality, and recreation industries. Touristic importance including economic, political, population, geography, social systems, and cultural characteristics.
RT 393A. Leisure Service Agency Visitations: Public Recreation Agencies (1-3). Field visits, usually from two to three days in duration. Review of facilities, programs,
and clientele with agency leader/
supervisor/manager. Letter graded. May be repeated for credit under different titles.
RT 393M. Leisure Service Agency
Visitations: Community Centers (1-3).
Field visits, usually from two to three days in duration. Review of facilities, programs, and clientele with agency leader/ supervisor/manager. Letter graded. May be repeated for credit under different titles.
RT 393Q. Leisure Service Agency Visitations: Transportation (1-3). Field visits, usually from two to three days in duration. Review of facilities, programs, and clientele with agency leader/supervisor/manager. Letter graded. May be repeated for credit under different titles.
RT 398. Special Topics (1-5).
RT 405. Hospitality Catering (3). Basics of-off premise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RT 405, and RT 505 are equivalent courses. Students may not receive credit for more than one.
RT 431. Resident Camp Programming (3). Methods, techniques, and skills used in the organization and operation of a resident camp program. Prerequisite: permission of instructor.
RT 471. Tourism Planning and Sustainable Development (3). The planning process is studied in connection with the development of sustainable tourism, taking into consideration the impacts of development on the economic, social, fiscal, environmental, and political fabric of communities.
Prerequisite: RT 201.
RT 473. Air Travel and Tourism (3). Examines the airline industry, its components and methods of operation. Also the interaction with other segments of the industry. Procedures for working with the airlines. Prerequisite: RT 201.
RT 474. Hotel Operations Analysis (2). Analysis of hotel performance and forecasting, with tools typically used in a lodging environment. Prerequisites: Math Basic and Breadth requirements, АССТ 301,


RT 272, and permission. RT 474 and RT 574 are equivalent courses. Students may not receive credit for both.
RT 475. Professionalism in Tourism (2). Students will develop skills related to professionalism in the tourism industry along with assessing themselves in order to successfully enter their careers. Prerequisite: declared RT major or minor.
RT 479. Cruise Line Workshop (2). Students will learn the ports, ports of call, and cruise lines of the Pacific Northwest. A visitation will be made to selected cruise offices and ports. Prerequisite: RT 379 and instructor permission.
RT 480. Tourism Administration (4). Contemporary problems and issues, basic applied research, organizational development, policy formulation, human resources, inventory and program/ personnel evaluation processes.
Prerequisite: RT 302 and HRM 381 or MGT 380, senior standing, and admission to RT major or minor.
RT 484. Legal Liability and Risk Management (3). Aspects of personnel law and premises liability in public, private, and not-for-profit education, human, and social services organizations. Procedures for managing risks. Open to recreation, tourism, and physical education majors, and RT graduate students only. RT 484 and PE 484 are equivalent courses.
RT 486. International Travel III (3). Overview of selected Asia, Australia, and South Pacific destinations and their travel, tourism, hospitality, and recreation industries. Touristic importance including economic, political, population, geography, social systems, and cultural characteristics.
RT 487. Outdoor Recreation Issues (3). This course addresses recent and breaking issues in the outdoor recreation field. The course involves readings and discussions in both the classroom and field environments. Prerequisite: RT 330.
RT 488. Recreation Management (4). Contemporary issues, basic applied evaluation, organizational development, policy formulation, human resources, inventory and program planning. Prerequisite: RT 302, senior standing, and declared RT major or minor.
RT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. A learning agreement is created by the student to identify and plan the directed and supervised study under the guidance of a tourism mentor. Prerequisite: admission to the major or minor, a minimum GPA of 2.25 , and permission of advisor. May be repeated. Grade will be S or U. Forty hours required per credit.
RT 491. Workshop (1-6).
RT 496. Individual Study (1-6). May be repeated.
RT 498. Special Topics (1-6).
RT 499. Seminar (1-5).

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See the Industrial and Engineering Technology Department's Web site for additional information detailing how these programs could be used for educational and career opportunities.

## Faculty and Staff

Chair
Michael L. Whelan, PhD

## Professors

William Bender, PhD, construction management
David Carns, MS, construction management
Craig Johnson, PhD, mechanical engineering technology
Taiqian Q. Yang, PhD, electronics

## Associate Professors

Scott Calahan, MEd, industrial / technology education
John (Jack) A. Gumaer, MS, electronics
Lad Holden, MT, electronics
Michael L. Whelan, PhD, construction management

## Assistant Professors

Roger Beardsley, MS, mechanical engineering technology
Geoff Dean, PhD, industrial and engineering technology
John O'Neill, MPA, safety and health management
P. Warren Plugge, PhD, construction management

## Emeritus Professors

G.W. Beed, EdD
D. Ken Calhoun, EdD

Robert Wieking, PhD
Tim Yoxtheimer, MS

## Lecturers

William Cattin, MS, industrial technology
Juan Robertson, PhD, MSET (DM)

## Staff

Susan Van de Venter, assistant to the chair
Javier Santillana, instructional and classroom support technician

## Department Overview

The Department of Industrial and Engineering Technology offers BS and BAS degree programs in various technologies.

## Accrediting Information

The Construction Management program is fully accredited by the American Council for Construction Education (ACCE).

The Electronics Engineering Technology program and Mechanical Engineering Technology program are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone 410-347-7700.

## Department Information

Some programs have specific admission requirements and admission deadlines. Specific information for each program can be found on the program Web site.

Students should seek advising from their program advisor prior to registration each quarter.

Courses with an additional fee are identified in the special course fee section of the student handbook published by the registrar.

## Majors:

Construction Management (BS)
Electronics Engineering Technology (BS)
Computer Engineering Technology Electronic Systems
Industrial Technology (BS, BAS)
Mechanical Engineering Technology (BS)
Mechanical Technology
Manufacturing Technology
Industrial Education (Broad Area) (BS)
Industrial Education (BS)
Safety and Health Management (BS, BAS)

## Minors:

Construction Safety
Electronics-Computer Hardware
Industrial Technology
Safety and Health Management
Traffic Safety Education

## Bachelor of Science

Construction Management Major

## Advisors

David Carns, MS (Coordinator)
William Bender, PhD
P. Warren Plugge, PhD

Michael Whelan, PhD
This major prepares the graduate for management positions in the construction industry. Students must be accepted into the major prior to taking upper-division CMGT courses. See www.cwu.edu / ~iet / programs / cmgt.html for details. Students pursuing
this degree should work closely with their program advisor to assure that prerequisites for entry into the major have been satisfied.

Construction management students have the choice to concentrate on one of two different construction types; general building or heavy civil construction.

## Exit Requirements

Students are required to complete the Associate Constructor exam administered by American Institute of Constructors and achieve a minimum score of 60 percent to graduate with a BS in construction management.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5 BUS 241 - Legal Environment of Business . . 5
CMGT 265 - Blueprint Reading and Construction Graphics . . . . . . . . . . . . . . . . . 4
CMGT 245 - Light Commercial Construction (5). .4-5
OR
CMGT 452 - LEED in Sustainable
Construction (4)
OR
IET 490 - Cooperative Education (4)
CMGT 320 - Electrical Systems Design . . . . . 3
CMGT 343 - Construction Estimating I . . . . . 3
CMGT 343LAB - Construction Estimating I Laboratory . 1
CMGT 346 - Construction Methods and Materials . 4
OR
CMGT 347 - Heavy Civil Methods and Materials (4)
CMGT 440 - Temporary Structures . 4 OR
CMGT 441 - Wood and Steel
Construction (4)
CMGT 442 - Building Service Systems ..... 3 OR
CMGT 443 - Heavy Civil Utilities (3)
CMGT 444 - Codes, Contracts, and
Specifications

## OR

CMGT 445 - Heavy Civil Contract Law (4)
CMGT 447 - Construction Planning, Scheduling and Control. . . . . . . . . . . . . . . . 4
CMGT 450 - Soils and Foundations . . . . . . . . 4
CMGT 455 - Principles of Construction Management . 4
OR
CMGT 456 - Principles of Heavy Civil
Construction Management (4)
CMGT 460 - Concrete Construction .4 OR
CMGT 461 - Pavement Design and Construction (4)
CMGT 485 - Construction Accounting, Finance, and Contemporary Topics . . . . . . 4
CMGT 488 - Professional Certification ..... 1
COM 345 - Business and Professional Speaking .................................. . . 4
ECON 201 - Principles of Economics Micro . 5
IET 161 - Architectural Computer Aided Design

IET 301 - Engineering Project Cost Analysis 4
IET 311 - Statics . . . . . . . . . . . . . . . . . . . . . . . . . 4
IET 312 - Strength of Materials . . . . . . . . . . . . 4
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
PHYS 181 - General Physics . . . . . . . . . . . . . . 4
PHYS 181LAB - General Physics
Laboratory
.1
SHM 323 - Construction Safety and
Supervision .............................. . . . . 3
CHEM 111 - Introduction to Chemistry .... 4 OR
CHEM 181 - General Chemistry I (4)
CHEM 111LAB - Introductory Chemistry
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
OR
CHEM 181LAB - General Chemistry
Laboratory I (1)

Select two of the following . . . . . . . . . . .10-11
HRM 381 - Management of Human
Resources (5)
OR
MGT 380 - Organizational Management
(5)

OR
MKT 360 - Principles of Marketing (5)
OR
ADMG 201 - Introduction to Business (3
AND
ADMG 372 - Leadership and Supervision
(3)

Select from the Following
.5
GEOL 101 - Physical Geology (4) AND
GEOL 101LAB - Physical Geology
Laboratory (1)
OR
GEOL 108 - Introduction to
Environmental Geology (5)

Select from the Following
.4
CMGT 267 - Plane Surveying (3)
AND
CMGT 267LAB - Plane Surveying Field Session (1)
OR
CMGT 267 - Plane Surveying (3) AND CMGT 267LABHC - Heavy Civil Highway Field Session (1)

Select from the Following
.4
CMGT 344 - Construction Estimating II (3)
AND
CMGT 344LAB - Construction Estimating II Laboratory (1) OR
CMGT 345 - Heavy Civil
Estimating II (3)
AND
CMGT 345LAB - Heavy Civil Estimating II Laboratory (1)

Total Credits: 131-133

## Construction Management Courses

CMGT 245. Light Commercial Construction (5). Construction of building foundations, commercial carpentry, and enclosing of wood frame structures. Students participate in construction of a building. Prerequisite:
CMGT 265 or permission of the instructor.
CMGT 265. Blueprint Reading and Construction Graphics (4). Introduction to plan reading, construction terminology, and the construction process. Extensive work with plans of significant scope. Prerequisite: high school drafting or permission of instructor. Not open to students with credit in CMGT 266.
CMGT 267. Plane Surveying (3). General surveying theory and practice pertaining to distance, elevation, and angle measurement. Includes traverse calculations and an emphasis on construction applications. Prerequisites: MATH 154 and CMGT 265. Co-requisite, CMGT 267LAB or CMGT 267LABHC.
CMGT 267LAB. Plane Surveying Field Session (1). Co-requisite, CMGT 267. One surveying field session weekly.
CMGT 267LABHC. Heavy Civil Highway Field Session (1). Co-requisite, CMGT 267. One surveying field session weekly.
CMGT 320. Electrical Systems Design
(3). Design and specification of building electrical systems including circuit principles, power distribution, and low voltage controls. Prerequisite: CMGT 265, and MATH 172, or permission of instructor.
CMGT 343. Construction Estimating I (3). Quantity surveying and bid preparation for general construction. Use of cost handbooks, specifications, and bid documents. Prerequisites: CMGT 265. Corequisite, CMGT 343 LAB .
CMGT 343LAB. Construction Estimating I Laboratory (1). Co-requisite, CMGT 343. One estimating computer laboratory session weekly.
CMGT 344. Construction Estimating II (3). Advanced quantity surveying and bid preparation for general construction. Prerequisite: CMGT 343. Co-requisite, CMGT 344LAB.
CMGT 344LAB. Construction Estimating II Laboratory (1). Co-requisite, CMGT 344. One estimating computer laboratory session weekly.
CMGT 345. Heavy Civil Estimating II (3). Advanced estimating techniques and bid preparation for heavy civil and highway construction. Prerequisite: CMGT 343; corequisite, CMGT 345 LAB .
CMGT 345LAB. Heavy Civil Estimating II Laboratory (1). Co-requisite, CMGT 345. One weekly estimating laboratory session.
CMGT 346. Construction Methods and Materials (4). Materials commonly used and the various methods employed in construction. Introduction to materials testing. Prerequisite: CMGT 265.

CMGT 347. Heavy Civil Methods and Materials (4). Materials commonly used and the various methods employed with an emphasis on heavy, civil, marine, and highway construction. Prerequisite: CMGT 265.

CMGT 440. Temporary Structures (4). An introduction to the materials, methods, and techniques associated with temporary construction facilities such as false work, scaffolding, formwork, and cofferdams. Prerequisite: IET 312 and CMGT 346 or 347.
CMGT 441. Wood and Steel Construction (4). A comprehensive study of the materials, design, and erection of wood and steel structures. Prerequisites: IET 312, and CMGT 346.
CMGT 442. Building Service Systems (3). An introduction to building service systems. Study the interfaces and specifications of mechanical and plumbing systems in building construction. Topics include plumbing, fire suppression, storm drainage, heat gain/loss, heating and cooling systems, and elevators. Prerequisite: CMGT 265.

CMGT 443. Heavy Civil Utilities (3). An introduction to the materials, equipment, methods, and safety requirements for the construction of underground and aboveground utilities including water, sewer, natural gas, and electrical systems. Prerequisite: CMGT 346 or CMGT 347.
CMGT 444. Codes, Contracts, and Specifications (4). Construction contracts and liability, bonding, arbitration, specifications, and building codes administration. Prerequisites: either CMGT 346 or CMGT 347, BUS 241, ENG 102, or permission of instructor.
CMGT 445. Heavy Civil Contract Law (4). Construction contracts, liability, bonding, arbitration, and heavy civil highway specifications. Prerequisite: either CMGT 346 or CMGT 347, BUS 241, ENG 102, or permission of instructor.

## CMGT 447. Construction Planning,

 Scheduling, and Control (4). Project scheduling and evaluation using network scheduling techniques, including critical path scheduling. Includes short interval scheduling and cash flow forecasting. Prerequisites: CMGT 343.CMGT 450. Soils and Foundations (4). An introduction to soil mechanics and analysis and design of both shallow and deep foundations. Prerequisites: IET 312, and either CMGT 346 or CMGT 347, and either GEOL 101 and GEOL 101LAB or GEOL 108.
CMGT 452. LEED in Sustainable Construction (4). The process using LEED as a measurement for sustainable construction. The course covers benefits and mechanisms of green building, cost analyses, and professional problem solving. Prerequisite: CMGT 265 or by permission of instructor. CMGT 452 and IET 552 are cross-listed. Students may not receive credit for both.

CMGT 455. Principles of Construction Management (4). Fundamental tools of construction management. Topics include contract management, scheduling, cost estimating, cost control, conflict management, negotiating, team building, quality control, safety, and a capstone project. Prerequisites: CMGT 447 and either CMGT 444, or CMGT 445.
CMGT 456. Principles of Heavy Civil Construction Management (4). Fundamental tools of heavy civil highway construction management. Topics include contract management, scheduling, cost estimating, cost control, conflict management, negotiating, team building, quality control, safety, and a capstone project. Prerequisite: CMGT 447 and CMGT 344 or CMGT 345.
CMGT 460. Concrete Construction (4). Manufacturing and testing of concrete, field practices, and formwork. Prerequisites: IET 312 and either CMGT 346 or CMGT 347, and either CMGT 440 or CMGT 441.
Two hours lecture and two hours laboratory per week.
CMGT 461. Pavement Design and Construction (4). An introduction to flexible and rigid pavement design and construction including pavement types, materials, construction methods, and maintenance concerns. Prerequisites: IET 312 and CMGT 346 or CMGT 347.
CMGT 480. Heavy, Civil, and Highway
Construction (4). Study of the Heavy, Civil, and Highway construction techniques and equipment used to build infrastructure projects such as highways, bridges, and site development. Prerequisites: CMGT 344 or CMGT 345.
CMGT 485. Construction Accounting, Finance, and Contemporary Topics (4). Project cost accounting principles, applications, and impact on profitability. Includes principles of activity-based costing; WBS, earned value, cash management, value engineering, and contemporary topics. Prerequisite: CMGT 444 or CMGT 445.
CMGT 488. Professional Certification (1). A comprehensive review of professional construction management principles and technical skills in preparation for a national certification examination. Prerequisite

## CMGT 444 or CMGT 445.

CMGT 495. Construction Management Competition Preparation (1). Students work in teams to prepare for Construction Management competition. Teams develop cost, schedule, site layout, and safety plans for a major construction project. Students will compete in the Associated Schools of Construction competition in Reno, Nevada. Prerequisite: CMGT 344. Grade will be S or U . May be repeated to a maximum of 3 credits.
CMGT 499. Seminar (1-5). May be repeated.

## Bachelor of Science Electronics Engineering Technology Major with Specialization

Advisors
Lad Holden, MS (Coordinator)
John Gumaer, MS
Taiqian Yang, PhD
The technologists graduating from this program are applications oriented, building upon a background of mathematics, science, and technology. They interface with engineers at the product level and produce practical, workable results quickly, install and operate technical systems, devise hardware and software from proven concepts, develop and produce products, service machines, programs, and systems, manage production facilities and work groups, and provide support for technical systems' hardware and software.

The core of the major's coursework is electronics, digital principles, programming, math, and science. There are two specializations: computer engineering technology for students specializing in software, and electronic systems for those specializing in hardware.

Students interested in engineering courses after graduation should complete PHYS 211, 212, 213 and MATH through differential equations (MATH 3376 and 377).

Students pursuing this degree should work with the departmental advisors to assure that they have met the prerequisites for the upper-division electives. Due to the number of hours required, some students may find that this program requires additional time to complete.

## Electronics Engineering Technology <br> Required Core Courses <br> CS 110 - Programming Fundamentals I .... 4

EET 221 - Basic Electricity . . . . . . . . . . . . . . . . 5
EET 312 - Basic Electronics . . . . . . . . . . . . . . . 5
EET 323 - Active Linear Circuits . . . . . . . . . . 4
EET 324 - Advanced Electrical Networks . . . 4
EET 342 - Instrumentation . . . . . . . . . . . . . . . . 4
EET 370 - Program Applications in
Technology
EET 371 - Digital Circuits . . . . . . . . . . . . . . . . 4
EET 372 - Advanced Digital Circuits . . . . . . . 4
EET 375 - Microprocessor Applications .... 4
EET 376 - Microprocessors and
Instrumentation . . . . . . . . . . . . . . . . . . . . . . 4
EET 452 - Computer Networks . . . . . . . . . . . . . 4
EET 478 - Senior Project I . . . . . . . . . . . . . . . . . . 2
EET 479 - Senior Project II . . . . . . . . . . . . . . . . . 2
EET 489 - Senior Technical Presentations . . . 2
IET 301 - Engineering Project Cost Analysis 4
IET 380 - Quality Control . . . . . . . . . . . . . . . . 4
IET 455 - Engineering Project Management . 4
MATH 172 - Calculus I.
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . 5Math Elective3-5Select one:MATH 260 - Sets and Logic (5)MATH 265 - Linear Algebra (4)
MATH 272 - Multivariable Calculus I (5)
MATH 311 - Statistical Conceptsand Methods (5)
MATH 330 - Discrete Mathematics (5)
MATH 376 - Elementary Differential Equations I (3)
Physics Elective ..... 15
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB
OR
PHYS 181, 181 LAB, 182, 182LAB,
183, 183LAB
Written Communications Elective
Select one . . . . . . . . . . . . . . . . . . . . . . . . . .3-5
ADMG 385 - Business Communications
and Report Writing (5)
CS 325 - Technical Writing in
Computer Science (3)
ENG 310 - Technical Writing (4)
Speech Elective, select one . . . . . . . . . . . . . 3-5
IET 389 - Technical Presentations (4)
COM 207 - Introduction to
Communication Studies (4)
COM 345 - Business and Professional
Speaking (4)
EET Core Total Credits: 102-108

## Computer Engineering Technology Specialization

## Advisors

Lad Holden, MT
John Gumaer, MS
James Schwing, PhD

## Required Courses

EET Core Requirements . . . . . . . . . . . . 103-107
CS 111 - Programming Fundamentals II . . . . 4
CS 301 - Data Structures . . . . . . . . . . . . . . . . . 4
CS 302 - Advanced Data Structures
and File Processing . . . . . . . . . . . . . . . . . . . . . 4
CS 470 - Operating Systems . . . . . . . . . . . . . . 4
CS 473 - Parallel Computing . . . . . . . . . . . . . 4
Department-Approved Technical Electives

7-12
Total Credits: 134

## Electronic Systems Specialization

## Advisors

Lad Holden, MT
John Gumaer, MS
Taiqian Q. Yang, PhD
Required Courses
EET Core Requirements . . . . . . . . . . . . . 103-107
EET 332 - Electrical Power and Machinery . 4
EET 343 - Process Control . . . . . . . . . . . . . . . . 4
IET 160 - Computer-aided Design and Drafting.
... . 4
IET 37 - Programmable Logic Controllers. . 4
Department-approved Technical
Electives
.7-12
Total Credits: 134

## Electronic Engineering

Technology Courses
EET 221. Basic Electricity (5). The fundamental principles of DC, AC, series and parallel circuits, resistance, capacitance, inductance, and power are explored.
Theory is reinforced by practical laboratory experimentation. Prerequisite: MATH 153
EET 312. Basic Electronics (5). Analysis of semiconductor devices and their application in power supplies, amplifiers, and control circuits. Theoretical concepts will be reinforced by circuit simulation and laboratory experimentation. Prerequisite: EET 221. Lecture/laboratory.
EET 323. Active Linear Circuits (4). Analysis and design of operational amplifier circuits including amplifiers, comparators, active filters, controls, and instrumentation devices. Prerequisites: EET 312 and MATH 172.

EET 324. Advanced Electrical Network (4). Analysis techniques applied to system solutions in the time and frequency domain using linear deferential equations and laplace and fourier transform methods. Prerequisites: EET 312 and MATH 173.
EET 332. Electrical Power and Machinery (4). A study of power transformers, single, and polyphase circuits. The study of DC machines, AC single and polyphase synchronous and induction machines. Prerequisite: EET 221 and EET 221LAB or equivalent.
EET 342. Instrumentation (4). Analysis of instrumentation systems including data collection, transmissions, and conversion, sensors operation, signal conditioning, and application techniques. Prerequisite: EET 312. Lecture/ laboratory.

EET 343. Process Control (4). Application of analog and digital controller principles to process control systems. Prerequisite: EET 342. Three hours lecture and two hours laboratory per week.
EET 361. MATLAB Applications (1). An introduction to MATLAB computation software applications, functions, and graphics.

## EET 362. Electronics Workbench

 Applications (1). An introduction to Electronic Workbench circuit simulation software. Techniques used to simulate AC and DC electric and electronic circuits will be introduced.EET 363. Lab View Applications (1). An introduction to Lab VIEW instrumentation software. Techniques used to simulate instrumentation systems will be introduced.
EET 370. Programming Applications in
Technology (4). Programming applications with an emphasis on networking, computer interfacing, and embedded systems applications.
EET 371. Digital Circuits (4). Introduction to digital circuit logic, analysis, and design, including number systems, Boolean algebra, and combinational and sequential logic. Digital systems are evaluated in the
laboratory. Prerequisite: EET 221. Three hours lecture and two hours laboratory per week.
EET 372. Advanced Digital Circuits (4). Study of state machines, interfacing, programmable logic devices (PLDs), memory, and computer architecture. Digital systems are designed, assembled, and verified in the laboratory. Prerequisite: EET 371. Two hours lecture and four hours laboratory per week.
EET 375. Microprocessors (4). Study of microprocessor system components, functions, and programming methods in assembly language. Laboratories examine microprocessor system operation, configuration, and programming. Prerequisite: EET 372. Three hours lecture and two hours laboratory per week.
EET 376. Microprocessors and Instrumentation (4). Study of microprocessor system configuration, design, and sensor integration programming applications. Laboratories examine application design using various sensor input and system output methods. Prerequisite: EET 375.
EET 432. Generation and Transmission of Electrical Power (4). A study of the generation and transmission of electrical energy. Includes techniques used by electric utilities for the protection of generating equipment and transmission lines, an introduction to the economic considerations of power plant operation and threewinding transformers, and methods of solving unbalanced three-phase systems. Prerequisite: EET 332.
EET 445. Electro-Mechanical Controls (4). A study of the components in open-loop and closed-looped systems. Included are sensing devices, error detectors, potentiometers, synchors, resolvers, modulators, demodulators, amplifiers, motors, generators, and network. An analysis course that stresses operation time and frequency-response characteristics, and proper adjustment of the components. Prerequisites: EET 324 and EET 343 or equivalent.
EET 451. Communications-Optical Systems (4). Application of fiber optics to communications systems including measurement of parameters, sources, detectors, and construction of fiber optic communication links. Prerequisite: EET 323. Three hours lecture and two hours laboratory per week.
EET 452. Computer Networks (4). A study of computer network protocols, topologies, and device configurations. Prerequisite: EET 375. Three hours lecture and two hours laboratory per week.
EET 453. Communications-Microwave Systems (4). Analysis of the radiation and propagation of the communication signal, and the application of antennas for impedance matching and for providing
systems gain. Prerequisite: EET 323. Two hours lecture and four hours laboratory per week.
EET 455. Electronic Communications (4). An introduction to electronic communications circuits. Prerequisite: EET 312. Two hours lecture and four hours laboratory per week.
EET 475. Microcontrollers (4). Use and programming of microcontrollers in the design and implementation of embedded controller systems. Prerequisites: EET 375 and EET 376.
EET 477. Robotics (4). Microprocessor applications in robotics, automated systems, and digital control. Prerequisites: EET 375 and EET 342. Three hours lecture and two hours laboratory per week.
EET 478. Senior Project I (2). Research, planning, and conceptual section of a capstone analysis and design project. Collaborative group endeavors in cooperation with industry, community, or government entities are encouraged. Prerequisite: permission of instructor. Evidence of extensive and thorough laboratory performance is required.
EET 479. Senior Project II (2). Development section of a capstone analysis and design project where the creation of a prototype or method for the advancement of a concept takes place. Prerequisite: EET 478. Evidence of extensive performance is required.
EET 489. Senior Technical Presentations (2). Written and oral presentation section of a capstone analysis and design project where communication of technical concepts takes place. Prerequisite: EET 478.

## Bachelor of Science Industrial Technology Major

Advisors
William Cattin, MS (Coordinator)
Scott Calahan, MEd
Lad Holden, MS
Craig Johnson, PhD
This major prepares the graduate for leadership positions in industry and technical distribution. The program applies algebra, trigonometry, and the physical sciences to industrial systems. Students select 40-41 credits by advisement in an area of technical interest. Areas of interest may include technology (general), industrial distribution, industrial electronics, industrial manufacturing, industrial supervision, power systems, cast metals, metal fabrication, nondestructive testing, wood production, or other technical areas by departmental advisement. With departmental approval, transfer students from technical programs may elect to use their technical degree as the elective area of interest.

Students pursuing this degree should work closely with their department advisor to assure that they have met the prerequisites for the upper-division electives.

## Required Courses

CHEM 111/ 111LAB - Introduction to
Chemistry and Laboratory. . . . . . . . . . . . . . 5
OR
CHEM 181/181LAB - General Chemistry and Laboratory (5)
EET 221 - Basic Electricity . . . . . . . . . . . . . . . . 5
EET 312 - Basic Electronics . . . . . . . . . . . . . . . . 5
EET 342 - Instrumentation . . . . . . . . . . . . . . . . . 4
IET 160 - Computer-aided Design and
Drafting
. 4
IET 301 - Engineering Project Cost Analysis 4
IET 380 - Quality Control . . . . . . . . . . . . . . . 4
IET 385 - Product Design and Development 4
IET 442 - Alternative Energy and Technology5
IET 455 - Project Management. . . . . . . . . . . . . 4
IET 490 - Cooperative Education (summer
quarter only) . . . . . . . . . . . . . . . . . . . . . . . . . 4
IT 101 - Computer Applications . . . . . . . . . . . 3
MATH 154 - Pre-calculus Mathematics II . . . 5
MET 310 - Hydraulics/Pneumatics . . . . . . . . 4
MET 345 - Production Technology . . . . . . . . 4
MET 351 - Metallurgy / Materials and
Processes .................................. . . . 4
PHYS 111/111LAB - Introductory Physics
and Laboratory
.5
SHM 325 - Manufacturing Safety . . . . . . . . . 3
ADMG 385 - Business Communications
and Report Writing (5) .4-5
OR
ENG 310 - Technical Writing (4)
Computer or IT Elective
(IET-department approved) . . . . . . . . . . 3-4
Sub Total of Credits: 83-85
Technical Specialization Credits: 24-25 (By advisement)

Total Credits: 107-110
Transfer students MUST complete
a minimum of 25 credits from the IET
Department.

## Industrial Technology Minor

## Advisors

William Cattin, MS
Scott Calahan, MEd
Lad Holden, MS
Craig Johnson, PhD
Required Courses
Courses to be selected from Department of Industrial Technology courses under department advisement.

Total Credits: 25

## Bachelor of Applied Science Industrial Technology Major

Advisors
William Cattin, MS (coordinator)
Scott Calahan, MEd
Lad Holden, MS
Craig Johnson, PhD

The bachelor of applied science in industrial technology allows persons who have worked in industry for a period of time
to enhance their career potential by utilizing their community college education and on-the-job experience to earn a baccalaureate degree after taking upper-division coursework. The goal of the program is to provide students with technical skills and knowledge to function as professionals within the industrial environment.

## Admission Requirements

Prior to being admitted the student entering the BAS industrial technology major will have:

- An appropriate and approved associate degree as issued by a Washington State community college
- Taken at least 20 credits of general education basic skills courses
- Completed prerequisites for the major
- Taken course equivalencies to IET 160, BUS 221, and EET 221
- Completed 2,000 hours of recent, documented work experience in an industrial technology-related job and approved by the department chair


## Prerequisites

CHEM 111, 111LAB - Introductory

IT 101 - Computer Applications . . . . . . . . . . . 3
MATH 153 - Pre-Calculus Mathematics I . . . 5
PHYS 111, 111LAB - Introductory Physics . . 5

## Required Courses

ADMG 385 - Business Communications and Report Writing
BUS 221 - Introductory Business Statistics . . 5
EET 221 - Basic Electricity . . . . . . . . . . . . . . . . 5
IET 160 - Computer Aided Design and Drafting
IET 301 - Engineering Project Cost Analysis 4
IET 380 - Quality Control . . . . . . . . . . . . . . . . 4
IET 385 - Product Design and Development 4
IET 442 - Alternative Energy and
Technology . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
IET 455 - Project Management. . . . . . . . . . . . . 4
IET 490 - Cooperative Education (summer quarter only)
MET 345 - Production Technology ........ . 4
SHM 325 - Manufacturing Safety . . . . . . . . . 3
Departmental-approved Electives . . . . . . . 12
The student must select 12 credits to complete a total of 62 credit hours.

Total Credits: 80

## Industrial and Engineering Technology Courses

IET 101. Modern Technology and Energy (5). A study of how basic scientific principles are applied daily in industrial societies through a survey of transportation, energy and power, construction, and consumer product technologies.
IET 145. Machine Woodworking (4). Machine and tool operations, wood technology, designing and construction principles,
finishing methods and materials. Two hours lecture and four hours laboratory per week.
IET 160. Computer Aided Design and Drafting (4). Hands-on training in the operation of AutoCAD's design and drafting software system with emphasis on features, limitations, and dimensioning strategy.
IET 161. Architectural Computer Aided Design (3).
IET 210. Energy Sources and Power (3). A study of the various forms of power, its generation, application, and implications for technology and a technological society.
IET 215. Small Engines (4). Maintenance and repair of one- and two-cylinder internal combustion engines. Prerequisite: IET 210 or permission of instructor. Two hours lecture and four hours laboratory per week.
IET 265. Three-Dimensional Modeling (4). Design of parts, assemblies, and working drawings using 3-D solid modeling software, basic theory of threaded fasteners and gears, wielding representation, geometric dimensioning, and tolerancing. Prerequisites: IET 160 and IET 165 or permission of instructor. Two hours lecture and four hours laboratory per week.
IET 290. Cooperative Education (1-15). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
IET 296. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
IET 298. Special Topics (1-6).
IET 299. Seminar (1-5). May be repeated.
IET 301. Engineering Project Cost Analysis (4). Techniques of economic cost analysis applied to engineering projects: interest, present value, annual equivalence, rate of return, payout criteria, and break-even modeling. Prerequisite: MATH 153.
IET 311. Statics (4). Introductory statics including forces and equilibrium. Principles of structures including trusses, beams, frames, machines, and friction. Prerequisites: PHYS 111, 211, and MATH 173 or permission of instructor.
IET 312. Strength of Materials (4). Strength of materials, including stress analysis of axially loaded members, torsional members, beams, and indeterminate structures. Prerequisite: IET 311.
IET 315. Vehicle Electric Systems (4). Starting, charging, regulation, ignition, and onboard microprocessor systems as used in automobiles, industrial materials handling vehicles, and recreational vehicles. Prerequisite: IET 210. Two hours lecture and four hours laboratory per week.
IET 353. Pattern Making (4). Prerequisite: MET 257 or permission of instructor. Two hours lecture and four hours laboratory per week.

IET 360. Brewing Process Technology (3). Study of brewing technology including equipment and processes from the brewhouse through packaging and distribution. Topics include factors that affect product quality. Prerequisites: students must have earned a grade of C or better in CHEM 101, or CHEM 111, or CHEM 181, and MATH 153, or permission of the instructor. Students must be accepted into Craft Beer Trade Certificate program or by permission of the instructor.
IET 373. Programmable Logic Controller Applications (4). A study of programmable logic controller concepts, components, systems, programming, and applications. Prerequisite: permission of instructor. Three hours lecture and two hours laboratory per week.
IET 380. Quality Control (4). Provides the foundation necessary to understand and apply statistical quality control techniques, product reliability procedures, and the management aspects of quality assurance. Prerequisite: BUS 221 or MATH 311 or PSY 362.

IET 385. Product Design and Development (4). Methodology for the design and development of industrial and commercial products from conceptual stage to product introduction into the marketplace. Projectbased instructional structure. Three hours lecture per week.
IET 389. Technical Presentations (3).
Written and oral presentations based on technical reference material utilizing the library, technical society publications, and the Internet. Prerequisite: permission of instructor.
IET 398. Special Topics (1-6).
IET 430. Methods of Teaching Industrial Education (3).
IET 433. Industrial Education Laboratory Planning (3). Planning of school shop and labs, new construction and remodeling of facilities. Management of industrial education facilities, inventories: records of tools, equipment, materials; safety and student personnel.
IET 442. Alternative Energy Resources and Technology (5). Overview of energy systems, with focus on wind, biomass, solar, biodiesel, geothermal, and sustainable energy systems. Includes energy production and conversion. Field trips. Prerequisite: junior standing. IET 442 and GEOG 442 are cross-listed courses.
IET 455. Engineering Project Management
(4). Project-based synthesis used in engineering project management. Topics; bidding, contract management, scheduling, cost estimating and control, logistics, conflict management, team building, negotiating, and risk assessment. Prerequisite: permission of the instructor. IET 455 and IET 555 are equivalent courses. Students may not receive credit for both. Instructor consent should be based on student industrial experience and education.

IET 457. Advanced Foundry (4). Prerequisite: MET 257, IET 353, or permission of instructor. Two hours lecture and four hours laboratory per week.
IET 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
IET 491. Workshop (1-6).
IET 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
IET 498. Special Topics (1-6).
IET 499. Seminar (1-5). May be repeated.

## Bachelor of Science <br> Mechanical Engineering <br> Technology Major with Specialization

Coordinator and Advisors
Craig Johnson, PhD (Coordinator)
Roger Beardsley, MS
William Cattin, MS

The bachelor of science degree in mechanical engineering technology (MET) has specializations in mechanical or manufacturing technology. The major provides a broad foundation in the practical application of mechanical engineering principles. Graduates concentrating in mechanical technology may pursue one of the following career paths: machine and product design, product and system evaluation, plant operation and management, technical sales, field service, environmental quality control, and energy production. Graduates specializing in manufacturing technology are prepared to enter career paths as tool designers, tool and production planners, numerical control programmers, machine planners, computer-assisted machine planners, manufacturing process analysts, quality assurance, and technical field representatives.

In the absence of an appropriate background, the student may find it necessary to take IET 165, Engineering Drawing I. Those students who are interested in engineering courses after graduation should complete the engineering physics sequence, (PHYS $181,182,183$ ) and mathematics through differential equations.

Due to the number of hours in this program, some students may find that this program requires additional time to complete. Students pursuing this degree should work with the departmental advisor to assure that the prerequisites for the upper-division electives have been met.
Mechanical Engineering TechnologyCore Requirements
Computer Science Elective ..... 4
CHEM 181 - General Chemistry I .....  4
CHEM 181LAB - General Chemistry Laboratory I ..... 1
COM 345 - Business and Professional Speaking ..... 4
EET 221 - Basic Electricity ..... 5
ENG 310 - Technical Writing ..... 4
IET 160 - Computer-aided Design and Drafting ..... 4
IET 265 - Three-dimensional Modeling .....  4
IET 311 - Statics .....  4
IET 312 - Strength of Materials .....  4
MATH 154 - Pre-calculus Mathematics II
OR technical elective .....  5
MATH 172 - Calculus I. .....  5
MATH 173 - Calculus II ..... 5
MET 255 - Machining .....  4
MET 314 - Applied Thermodynamics .....  4
MET 314LAB - Applied Thermodynamics Laboratory .....  1
MET 315 - Fluid Dynamics .....  5
MET 327 - Technical Dynamics .....  4
MET 327LAB - Technical Dynamics Laboratory .....  1
MET 351 - Metallurgy / Materials and Processes .....  4
MET 418 - Mechanical Design I ..... 5
MET 419 - Mechanical Design II .....  5
MET 426 - Applications in Strength of Materials ..... 4
MET 495A - Senior Project I .....  3
MET 495B - Senior Project II ..... 3
MET 495C - Senior Project III .....  3
PHYS 111 - Introductory Physics .....  4
ANDPHYS 111LAB - Introductory Physics
Laboratory .....  1
ORPHYS 181 - General Physics (4)
ANDPHYS 181LAB - General PhysicsLaboratory (1)
PHYS 112 - Introductory Physics II ..... 4
ANDPHYS 112LAB - Introductory PhysicsLaboratory II1
ORPHYS 182 - General Physics II (4)ANDPHYS 182LAB - General PhysicsLaboratory II (1)
PHYS 113 - Introductory Physics III

$\qquad$ AND PHYS 113LAB - Introductory Physics Laboratory III. $\qquad$ OR
PHYS 183 - General Physics III (4) AND
PHYS 183LAB - General Physics Laboratory III (1)

MET Core Total Credits: 114

## Mechanical Technology Specialization

Advisors
Craig Johnson, PhD
Roger Beardsley, MS
William Cattin, MS

## Required Courses

MET Core Requirements . . . . . . . . . . . . . . . 114
EET 332 - Electrical Power and Machinery . 4
MET 316 - Applied Heat Transfer . . . . . . . . . 5
MET 411 - Energy Systems I . . . . . . . . . . . . . . . 5
Department-approved technical electives selected from the following . . . . . . . . .8-9
EET 342 - Instrumentation (4)
IET 301 - Engineering Project Cost Analysis (4)
MET 320 - Fundamentals of Laser Technology (4)
MET 382 - Plastics and Composites (4)
MET 412 - Alternative Energy Systems (5)
MET 420 - Finite Element Analysis (4)
MET 423 - Computer-aided Design and Manufacturing (4) MET 483 - Ceramics and Composites (4)

Total Credits: 136 to 137

## Manufacturing Technology Specialization

## Advisors

Craig Johnson, PhD
Roger Beardsley, MS

## Required Courses

MET Core Requirements . . . . . . . . . . . . . . . 114
MET 345 - Production Technology . . . . . . . . 4
MET 355 - Advanced Machining and CNC
Programming
. .4
MET 388 - Tool Design . . . . . . . . . . . . . . . . . . . 4
MET 423 - Computer-aided Design and
Manufacturing .......................... . . . 4
Department-approved technical electives selected from the following
.. 8
BUS 221 - Introductory Business Statistics (5)
IET 380 - Quality Control (4)
MET 257 - Casting Processes (4)
MET 310 - Hydraulics / Pneumatics (4)
MET 357 - Welding/Fabrication (4)
MET 382 - Plastics and Composites (4)
MET 483 - Ceramics and Composites (4)
Total Credits: 138

## Mechanical Engineering Technology Courses

MET 255. Machining (4). Basic operations and technical information concerning common metal working machines and metal machining processes. Two hours lecture and four hours laboratory per week.
MET 257. Casting Processes (4). Theory and practice in green sand, shell core, permanent mold, no bake, and evaporation casting processes. Two hours lecture and four hours laboratory per week.

MET 310. Hydraulics/Pneumatics (4). A study of the application, controls, and uses of air and liquid for the transmission of power. Prerequisite: IET 210 or permission of instructor. Two hours lecture and four hours laboratory per week.
MET 314. Applied Thermodynamics (4). Properties of pure substances, first and second laws of thermodynamics, enthalpy and entropy, perfect gases, Carnot cycle, steam cycles, refrigeration cycles, mixtures of perfect gases, chemical reactions, and combustion. Prerequisite PHYS 182 or PHYS 112 and MATH 173; co-requisite: MET 314LAB. Four hours lecture per week.
MET 314LAB. Applied Thermodynamics Laboratory (1). Practical application of thermodynamics systems teaching First and Second Law of Thermodynamics principles. Lab work includes usage of state-of-theart instrumentation and data systems. Prerequisites: PHYS 182 or 112 and MATH 173; co-requisite: MET 314 or permission of instructor.
MET 315. Fluid Dynamics (5). Fluid statics, continuity, Bernoulli and the general energy equation, laminar and turbulent flow, friction losses in pipes and ducts, pump performance and selection, compressible flow, and fluid measurements. Prerequisite MET 314 and IET 311. Four hours lecture and two hours laboratory per week.
MET 316. Applied Heat Transfer (5). Steady and unsteady state heat conduction, free convection, forced convection in tubes, forced convection over exterior surfaces, radiation heat transfer, change in phase heat transfer, heat exchangers, and heat pipes. Prerequisite: MET 314. Four hours lecture and two hours laboratory per week.
MET 320. Fundamentals of Laser Technology (4). Overview of laser technology with emphasis on laser characteristics, safety, and applications. Prerequisite PHYS 113 or permission of instructor. Four hours lecture per week.
MET 327. Technical Dynamics (4). Topics: rectilinear and curvilinear motion, rotational kinematics, work, energy and power, linear impulse and momentum, angular impulse and momentum, rigid body motion, relative motion and vibrations. Prerequisite: IET 311 or permission of instructor, co-requisite, MET 327LAB.
MET 327LAB. Technical Dynamics Laboratory (1). Practical application of dynamical systems including usage of state-of-the-art instrumentation and data recording systems. Prerequisite: IET 311; co-requisite: MET 327 or permission of instructor.
MET 345. Production Technology (4).
Mass production principles, organization for production, product engineering, production system design, jig, and fixture development, special problems in production. Prerequisite: permission of instructor.

MET 351. Metallurgy/Materials and
Processes (4). Ferrous and nonferrous metals and alloys; polymeric, ceramic, and cellular materials; use of phase diagrams, cooling curves, stress-strain diagrams, and metallography. Prerequisites: CHEM 111 or CHEM 181.
MET 355. Advanced Machining and CNC Programming (4). Machining of metallic and non-metallic materials on automated equipment; mass production technology; programming and operation of CNC equipment. Prerequisite: MET 255 or permission of instructor.
MET 357. Welding/Fabrication (4). Theory and practice in arc welding, oxyacetylene welding and cutting, MIG, TIG, and plastic welding. Two hours lecture and four hours laboratory per week.
MET 382. Plastics and Composites (4). Composition, characteristics, and classifications of plastics and composite materials incorporating industrial applications, processing, and fabrication. Prerequisite: CHEM 111 and CHEM 111LAB or CHEM 181 and CHEM 181LAB.
MET 411. Energy Systems I (5). Power generation, energy reserves, fuels, reciprocating machines, internal combustion engines, rotating compressors, axial flow turbines, and gas turbine power. Prerequisite MET 316. Four hours lecture and two hours laboratory per week.
MET 412. Alternative Energy Systems (5). Comprehensive overview of alternative energy technology including societal issues, energy reserves, fossil, nuclear, solar, wind, geothermal, hydrogen and biomass energy sources, and advanced energy conversion systems. Prerequisite permission of instructor.
MET 418. Mechanical Design I (5). Study of shafts, springs, couplings, clutches, bearings, cams, linkages, and crank mechanisms. Prerequisites: MET 426, MET 327, IET 265. Four hours lecture and two hours laboratory per week.
MET 419. Mechanical Design II (5). Fasteners, welds, machine frames, pressure vessels, hydraulic cylinders, electrical motors, and actuators. Prerequisite: MET 418. Four hours lecture and two hours laboratory per week.
MET 420. Finite Element Analysis (4). Computerized modeling of structural, vibrational, and thermal design problems. Prerequisites: IET 160, MET 426, or permission of instructor. Two hours lecture and four hours laboratory.
MET 423. Computer-aided Design and Manufacturing (4). Integrates Computeraided Design (CAD) and Computer-aided Manufacturing (CAM). Prerequisites MET 418, IET 160, and MET 255, or permission of instructor. Three hours lecture and two hours laboratory per week.
MET 426. Applications in Strength of Materials (4). Topics support stress analysis, and design. Laboratory activities include material strength, hardness, impact testing,
strain gage technology, photoelasticity, ultrasonics, and eddy current. Prerequisite: IET 312 and MET 351.
MET 483. Ceramics and Composites (4). Composition, characterization, and classification of ceramics and related composite materials incorporating industrial applications, processing, and fabrication. Prerequisite: CHEM 111LAB or CHEM 181LAB.
MET 495A. Senior Project I (3). The senior project is a capstone course that integrates all the major elements of the MET curriculum in a project-related activity. The topic is chosen by the student in concurrence with the instructor and must include elements of planning, design, and analysis (Phase I), construction (Phase II), and test and evaluation (Phase III). Collaboration with representatives of industry, government agencies, or community institutions is encouraged. As an alternative, it will be possible to select a design study for the senior project for all three quarters, providing it is sufficiently comprehensive and approved by the MET advisor. Prerequisite for MET 495A is MET 315. Prerequisite for MET 495B is MET 495A. Prerequisite for MET 495C is MET 495B. Courses must be taken in sequence.
MET 495B. Senior Project II (3). The senior project is a capstone course that integrates all the major elements of the MET curriculum in a project-related activity. The topic is chosen by the student in concurrence with the instructor and must include elements of planning, design, and analysis (Phase I), construction (Phase II), and test and evaluation (Phase III). Collaboration with representatives of industry, government agencies, or community institutions is encouraged. As an alternative, it will be possible to select a design study for the senior project for all three quarters, providing it is sufficiently comprehensive and approved by the MET advisor. Prerequisite for MET 495A is MET 315. Prerequisite for MET 495B is MET 495A. Prerequisite for MET 495C is MET 495B. Courses must be taken in sequence.
MET 495C. Senior Project III (3). The senior project is a capstone course that integrates all the major elements of the MET curriculum in a project-related activity. The topic is chosen by the student in concurrence with the instructor and must include elements of planning, design, and analysis (Phase I), construction (Phase II), and test and evaluation (Phase III). Collaboration with representatives of industry, government agencies, or community institutions is encouraged. As an alternative, it will be possible to select a design study for the senior project for all three quarters, providing it is sufficiently comprehensive and approved by the MET advisor. Prerequisite for MET 495A is MET 315. Prerequisite for MET 495B is MET 495A. Prerequisite for MET 495C is MET 495B. Courses must be taken in sequence.

Bachelor of Science<br>Technology Education Broad Area Major<br>Advisor<br>Scott Calahan, MEd (coordinator)

This bachelor of science teaching major satisfies the endorsement for technology education.

Students selecting this major must have a basic background in woods, metals, drafting, and mathematics through trigonometry. IET 430 is a prerequisite for student teaching. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

## Preadmission Courses

CHEM 111/111LAB - Introduction to Chemistry.
MATH 153 - Pre-Calculus I . . . . . . . . . . . . . . . 5
PHYS 111/111LAB - Introductory Physics . . 5

## Required Courses

EET 221 - Basic Electricity . . . . . . . . . . . . . . . . 5
EET 312 - Basic Electronics . . . . . . . . . . . . . . . 5
IET 145 - Machine Woodworking . . . . . . . . . 4
IET 160 - Computer-aided Design and Drafting
IET 210 - Energy Sources and Power ..... 3
IET 265 - Three-dimensional Modeling .....  4
IET 385 - Product Design andDevelopment4
IET 430 - Methods of Teaching IndustrialEducation3
IET 433 - Industrial Education LaboratoryPlanning3
MET 310 - Hydraulics and Pneumatics . ..... 4
MET 255 - Machining .....  4
MET 345 - Production Technology ..... 4
MET 357 - Welding/Fabrication ..... 4
MET 382 - Plastics and Composites ..... 4
OCED 410 - Career and Technical EducationSchool to Work Programs4
SHM 325 - Manufacturing Safety ..... 3
Select five to eight credits by advisement ..... 5-8


## Bachelor of Science Technology Education Major

Advisor
Scott Calahan, MEd (coordinator)

This bachelor of science teaching major satisfies the endorsement for technology education.

Students selecting this major must also select a minor or other education endorsement. Admission to this program requires that students must have completed CHEM 111, MATH 153, and PHYS 111. (Equivalent courses will be allowed.) In absence of this background, courses may be taken at this university. IET 430 is a prerequisite for student teaching. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

Preadmission Courses
CHEM 111/ 111LAB - Introduction to
Chemistry . 5
MATH 153 - Pre-Calculus I . . . . . . . . . . . . . . . 5
PHYS 111/111LAB - Introductory Physics . . 5
Required courses
IET 145 - Machine Woodworking ......... . . 4
IET 160 - Computer-aided Design and Drafting4

IET 210 - Energy Sources and Power . . . . . . . 3
MET 255 - Metal Machining . . . . . . . . . . . . . . 4
IET 265 - Three-dimensional Modeling .... 4
EET 221 - Basic Electricity . . . . . . . . . . . . . . . . . 5
EET 312 - Basic Electronics . . . . . . . . . . . . . . . 5
MET 310 - Hydraulics and Pneumatics . . . . . 4
MET 345 - Production Technology . . . . . . . . 4
MET 357 - Welding/Fabrication . . . . . . . . . . 4
IET 385 - Product Design and Development 4
IET 430 - Methods in Industrial Education . 3
IET 433 - Industrial Education
Laboratory Planning
Total Credits: 66
The IET department strongly suggests for a student to be more competitive in the job market, the following additional courses should be taken.

SHM 325 - Manufacturing Safety (3)
MET 382 - Plastics and Composites (4)
OCED 410 - Career and Technical
Education School to Work Programs (4)

## Electronics - Computer Hardware Minor

Advisor
John (Jack) A. Gumaer, MS
Lad Holden, MT
Required Courses
EET 221* - Basic Electricity . . . . . . . . . . . . . . . 5
EET 312 - Basic Electronics . . . . . . . . . . . . . . . . 5
EET 371 - Digital Circuits . . . . . . . . . . . . . . . . 4
EET 372 - Advanced Digital Circuits . . . . . . . 4

EET 375 - Microprocessor Applications .... 4
EET 376 - Microprocessors and
Instrumentation . . . . . . . . . . . . . . . . . . . . . . 4
EET 476 - Mini-computer Technology . . . . . . 4
Total Credits: 30
*MATH 153 or MATH 162 is required for EET 221.

## SAFETY AND HEALTH <br> MANAGEMENT <br> PROGRAM

Ellensburg
Hogue Hall, room 107
509-963-1756
Fax: 509-963-1795
www.cwu.edu / ~iet

## Advisors

John O'Neill, MPA
Michael L. Whelan, PhD

## Program Information

The vision for the BS major in safety and health management is one that is recognized for preparing students to be well-rounded safety practitioners who have the confidence and capabilities to navigate the complex organizational and knowledge networks necessary to succeed in contemporary safety and health management.

The safety and health field includes many industries, functions, and occupations. Graduates from the curriculum have a history of high employment rates and competitive starting salaries.

The BS in safety and health management is the primary program for the student seeking a baccalaureate degree leading to a career in safety and health management. The program requires completion of an approved minor or second major.

## Admission Requirements

Applications are accepted throughout the academic year. Admission to the program is based upon a review of completed prerequisite courses and application materials Please see the program application at www.cwu.edu/ ~iet / programs / shm/ documents/bsshm_app.doc.

Admission to any course required a grade of $C$ or better in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be removed from the course.

A student is expected to complete each course used to fulfill a degree program
requirement with a grade of C or better. Students must complete all CWU basic and breadth requirements prior to beginning 400 level SHM coursework.

## Bachelor of Science

## Safety and Health Management Major

## Required Courses

HRM 381 - Management of Human
Resources . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MGT 380 - Organizational Management. . . . 5
Choose one of the following courses . . . . . .4-5
ADMG 385 - Business Communications and Report Writing (5)
COM 345 - Business and Professional Speaking (4)
ENG 310 - Technical Writing (4)
Choose one of the following courses . . . . . .4-5 MGT 386 - Principles of Organizational Behavior (5)
PSY 456 - Industrial and Organizaitonal Psychology (4)
Choose one SHM Industry Practice Course . 3
SHM 321 - Agriculture Safety (3)
SHM 323 - Construction Safety (3)
SHM 325 - Manufacturing Safety (3)
SHM 327 - Research and Laboratory Safety (3)
SHM Core Functions courses
SHM 351 - Incident Analysis (4)
SHM 352 - Systems and Design (4)
SHM 353 - Risk and Insurance (4)
Choose three SHM Program Management courses
SHM 371 - Emergency Planning and Preparedness (4)
SHM 373 - Industrial Machinery and Process Safety (4)
SHM 375 - Transportation and Fleet Safety (4)
SHM 377 - Hazardous Materials Management (4)
SHM 379 - Facility and Building Safety (4)
Select from the following SHM Analysis
and Design courses .
SHM 471 - Industrial Hygiene I (4)
SHM 472 - Industrial Hygiene II (4)
SHM 474 - Safety and Health Management Systems (4)
SHM 475 - Management System Auditing (4)
SHM 477 - Environmental Management (4)
SHM Synthesis Courses . . . . . . . . . . . . . . . . . . 8
SHM 481 - Professional Safety Today (1)
SHM 485 - Safety and Health
Management Capstone (4)
SHM 490 - Cooperative Education (1-12)
Total Credits: 65-67
Plus an approved minor or
second major .36-37

Total Credits: 101-104

## Bachelor of Applied Science Occupational Safety and Health Major <br> Advisors <br> John O'Neill, MPA <br> Michael L. Whelan, PhD <br> Program Information

The bachelor of applied science (BAS) major in occupational safety and health allows persons who have worked in industry for a period of time to enhance their career potential by utilizing their community college educational and on-the-job experience to earn a baccalaureate degree following completion of upper-division coursework. The goal of the program is to prepare and enable students to fill professional level positions as managers within the broad area of industrial safety and health.

The program provides course options for the student to tailor the program to their specific career interests. The program is offered at the Ellensburg campus and the CWU centers in Lynnwood and Des Moines. Admission to any course requires a grade of $C$ or better in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be removed from the course. Students are expected to complete each course used to fulfill a degree program requirement with a grade of $C$ or better. Students must complete all CWU basic and breadth requirements prior to beginning 400 level SHM coursework.

## Admission Requirements

A student wishing to enter the BAS occupational safety and health major must have:

- An appropriate and approved associate degree
- Completed at least 20 credits of general education basic skills courses
- Completed the program prerequisites

Applications are accepted throughout the academic year. Please see the program application for prerequisites available on the Web at www.cwu.edu / iet / programs/shm/ documents/bashosh_app.doc.

Required Basic and Breadth Courses
ENG 101 - English Composition I. . . . . . . . . . 4
ENG 102 - English Composition II . . . . . . . . . . 4
PSY 101 - General Psychology. . . . . . . . . . . . . . 5
Choose one of the following courses . . . . . . . 5
MATH 101 - Mathematics in the Modern World (5)
MATH 153 - Pre-calculus Mathematics I (5)
MATH 154 - Pre-calculus Mathematics II (5)
MATH 172 - Calculus I (5)
MATH 102 - Mathematical Decision Making 5

## OR

MATH 130 - Finite Mathematics (5)
CHEM 101 - Contemporary Chemistry . . . . . 5 OR

CHEM 111/ 111LAB - Introduction to Chemistry (5)
OR
CHEM 181/181LAB - General
Chemistry I (5)
BIOL 201 - Human Physiology . . . . . . . . . . . . 5
IT 101 - Computer Applications (3) . . . . . . .3-4 OR
CS 101 - Computer Basics (4)

## Required Courses

MGT 380 - Organizational Management ... 5
OR
HRM 381 - Human Resources
Management (5)
SHM 351 - Incident Analysis . . . . . . . . . . . . . . 4
SHM 352 - Systems and Design . . . . . . . . . . . . 4
SHM 353 - Risk and Insurance . . . . . . . . . . . . 4
Select from the following SHM Program
Management Courses.
SHM 371 - Emergency Planning and Preparedness (4)
SHM 373 - Industrial Machinery and Process Safety (4)
SHM 375 - Transportation and Fleet Safety (4)
SHM 377 - Hazardous Materials Management (4)
SHM 379 - Facility and Building Safety (4)
Select from the following SHM Analysis
and Design courses . . . . . . . . . . . . . . . . . . . . 8
SHM 474 - Safety and Health
Management Systems (4)
SHM 475 - Management System
Auditing (4)
SHM 477 - Environmental
Management (4)
SHM 485 - Safety and health Management
Capstone. . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Elective Courses
Department-approved electives
23
Total Credits: 96-97

## Construction Safety Minor

## Advisors

John O'Neill, MPA
Michael L. Whelan, PhD

## Program Information

The construction safety minor provides a broad coverage of construction management issues that affect safety and health performance during construction work. Enrollment in upper-division CMGT courses is based upon space availability. This program is only available at the Ellensburg campus.

Admission to any course requires a grade of $C$ or better in each prerequisite listed. Students who do not meet the prerequisite will be removed from the course. Students are expected to complete each course used to fulfill a program requirement with a grade of C or better.

## Admission Requirements

The construction safety minor is only available to BS safety and health management majors. Applications are accepted throughout the academic year. Please see the program application available on the Web at www.
cwu.edu / ~iet/programs/shm/documents/ csminor_app.doc for additional information.

## Required Courses

BUS 241 - Legal Environment of Business. . . 5
CMGT 265 - Blueprint Reading and
Construction Graphics . $\qquad$
CMGT 346 - Construction Methods and Materials. .4

OR
CMGT 347 - Heavy Civil Methods and
Materials (4)
CMGT 442 - Building Service Systems. . . . . . 3 OR
CMGT 443 - Heavy Civil Utilities (3)
CMGT 444 - Codes, Contracts, and
Specifications.
OR
CMGT 445 - Heavy Civil Contract Law (4)
IET 490 - Cooperative Education . . . . . . . . . . 3
SHM 323 - Construction Safety . . . . . . . . . . . . 3
Total Credits: 26

## Occupational Safety Technology Minor

## Advisors

John O'Neill, MPA
Michael L. Whelan, PhD

## Program Information

The occupational safety technology minor provides a balance of technical and process skills used in safety and health practice.

The program is offered at the Ellensburg campus and the CWU centers in Lynnwood and Des Moines.

Admission to any course requires a grade of $C$ or better in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be removed from the course. Students are expected to complete each course used to fulfill a program requirement with a grade of $C$ or better.

## Admission Requirements

Students enrolled in the BAS OSH program are not permitted to enroll in this minor. Applications are accepted throughout the academic year. Please see the program application available in the Web at www. cwu.edu/~iet/programs/shm/documents/ ostminor_app.doc for additional information.

## Required Courses

SHM 351 - Incident Analysis . . . . . . . . . . . . . . 4
SHM 352 - Systems and Design . . . . . . . . . . . 4
SHM 353 - Risk and Insurance . . . . . . . . . . . . 4

## Elective Courses

Department-approved electives . . . . . . . . . . 12
Total Credits: 24

## Safety and Health Management Minor

## Advisors

John O'Neill, MPA
Michael L. Whelan, PhD

## Program Information

The safety and health management minor is designed for students who are interested
in safety and health in the workplace. The program provides course options for the student to tailor the program to their specific career interests. The program is offered at the Ellensburg campus and the CWU centers in Lynnwood and Des Moines. Course selections should best fit the student's major program. Admission to any course required a grade of $C$ or better in each prerequisite listed. Students who do not meet the prerequisite grade requirement will be removed from the course. Students are expected to complete each course used to fulfill a degree program requirement with a grade of $C$ or better.

## Admission Requirements

The safety and health management minor is not available to students majoring in either the BS safety and health management or BAS occupational safety and health programs. Applications are accepted throughout the academic year. Please see the program application for preferences and evaluation available at www.cwu.edu/ ~iet/programs / shm/documents/shmminor_app.doc.

## Required Courses

Select one SHM Industry Practice
Course. . . . . . . . . . . . . . . . . . . . . .
SHM 321 - Agriculture Safety (3)
SHM 323 - Construction Safety (3)
SHM 325 - Manufacturing Safety (3)
SHM 327 - Research and Laboratory Safety (3)
SHM Core Functions courses. . . . . . . . . . . . 12
SHM 351 - Incident Analysis (4)
SHM 352 - Systems and Design (4)
SHM 353 - Risk and Insurance (4)
Select two SHM Program Management
courses . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8
SHM 371 - Emergency Planning and Preparedness (4)
SHM 373 - Industrial Machinery and Process Safety (4)
SHM 375 - Transportation and Fleet Safety (4)
SHM 377 - Hazardous Materials Management (4)
SHM 379 - Facility and Building Safety (4)
Total Credits: $\mathbf{2 3}$

## Traffic Safety Education Minor

## Advisor

Scott Calahan, MEd (Summer only)
Program Information
Students desiring an endorsement to teach traffic safety education in the public schools are required to take SED 382, SED 481, SED 482, and SED 484 during the summer.

## Required Courses

SED 180 - Principles of Accident Prevention 3
*SED 382 - Driver Task Analysis . . . . . . . . . . . 3
SED 480 - Teaching Safety Education: K-12 . 3
*SED 481 - Teaching Traffic Safety Education:
Classroom and Simulation Instruction . . . 3
*SED 482 - Teaching Traffic Safety
Education in Car . . 5
*SED 484 - Safety Program Supervision .... 3
SHM 375 - Transportation and Fleet Safety. . 4
Total Credits: 24

* Required for state endorsement.


## Safety and Health Management Course

SHM 201. Introduction to Safety and Health Management (1). Overview of safety and health management profession, credentials, societies, organizations, application of math and science. Open to freshman and sophomore only. Not to be taken by students with more than 90 credit hours or prior SHM course.

## Industry Practice Courses

SHM 321. Agriculture Safety (3). A comprehensive course that covers the safety and health regulations and practices pertaining to agriculture and the food processing industry.
SHM 323. Construction Safety (3). A comprehensive course that covers the safety and health regulations and practices pertaining to the construction industry.
SHM 325. Manufacturing Safety (3). A comprehensive course that covers the safety and health regulations and practices pertaining to the manufacturing industry.
SHM 327. Research and Laboratory Safety
(3). A comprehensive course that covers the safety and health regulations and practices pertaining to the laboratory and research industry.
SHM 349. Fire Administration and Leadership (4). Analysis and research on selected topics involving contemporary issues in fire administration. Prerequisite: permission of instructor. Student must be admitted to FAL minor.
SHM 351. Incident Analysis (4).
Occupational safety and health legislation (OSHA, Workers' Compensation), anatomy of accidents, incident analysis. Prerequisite: SHM 321, or SHM 323, or SHM 325, or SHM 327, or permission of instructor. Also requires admission to BS SHM, BAS OSH, SHM minor, or OST minor program
SHM 352. Systems and Design (4). Hazard control management, systems and process engineering concepts applied to safety and health management, design for safety principles. Prerequisite: SHM 351 and either MATH 102 or MATH 130, or permission of the instructor.
SHM 353. Risk and Insurance (4). Risk management, insurance, loss control, liability, and legal foundations in safety and health management. Prerequisite: SHM 352.
SHM 371. Emergency Planning and Preparedness (4). Program management relating to emergency planning including facility security, workplace violence, emergency response planning, continuity of operations. Prerequisite: SHM 351.

SHM 373. Industrial Machinery and Process Safety (4). Program management relating to process design, materials handling, ergonomics, machinery/equipment, boilers/pressure vessels, and energy in industrial settings. Prerequisite: SHM 351.
SHM 375. Transportation and Fleet Safety (4). Program management relating to fleet safety including transportation systems loss control management, fleet management, and driver safety training. Prerequisite: SHM 351.
SHM 377. Hazardous Materials Management (4). Program management relating to the use of hazardous materials including chemical and physical properties and hazard communication. Prerequisites: SHM 351, and either CHEM 111/111LAB or CHEM 181/181LAB.
SHM 379. Facility and Building Safety
(4). Program management relating to facility and building safety including fire prevention, accessibility, confined spaces, indoor air quality and ventilation, and walking-working surfaces. Prerequisite: SHM 351.
SHM 471. Industrial Hygiene I (4). The reasons for, benefits of, and activities related to industrial hygiene with a focus upon radiological hazards and physical hazards (including ergonomics). Prerequisites: SHM 353 and BIOL 201, or permission of instructor.
SHM 472. Industrial Hygiene II (4). Continuation of industrial hygiene practice, biological and chemical hazards, toxicology, indoor air quality, ventilation. Prerequisites: SHM 377 and SHM 471 or permission of instructor.
SHM 474. Safety and Health Management Systems (4). Procedures to internally monitor safety and health management: risk management, loss control, benchmarking, measurement, and program evaluation. Prerequisite: SHM 353 and MGT 380, and two of SHM 371, SHM 373, SHM 375, SHM 377 , or SHM 379.
SHM 475. Management System Auditing (4). Procedures to externally monitor: auditing, data collection, safety and health management systems, assessment strategies, consulting, and contracts. Prerequisites: SHM 474, or SHM 477, or IET 380, and PSY 456 or MGT 386.
SHM 477. Environmental Management
(4). Overview of present and future environmental safety and health issues and environmental management systems. Prerequisites: SHM 352 and SHM 377, or permission of instructor.
SHM 481. Professional Safety Today (1). Presentations and case studies by practicing safety professionals on contemporary safety and health management topics, and professional networking techniques. Prerequisite: SHM 353.
SHM 485. Safety and Health Management Capstone (4). Senior capstone course addressing ethical considerations and knowledge synthesis. Prerequisite: SHM

353 and two of SHM 471, SHM 472, SHM 474 , SHM 475, or SHM 477, or permission of the instructor.
SHM 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. Prerequisites: either SHM 353 or SHM 353 and one SHM course numbered in the 370s, or permission of instructor. Grade will be S or U .
SHM 491. Workshop (1-6). May be repeated under different title.
SHM 496. Individual Study (1-6). May be repeated under different title. Prerequisite: permission of instructor.
SHM 498. Special Topics (1-6). May be repeated under a different topic.
SHM 499. Seminar (1-5). May be repeated.

## Safety Education Courses

SED 298. Special Topics (1-6). May be repeated under different topic
SED 382. Driver Task Analysis (3).
Introduction to traffic safety education, the highway transportation system, driver task analysis, classroom instruction techniques. Prerequisite: SED 180.
SED 398. Special Topics (1-6).
SED 481. Teaching Traffic Safety Education: Classroom and Simulation Instruction (3). Methods, materials, and techniques for teaching classroom and simulation. Experience in teaching beginning drivers. Prerequisite: SED 382 or permission of instructor.
SED 482. Teaching Traffic Safety Education: In Car (5). Methods, materials, and techniques for teaching in dual-control vehicles. Experience teaching beginning drivers. Prerequisite: SED 382 or permission of instructor.
SED 484. Safety Program Supervision (3). Development and management of a total school safety program. Prerequisite: SED 382 or permission of instructor.
SED 491. Workshop (1-6).
SED 496. Individual Study (1-6). Prerequisite: permission of instructor.
SED 498. Special Topics (1-6).
SED 499. Seminar (1-5). May be repeated.

## INFORMATION TECHNOLOGY AND ADMINISTRATIVE MANAGEMENT DEPARTMENT

Shaw-Smyser Hall, room 223
509-963-2611
www.cwu.edu/~itam
See Web site for how ITAM programs could be used for educational and career opportunities. ITAM specializations are recognized as high demand programs in the state of Washington.

## Faculty and Staff

Chair
Robert A. Lupton, PhD

## Professors

Lori A. Braunstein, PhD, information technology
Robert A. Lupton, PhD, retail management technology

## Associate Professor

Kimberlee Bartel, PhD, information technology
David Rawlinson, JD, information technology

## Assistant Professors

Natalie Lupton, MS, retail management and administrative management
Christine Bernadas, PhD, information technology
Hideki Takei, PhD, administrative management and retail technology Fen Wang, PhD, information technology

## Lecturers

Shani Watkins, MEd, BAS-ITAM program coordinator
Aaron Hazard, MBA, administrative management and information technology Angela Unruh, information technology Yvonne Alder, information technology Mary Minor, information technology Charles Wahle, MA, information technology


## Staff

Laurie Stehle, office manager and internship coordinator

## Bachelor of Science Information Technology and Administrative Management

## BS-ITAM Program Overview

The department offers coursework for the bachelor of science in information technology and administrative management. The BSITAM is comprised of three components: 1) pre-admission courses that provide foundation knowledge and skills needed for further study in ITAM, 2) ITAM core courses that focus on the core knowledge areas of ITAM: networking, Web, information management, and human-centered skills, and 3) specialization courses that allow for advanced study in one of the core knowledge areas or retail management and technology.

The program is designed to prepare students for information technology, administrative management, or retail management careers. Students completing this major will take the core courses (6565 credits) and select one of the four areas of specialization: network administration and management, Web and database administration and management, administrative management, and retail management and technology.

Several of the elective courses have prerequisites noted in the course description. IT 101, Computer Applications, or equivalent, or demonstration of computer competence is a prerequisite to this major. Students must complete at least 60 credits of upper-division courses.

## BS-ITAM Program Admission Requirements

Students must apply and be accepted into the major prior to beginning 300- or 400-level ITAM coursework. At the time of application, the 14 credits of pre-admission coursework should be completed. Application forms are available in the department office or on the department Web site. Admission shall be based on grades earned in the following courses:

## Pre-admission* Requirements

ADMG 201 - Introduction to Business ..... 3
ADMG 271 - Business Math Applications . . 4
IT 248 - Web Fundamentals . . . . . . . . . . . . . . 2
IT 260 - Integrated Information Technology
Application Projects
Pre-admission Total Credits: 14
*A cumulative GPA of 2.3 in the preadmission courses must be achieved with a minimum grade of $C$ - in each course.

BS-ITAM Graduation Requirements
The following requirements apply to students seeking the BS-ITAM degree:

Students must earn a minimum cumulative GPA of 2.3 in the ITAM coursework to be eligible for the degree.

Students must earn a minimum grade of $C$ - in each course.

## Course Fees

Most ITAM courses that use computer resources are assessed a course fee of $\$ 10$.

List of Specializations, Minors, and Certifications for the BS-ITAM

Students seeking the BS-ITAM take a common set of core courses. Additionally, students must complete a specialization within the BS-ITAM degree: network administration and management, Web and database administration and management, information technology management, or retail management and technology.

## ITAM Core Requirements

ADMG 302 - Financial Analysis of
Administrative and IT Support. . 5
ADMG 310 - Business Professional
Development
Development . . . . . . . . . . . . . . . . . . . . . . . 3
ADMG 371-Administrative Management . 4
ADMG 372 - Leadership and Supervision . . 3
ADMG 374 - Project Management . . . . . . . . . 5
ADMG 376 - Project Management and
Information Technology.
.5

ADMG 385 - Business Communications and Report Writing . 3

. . 5IT 301 - Information Technology Security,

Privacy, and Ethics
IT 351 Computer Networks . . . . . . . . . . . . . 3
IT 351 - Computer Networks . . . . . . . . . . . . . 4
IT 422 - Web Site Construction . . . . . . . . . . . . . 4
IT 468 - Projects in Database . . . . . . . . . . . . . . 4
RMT 340 - Principles of Selling . . . . . . . . . . . 4
RMT 366 - Customer Relationship
Management
.4
Total Core Credits: 51
Total Pre-admission and Core Credits: 65

## Network Administration and Management Specialization

Network administration and
management specialization students become qualified business professionals prepared
to pursue careers that apply a wide variety of network administration skills. These qualifications are complemented by business communications and human-centered skills. Graduates of the network administration and management specialization secure positions as network administrators, network analysts, network managers, data communication analysts, network operations analysts, network specialists, network technicians, PC support specialists, PC network engineers, and user support specialists.

## Required Courses

Pre-admission Requirements. . . . . . . . . . . . . 14
ITAM Core Requirements . . . . . . . . . . . . . . . 51
IT 362 - Wireless Communications . . . . . . . . . 3
IT 461 - System Analysis . . . . . . . . . . . . . . . . . 4

IT 463 - Computer Network Management . . 4
IT 464 - Directory Services . . . . . . . . . . . . . . . . . 4
IT 465 - Messaging Services. . . . . . . . . . . . . . . . 4
T 467 - Network Security . . . . . . . . . . . . . . . . 4
IT 490* - Cooperative Education ........ . 9-12
Total Credits: 97-100
*Note: Summer quarter only.

## Web and Database <br> Administration and Management Specialization

Web and database administration and management specialization students become qualified business professionals prepared to pursue careers that apply a wide variety of Web and database skills. These qualifications are complemented by business communications and humancentered skills. Graduates of the Web and database administration and management specialization secure positions as Web administrators, database administrators, Web designers, database developers, Web page developers, database managers, and Web masters.

## Web and Database Administration <br> Required Courses <br> Pre-admission Requirements. . . . . . . . . . . . . 14

ITAM Core Requirements . . . . . . . . . . . . . . . 51
IT 426 - Application of Web Languages. . . . . 4
IT 428 - Web Applications . . . . . . . . . . . . . . . . . 4
IT 461 - Systems Analysis. . . . . . . . . . . . . . . . . . 4
IT 462 - Systems Design . . . . . . . . . . . . . . . . . . 4
IT 469 - Enterprise Database Systems: SQL . 3
IT 470 - Database and the Web . . . . . . . . . . . . 4
IT 490* - Cooperative Education. . . . . . . . .9-12
Total Credits: 97-100
*Note: Summer quarter only.

## Administrative Management Specialization

Administrative management specialization students become qualified business professionals prepared to pursue careers that apply a blend of management, administrative, and information technology skills in contemporary administrative and information technology environments. These qualifications are complemented by business communications and human-centered skills. Graduates of the administrative management specialization secure careers as entry- and mid-level information technology and administrative managers.

## Required Courses

Pre-admission Requirements. . . . . . . . . . . . . 14
ITAM Core Requirements . . . . . . . . . . . . . . . 51
ADMG 424 - Administrative Management
Policy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ADMG 471 - Critical Issues in
Administrative Management . . . . . . . . . . . 4
IT 359 - Advanced Spreadsheet
Applications.

IT 461 - Systems Analysis. . . . . . . . . . . . . . . . . 4
IT 462 - Systems Design . . . . . . . . . . . . . . . . . . . 4
ADMG 490* - Cooperative Education . . . .9-12
Total Credits: 93-96
*Note: Summer quarter only.

## Retail Management and Technology Specialization

Retail management and technology specialization students become qualified business professionals prepared to pursue careers in retail environments that infuse information technology in areas such as e-commerce, management, selling, purchasing, operations, and merchandising. These qualifications are complemented by business communications and humancentered skills. Graduates of the retail management and technology specialization secure careers in store operations, store management, IT and e-commerce, sales, distribution and logistics, merchandise buying, and planning and entrepreneurship.

## Required Courses

Pre-admission Requirements. . . . . . . . . . . . . 14
Retail Core Requirements . . . . . . . . . . . . . . . 51
RMT 330 - Principles of Retailing .......... 4
RMT 335 - Retail Information Technology . . 4
RMT 350 - Retailing and E-commerce . . . . . . 4
RMT 467 - Retail Management . . . . . . . . . . . . 4
RMT/FCSA 485 - International Retailing . . . 4
RMT 490* - Cooperative Education . . . . . 9-12
Total Credits: 94-97
*Note: Summer quarter only

## Information Technology and Administration Minors or Certificates

The information technology and administrative management minors and certificates provide recognition for students who complete the specified minor or certificate courses. Such recognition will benefit students in gaining professional employment or advancing in their current professional positions.

Students fulfilling the requirements for an ITAM program degree specialization cannot earn a minor with the ITAM department. However, students may earn departmental certificates in an area other than their area of specialization.

Students fulfilling the requirements for a degree program outside the ITAM department can earn a minor in the ITAM department.

Application forms for minors and certificates can be obtained in the department office or on the ITAM Web site at www.cwu.edu / ~itam.

A minimum GPA of 2.3 in the minor and certificate courses must be achieved with a minimum grade of $C$ - in each course.

## Administrative Management Minor or Certificate


Required Courses
IT 248 Web Fundamentals . . . . . . . . . . . . . . . . 2
IT 260 Integrated IT Applications ......... . . 5
IT 301 IT Security, Privacy, and Ethics . . . . . 3
IT 351 Computer Networks . . . . . . . . . . . . . . 4
IT 374 Project Management . . . . . . . . . . . . . . 5
IT 468 Projects in Database . . . . . . . . . . . . . . . 4
Total Credits: 23

## Computer Applications Minor or Certificate

## Required Courses

IT 204 - Word Processing Applications . . . . . 3
IT 248 - Web Fundamentals . . . . . . . . . . . . . . 2
IT 258 - Spreadsheet Applications . . . . . . . . . 3
IT 268 - Database Applications . . . . . . . . . . . . 3
IT 288 - Business Presentation
Applications
. 2
IT 359 - Advanced Spreadsheet
Applications . . . . . . . . . . . . . . . . . . . . . . . . 3
IT 422 - Web Site Construction . . . . . . . . . . . . 4
Total Credits: 20

## Retail Management and Technology Minor or Certificate

## Required Courses

ADMG 201 - Introduction to Business ..... 3
RMT 330 - Principles of Retailing .......... . 4
RMT 335-Retail Information Technology . . 4
RMT 340 - Principles of Selling . . . . . . . . . . . 4
RMT 350 - Retailing and E-Commerce . . . . . 4
RMT 467 - Retail Management . . . . . . . . . . . . 4
Total Credits: 23

## Web Design and Management <br> Minor or Certificate

Required Courses
IT 248 - Web Fundamentals . . . . . . . . . . . . . . . 2
IT 268 - Database Applications . . . . . . . . . . . . 3
IT 301 - IT Security, Privacy, and Ethics . . . . . 3
IT 422 - Web Site Construction . . . . . . . . . . . . 4
IT 426 - Application of Web Languages . . . . . 4
IT 428 - Web Application . . . . . . . . . . . . . . . . . 4
IT 470 - Database and the Web . . . . . . . . . . . . 4
Total Credits: 24

## Bachelor of Applied Science

 Information Technology and Administrative ManagementThe bachelor of applied science in information technology and administrative management (BAS-ITAM) is designed for students with any technical school degree to gain a baccalaureate degree in a timely fashion. This degree requires significant study in general education at the upper-division level.

Students seeking the BAS-ITAM program must take a common set of core courses. Additionally, students entering the BASITAM program must choose a specialization in information technology (requires completion of a two-year IT technical degree program with a minimum of 40 approved courses within the IT technical degree) or administrative management.

## BAS-ITAM Program Admission <br> Requirements

Applicants for the BAS-ITAM must meet the following admission requirements before admittance to the program:

- Completion of an applied or technical degree from a community college or technical college in Washington with a minimum GPA of 2.3.
- Completion of 20 credits of the CWU "Basic Skills Requirements" (English, math, logic, and computing) or university equivalents or community/technical college equivalents. A foreign language is not required.
- Identification of a clearly articulated academic and / or career goal in pursuing the program and approved by the department chair or designee.

BAS-ITAM Graduation Requirements

- Minimum overall GPA of 2.3.
- Completion of CWU Breadth Requirements
- Completion of the BAS-ITAM core requirement courses and one of the BASITAM specialization list of courses with a minimum grade of $C$ - in each course

List of Specializations for BAS-ITAM program

Students seeking the BAS-ITAM program must take a common set of core courses. Additionally, students entering the BAS-ITAM program must choose a specialization in information technology (requires completion of a two-year IT technical degree program with a minimum of 40 approved courses with the IT technical degree) or administrative management.

## BAS-ITAM Core Requirements

ADMG 201* - Introduction to Business . . . . 3
ADMG 271* - Business Math Applications . 4
ADMG 302 - Financial Analysis for
Administrative and IT Support.

## ADMG 310 - Business Professional

Development.
ADMG 371 - Admini............................ 3
ADMG 372 - Leadership and Supervision . . 3
ADMG 374 - Project Management . . . . . . . . . 5
ADMG 385 - Business Communications
and Report Writing
. 5
RMT 366 - Customer Relationship
Management .4
*NOTE: May be transferred from community/technical college.

Total Core Requirements: 36

## BAS-ITAM Information Technology Specialization

The information technology specialization is designed to provide an opportunity for citizens who are information technology professionals with specific technical education to gain a baccalaureate degree in a timely fashion. This baccalaureate degree requires significant study in general education at the upper-division level. This specialization combines human-centered, management skills with IT technical skills-a requirement for those seeking management positions in the IT field.

## Required Courses

BAS-ITAM Core Requirements . . . . . . . . . . . 36
ADMG 376 - Project Management for IT . . . . 3
IT 301 - Information Technology Security,
Privacy and Ethics
.3
IT 461 - Systems Analysis . . . . . . . . . . . . . . . . 4
IT 462 - Systems Design . . . . . . . . . . . . . . . . . . 4
IT 486 - Critical Issues in Information
Technology
IT 490** - Internship . . . . . . . . . . . . . . . . . . 7-10
${ }^{* *}$ NOTE: Elective courses may be substituted for those who have more than 2,000 documented work experience in the information technology field.

Total Credits: 61-64

## BAS-ITAM Administrative Management Specialization

The administrative management specialization is designed to provide a baccalaureate degree for those with an applied degree from a Washington community college in a timely fashion. It provides administrative skills for those seeking management positions in any field.

## Required Courses

BAS-ITAM Core Requirements . . . . . . . . . . . . 36
ADMG 424 - ADMG Policy . . . . . . . . . . . . . . . 4
ADMG 471 - Contemporary Issues in
Administrative Management
ADMG 485 - Managerial Communications . 3
IT 260 - Integrated IT Application Projects . . 5 IT 359 - Advanced Spreadsheet Applications 3 ADMG 490** - Internship. . . . . . . . . . . . . . .7-10
**NOTE: Elective courses may be substituted for those who have more than 2,000
documented work experience in the administrative management field.

Total Credits: 62-65

## Administrative Management Courses

ADMG 201. Introduction to Business (3). Functions, practices, and organization of the business enterprise.
ADMG 271. Business Math Applications (4). Business and merchandising mathematics applications.
ADMG 302. Financial Analysis for Administrative and IT Support (5). This course addresses the financial functions necessary for an administrative and IT support manager to complete requested financial documents. Administrative and IT support staff must understand the basis of financial accounting analysis and concepts. Prerequisites: ADMG 271 and junior standing.
ADMG 310. Business Professional Development (3). Develops strategies to enhance interpersonal skills for career success. Topics include behavioral traits, values, ethics, trust, self-disclosure and essential functional skills such as time and stress management. Prerequisite: junior standing.
ADMG 355. Workplace Administration
(4). Knowledge and skills necessary for working efficiently and effectively in today's workplace. Topics include conference management, office health and safety, records management and scheduling. Formerly ADMG 255 . Students may not receive credit for both.
ADMG 371. Administrative Management (4). Administrative management techniques and practices.
ADMG 372. Leadership and Supervision
(3). Develop leadership techniques and behavioral traits to improve productivity of supervisors and leaders in the workplace.
ADMG 374. Project Management (5). Development of skills in the core project management areas (scope management, time management, cost management and quality management). Prerequisite: ADMG 385 ADMG 374 and IT 374 are equivalent courses. Students may not receive credit for both.
ADMG 376. Project Management and Information Technology (3). IT project management with a focus on facilitating project management areas (risk management, procurement management, HR management, communication management). Microsoft Project Management will be used. Prerequisite: IT / ADMG 374.
ADMG 385. Business Communications and Report Writing (5). Planning and writing skills for business letters, memoranda, employment, and reports. Prerequisite: ENG 102 or equivalent and junior standing.

ADMG 424. Administrative Management
Policy (4). Administrative management policies dealing with technology and innovation; the analysis, decision making, implementation, and control of these policies; the intent and core competencies of an organization; and the competitive integration of technology. Prerequisites: ADMG 385, ADMG 371, ADMG 372, and senior status.
ADMG 471. Contemporary Issues in Administrative Management (4). This capstone course uses current administrative management literature to focus on a variety of topics pertaining to current issues in administrative management. Prerequisites: ADMG 371, ADMG 273, ADMG 385, and senior status.
ADMG 485. Managerial Communications (3). Advanced written oral, and nonverbal business communications including proposals, crisis management, international communication, international / domestic etiquette, meeting management, conflict resolution, negotiation, and collaboration. Prerequisite: ADMG 385.
ADMG 490. Cooperative Education (1-
12). An individualized, contracted field experience with business, industry, government or social service agencies. This contractual arrangement involves a studentlearning plan, cooperating employer supervision and faculty coordination. Prerequisite: prior approval required. Grade will be $S$ or $U$.
ADMG 491. Workshop (1-6).
ADMG 493A. Undergraduate Research Practicum (1-3). Conduct research under direct supervision of a professor with specific learning agreement required. Prerequisite: permission of department chair. Grade will be S/U. ADMG/IT/ RMT 493A are equivalent courses. May be repeated for a total of 3 credits.
ADMG 493B. Undergraduate Assistant Practicum (1-3). Assist in monitoring, supervising, supporting, and tutoring instruction under direct supervision of a professor with specific learning agreements required. Prerequisite: permission of department chair. Grade will be $\mathrm{S} / \mathrm{U}$. ADMG/IT/RMT 493B are equivalent courses. May be repeated for a total of 3 credits.
ADMG 496. Individual Study (1-6).
Prerequisite: permission of instructor. ADMG 498. Special Topics (1-6). Prerequisite: permission of instructor.
ADMG 499. Seminar (1-5). Prerequisite: permission of instructor.

## Information Technology Courses

IT 101. Computer Applications (3). Basic skills in Windows, word processing, spreadsheets, databases, and presentations.
IT 204. Word Processing Applications
(3). Developing microcomputer wordprocessing skills for producing business documents. Not intended for ITAM majors. Prerequisite: IT 101 or CS 101.

IT 228. Introduction to Information
Technology (2). Exploring information technology principles, practices, and applications in contemporary society. Not intended for ITAM majors.
IT 248. Web Fundamentals (2). Development of Web pages and Internet skills for business, education, and training environments. Prerequisite: IT 101 or CS 101.

IT 258. Spreadsheet Applications (3).
Developing spreadsheets for business and workplace environments. Prerequisite: IT 101 or CS 101. Not intended for ITAM majors.
IT 260. Integrated Information Technology Application Projects (5). Developing word processing, spreadsheets, database, and presentation skills to create integrated projects for business and workplace environments. Prerequisites, IT 101 or CS 101.

IT 268. Database Applications (3). Develop databases for business and workplace environments. Prerequisite: IT 101 or CS 101. Not intended for ITAM majors.

IT 288. Business Presentation Applications
(2). Develop multimedia graphic presentations for business and workplace environments. Prerequisite: IT 101 or CS 101. Not intended for ITAM majors.

IT 301. Information Technology Security, Privacy, and Ethics (3). Examination of information technology security and privacy issues in the context of law and ethics. Prerequisite: junior standing.
IT 351. Computer Networks (4). Computer network communications including LAN and WAN Topologies, Protocols and Services, such as TCP/IP, and Ethernet, within the context of the OSI Reference Model. Prerequisite: junior standing.
IT 359. Advanced Spreadsheet Applications (3). Advanced spreadsheets for business applications such as design of multiple sheet workbooks and templates, advanced functions and formulas, enhanced formats, lists, and pivot tables. Prerequisite: IT 258 or IT 260.
IT 362. Wireless Communications (3). Broad introduction to wireless communications. Provides students with an exposure to a variety of technologies, standards, and concepts. Prerequisites: IT 351.
IT 374. Project Management (5). Development of skills in the core project management areas (scope management, time management, cost management, quality management). Prerequisite: ADMG 385. IT 374 and ADMG 374 are equivalent courses. Students may not receive credit for both.
IT 398. Special Topics (1-6).
IT 422. Web Site Construction (4). Design and implementation of the information technology infrastructure needed to operate a business Web site. Prerequisite: IT 248.
IT 426. Application of Web Languages (4).

Web languages for the non-computer science student. Prerequisite: IT 422.
IT 428. Web Applications (4). Web application design using Web software such as Dreamweaver, Fireworks, and Flash. Prerequisite: IT 422.
IT 456. Advanced Computer Network Management (4). Advanced knowledge and skills to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a computer network environment. Prerequisite: IT 453.
IT 459. Workstation Administration
(4). Implementation, administration, and troubleshooting workstations as a desktop operating system in any network environment. Prerequisite: IT 453.
IT 461. Systems Analysis (4). Feasibility studies of systems, cost analysis, and budgets, and tools of systems analysis. Prerequisite: senior standing.
IT 462. Systems Design (4). Analyze office information systems through selected analysis tools and procedures. Students will apply this knowledge by designing improved systems. Prerequisite IT 461.
IT 463. Computer Network Management (4). Develop and improve network administration and management skills within a network server environment. Prerequisite: IT 351.
IT 464. Directory Services (4). Students will plan, implement, and maintain directory service features including forests, sites, domains, and organizational units to meet network accessibility, performance, and security goals. Prerequisite: IT 463.
IT 465. Messaging Service (4). Provides students with the knowledge and skills needed to install and support a reliable, secure e-mail messaging infrastructure in a medium- to large-sized ( 250 to 5,000 users) corporate environment. Prerequisite: IT 463 or instructor permission.
IT 467. Network Security (4). Analysis and design of computer network security in the business environment. Prerequisite: IT 463.
IT 468. Projects in Database (4). Techniques in database design and management. Prerequisites: IT 268 or IT 260.
IT 469. Enterprise Database Systems: SQL (3). Students will learn to write SQL statements, basic database administration, and report writing skills. Prerequisites: IT 468.

IT 470. Database and the Web (4). Creating dynamic Web pages that interact with a database. Prerequisites: IT 422 and IT 468.
IT 486. Critical Issues in Information Technology (4). This seminar format and case study course is intended to expose pregraduation IT seniors to a variety of topics pertaining to the IT industry. Prerequisites: IT 301, ADMG 376, and senior status.
IT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or
social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U .
IT 491. Workshop (1-6). May be repeated.
IT 493A. Undergraduate Research Practicum (1-3). Conduct research under direct supervision of a professor with specific learning agreement required. Grade will be S/U. ADMG/IT / RMT 493A are equivalent courses. May be repeated for a total of 3 credits.
IT 493B. Undergraduate Assistant Practicum (1-3). Assist in monitoring, supervising, supporting, and tutoring instruction under direct supervision of a professor with specific learning agreements required. Prerequisite: permission of department chair. Grade will be S/U. ADMG/IT/ RMT 493B are equivalent courses. May be repeated for a total of 3 credits.
IT 496. Individual Study (1-6). Prerequisite: permission of the instructor. May be repeated.
IT 498. Special Topics (1-6). Prerequisite: permission of instructor.
IT 499. Seminar (1-5). Prerequisite: permission of instructor.

## Retail Management and Technology Courses

RMT 320. Principles of Merchandising Management for Micro Brewing (5). Emphasis on micro brewing merchandising and operations. Focus within channel on selling, distribution, promotion, policies, and regulations. Prerequisite: must be enrolled in the Craft Beer Trade Certificate program or by permission of the instructor.
RMT 330. Principles of Retailing (4). Introduction to retailing including retail stores, merchandising, operations, store location and layout, internal organization, buying, personnel management, inventory control, and sales promotion.
RMT 335. Retail Information Technology
(4). Use of contemporary technology in collecting, analyzing, and interpreting retail management data and writing and presenting retail management reports. Prerequisite: RMT 330.
RMT 340. Principles of Selling (4). Introduction to selling, its role in the economy, the sales process, types of selling, planning the sale, and sales organization.
RMT 350. Retailing and E-Commerce (4). Examines the progress and potential of the Internet for the marketing, selling, promoting, and distributing of retail goods and services. Prerequisite/Co-requisite: RMT 330 and access to the Internet.
RMT 366. Customer Relationship Management (4). Developing and maintaining strong customer relationships is paramount to a successful business.

Students learn to manage prospects and current customers by using information technology. Prerequisite: junior standing.
RMT 379. Internship Planning (1).
Preparation of an internship experience.
RMT 467. Retail Management (4). Retail store ownership and management, including startup, location, market analysis, customer service, organization, merchandise management, human resource management, sales promotion, and financial planning. Prerequisites: RMT 330, senior standing.
RMT 470. Critical Issues in Retailing (4). Capstone course in retailing that focuses on current retail management and technology literature and case studies. Prerequisites: RMT 330 and senior standing.
RMT 485. International Merchandising (4). Emphasis on international retailing and global trade. Focus on cross-cultural differences, work environments, policies, and regulations. Prerequisite: RMT 330. RMT 485 and FCSA 485 are equivalent courses. Students may not receive credit for both.
RMT 489. Retail Buying (4). Principles of buying and selling merchandise; analysis of consumer demand, stock inventories, and open-to-buy. Prerequisites RMT 330. RMT 489 and FCSA 489 are equivalent courses. Students may not receive credit for both.
RMT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U. Available summer only.
RMT 492. Practicum (5-15). Prerequisite: permission of department chair. Grading will be $S$ or U. Students may not receive credit for both.
RMT 493A. Undergraduate Research Practicum (1-3). Conduct research under direct supervision of a professor with specific learning agreement required. Prerequisite: permission of department chair. Grade will be S/U. ADMG/IT/ RMT 493A are equivalent courses. May be repeated for a total of 3 credits.
RMT 493B. Undergraduate Assistant Practicum (1-3). Assist in monitoring, supervising, supporting, and tutoring instruction under direct supervision of a professor with specific learning agreements required. Prerequisite: permission of department chair. Grade will be $\mathrm{S} / \mathrm{U}$. ADMG/IT/RMT 493B are equivalent courses. May be repeated for a total of 3 credits.
RMT 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
RMT 498. Special Topics (1-6).
RMT 499. Seminar (1-5). May be repeated.

## LANGUAGE, LITERACY, AND SPECIAL EDUCATION DEPARTMENT (LLSE)

Ellensburg
Black Hall, room 205

509-963-2049
www.cwu.edu / ~education
Faculty and Staff
Chairs
Carol Butterfield, PhD
Daniel Fennerty, EdD

## Professors

Carol Butterfield, PhD, elementary education, literacy, bilingual education, TESL Dan Fennerty, EdD, special education Gail Goss, EdD, literacy
Connie Lambert, PhD, special education
David Majsterek, EdD, special education, early childhood education
Alberta Thyfault, PhD, special education

## Associate Professors

Janet Finke, PhD, literacy
Craig Hughes, PhD, bilingual education, TESL
Terrance McCain, PhD, bilingual education,
TESL
Andrea C. Sledge, PhD, literacy

## Assistant Professors

Yukari Amos, PhD, bilingual education YiShan Lea, EdD, bilingual education, TESL Cristina Santamaria, PhD, special education Janet Spybrook, Ed D, special education Sharryn Walker, PhD, literacy
Sandra Wentworth, PhD, special education

## Lecturer

Judy Backlund, MA, Literacy, TESL
Staff
Nancy Schnebly

## Department Information

Major and / or minor programs in the Department of Language, Literacy, and Special Education include bilingual education/teaching English as a second language (TESL), literacy, and special education. The courses in these programs are designated by the course prefixes EDBL, EDLT, and EDSE, respectively.

In addition to major and / or minor in LLSE, students must complete the Professional Education Program. Students choosing to complete a major or minor without completing the Professional Education Program must have program approval at the time of declaration.

Students completing a special education major or minor must complete EDCS 424 if they are pursuing a secondary discipline-
specific teaching major (or EDLT 308 for those also seeking an elementary-specific teaching major) as part of the Professional Education Program. All students completing a secondary discipline-specific program must complete EDCS 424. All other education department majors or minors do not require the completion of this course. Also, at least 75 percent of the endorsable major or minor must be completed prior to EDCS 442, Student Teaching.

## Department Standards

All students completing an educational endorsement must maintain a 3.0 GPA or higher for the last 45 graded credits. Students must also earn a minimum grade of C in all required education courses.

## Special Education Majors

The special education majors offered are specifically designed to prepare teachers for meeting the diverse competencies required for teaching individuals with disabilities. Students electing special education teaching must follow one of the outlined programs. EDSE 302 must be taken prior to or concurrently with EDSE 311.

## Bachelor of Arts in Education Special Education (P-12)

This major satisfies the endorsement for special education. This major is for students planning to earn a teaching certificate with special education P-12 endorsement. This major requires a minor.

## Required Courses

EDSE 310 - Introduction to
$\qquad$
EDSE 311 - Foundations of
Special Education

EDSE 410 - Behavior Management for Students with Disabilities . . . . . . . . . . . . . . 3
EDSE 411 - Assessment of Students with Disabilities4

EDSE 422 - Teaching Strategies,
Curriculum, and Materials for Students with Disabilities .5
EDSE 423 - Instructional Strategies and Practices in Literacy and Mathematics for Students with High Incidence Disabilities 4
EDSE 426 - The Child with Language Disabilities .3 OR
EDEC 415 - Child Language
Acquisition (3)
EDSE 431 - Program Management for Students with Disabilities $\qquad$ .4
EDSE 432 - Career Education for Students with Disabilities .3
EDSE 433 - Pre-school for Students with Developmental Delays .3
EDSE 460 - Collaboration with Parents, Paraprofessionals, and Community Agencies .
EDSE 495 - Practicum . . . . . . . . . . . . . . . . . . . 16

## Bachelor of Arts in Education Special Education (P-12) <br> Broad Area

This major satisfies the endorsement for special education. This major is for students planning to earn a teaching certificate with special education P-12 endorsement. This major does not require a minor.

## Required Courses

EDEL 323 - Teaching Elementary School
Mathematics . . . . . . . . . . . . . . . . . . . . . . . .
EDLT 308 - Literacy I . . . . . . . . . . . . . . . . . . . . . . . 3
EDLT 309 - Literacy II . . . . . . . . . . . . . . . . . . . . . . 5
EDLT 420 - Teaching the Language Arts . . . . 4
EDSE 310 - Introduction to Special
Education . . . . . . . . . . . . . . . . .
EDSE 311 - Foundations of Special
Education.
. 4

DSE 410 - Behavior Management for Students with Disabilities
EDSE 411 - Assessment of Students with Disabilities . 4
EDSE 422 - Teaching Strategies,
Curriculum, and Materials for
Students with Disabilities .5
EDSE 423 - Instructional Strategies and Practices in Literacy and Mathematics for Students with High Incidence Disabilities 4
EDSE 426 - The Child with Language Disabilities OR
EDEC 415 - Child Language Acquisition (3)
EDSE 431 - Program Management for Students with Disabilities $\qquad$
EDSE 432 - Career Education for Students with Disabilities
EDSE 433 - Pre-school for Students with Developmental Delays 3 Paraprofessionals, and Community Agencies
EDSE 495 - Practicum . . . . . . . . . . . . . . . . . . . 16
Department-approved Electives ........... 3
Total Credits: 73

## Bilingual Education/ <br> Teaching English as a Second <br> Language Minor

This minor satisfies the endorsements for bilingual education and English as a second language. This minor serves the goals and requirements of students wishing to teach in classrooms characterized by cultural and linguistic diversity. The bilingual / TESL minor leads to K-12 endorsements in bilingual education and English as a second language. Note the foreign language requirement below.

## Required Courses

EDBL 312 - Foundations in Bilingual Education
EDBL 318 - Culture and Curriculum . . . . . . . 3
EDBL 430 - Sheltering Instruction for
Linguistically Diverse Students
EDBL 433 - Educational Linguistics ....... 3

EDBL 435 - Bilingual Education in the Content Areas
EDBL 438 - Teaching English as a Second Language
EDBL 439 - Assessment of Linguistically Diverse Students .
EDBL 440 - Development of Literacy with Linguistically Diverse Students
EDBL 492 - Practicum .....................
Program-advisor-approved upper-division foreign language electives . . . . . . . . . . . . .3-4

Total Credits: 30-31

## Literacy Minor

The literacy minor, with campus and field experiences, is designed to prepare reading teachers and strengthen background preparation of elementary teachers. *EDLT 308 and EDLT 309 are prerequisites for admittance to the minor. The minor should be commenced in the junior year.
*EDLT 493 requires permission of the department (designated as the instructor of EDLT 493). Permission will not be granted until six required courses in the literacy minor, excluding prerequisite courses, are completed or will be completed the quarter prior to enrollment.

## Required Courses

*EDLT 308 - Literacy I. . . . . . . . . . . . . . . . . . . . . 3
*EDLT 309 - Literacy II . . . . . . . . . . . . . . . . . . . 5
EDLT 410 - Teaching Word Recognition
Skills
. . 3
EDLT 411 - Teaching Comprehension ...... 3
EDLT 412 - Assessment of Literacy Skills . . . 3
EDLT 413 - Methods and Materials for
Literacy Instruction . . . . . . . . . . . . . . . . . . . 3
EDLT 418 - Literacy and Linguistics ........ 3 OR
EDBL 433 - Educational Linguistics (3)
EDCS 424 - Reading in the Content Fields . . 3
EDBL 440 - Development of Literacy with Linguistically Diverse Students ........ . . 3
EDLT 493 - Literacy Practicum (3-5) . . . . . . . 5
(Requires department permission. A minimum of six required reading minor courses, excluding prerequisites, must be completed for permission.)

Elective Courses
. 3
(Select at least one course.)
EDLT 414 - Teaching Literacy in a Multi- Cultural Setting (3)
EDLT 415 - Literacy for the Gifted (3)
EDLT 417 - Early Literacy (3)
EDLT 419 - Storytelling Techniques (3)
Total Credits: 37

## Special Education Minor

The special education programs offered are specifically designed to prepare teachers for meeting the diverse tasks required in teaching individuals with disabilities. The minor may serve as a "pre-endorsement" plan for those wishing to add the special education
endorsement at a later date. See a special education advisor for your individualized pre-endorsement plan.

## Required Courses

EDSE 310 - Introduction to Special
Education
EDSE 311 - Foundations of Special
Education.
. 1
EDSE 410 - Behavior Management for
Students with Disabilities . . . . . . . . .
EDSE 411 - Assessment of Students with
Disabilities
. 3

EDSE 422 - Teaching Strategies,
Curriculum, and Materials for
Students with Disabilities
. .5
EDSE 423 - Instructional Practices and Strategies in Literacy and Mathematics for Students with High Incidence Disabilities 4
EDSE 431 - Program Management for
Students with Disabilities . . . . . . . . . . . . . 4
EDSE 432 - Career Education for Students with Disabilities
.. . 3
EDSE 433 - Pre-school for Students with Developmental Delays3

EDSE 460 - Collaboration with Parents, Paraprofessionals, and Community Agencies

Total Credits: 35

## Endorsements for <br> Special Education

Students who hold a current teaching certificate and are endorsed in other areas may earn endorsement in special education. See a special education advisor for more information.

## Teaching English as a Second Language (TESL) Minor

This minor satisfies the endorsement for English as a second language. This minor prepares students to teach in classrooms where second language students are enrolled. While the bilingual / TESL minor leads to a bilingual education endorsement, the TESL minor leads to an English as a second language endorsement. Students must complete, or have already completed, one year of study in a foreign or second language or the equivalent (at either the high school or university level).

## Required Courses

EDBL 312 - Foundations in Bilingual Education
EDBL 318 - Culture and Curriculum . . . . . . . 3
EDBL 430 - Sheltering Instruction for
Linguistically Diverse Students
EDBL 433 - Educational Linguistics ....... 3
EDBL 438 - Teaching English as a Second Language 3

EDBL 439 - Assessment of Linguistically
Diverse Students . . 3
EDBL 440 - Development of Literacy with
Linguistically Diverse Students

EDBL 492 - Practicum . . . . . . . . . . . . . . . . . . . 3
TESL minor approved electives . . . . . . . . . . . 3
Total Credits: 27

## Bilingual Education Courses

EDBL 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDBL 298. Special Topics (1-6).
EDBL 299. Seminar (1-5). May be repeated.
EDBL 312. Foundations in Bilingual
Education (3). Education of students whose primary language is other than English. Research on linguistic, social, and community issues pertaining to bilingualism and bilingual education.
EDBL 318. Culture and Curriculum (3). The importance of culture-based curriculum to children, families, and communities, and its creation, use, and evaluation. ANTH 130 recommended.
EDBL 396. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDBL 398. Special Topics (1-6).
EDBL 401. Principles and Practices for Educating Linguistically Diverse Students
(3). Required coursework that provides the fundamental background in language and learning theories needed to educate linguistically diverse students. The basics of sheltered instruction are introduced. Prerequisite: admission to the Teacher Preparation program.
EDBL 430. Sheltering Instruction for Linguistically Diverse Students (3). This course provides teacher candidates the basic competencies and skills needed to make appropriate modifications and accommodations for linguistically diverse students in content area instruction.
EDBL 432. Second Language Acquisition and Related Methodologies (3). This course examines different theories of secondlanguage acquisition and their relationships with the development of the methodologies for teaching a second language.
EDBL 433. Educational Linguistics (3).
Phonology, syntax, and semantics applicable to speech and learning situations in the school. Not recommended for undergraduates with no teaching experience.
EDBL 435. Bilingual Education in the Content Areas (3). Designed to develop teacher competency related to the bilingual instruction of coursework in language arts, social studies, science, and mathematics in both English and Spanish. The use of ESL in these content areas is emphasized. Taught in English and Spanish. Prerequisite: Spanish language fluency or permission of instructor.
EDBL 438. Teaching English as a Second Language (3). Prepares teachers in the development and practice of research-based
methods and techniques used to assist K-12 English Language Learners in acquiring academic English.
EDBL 439. Assessment of Linguistically Diverse Students (3). This course prepares students to use effective assessment programs and techniques with linguistically diverse students in order to improve identification, reclassification, and teaching of such students.
EDBL 440. Development of Literacy with Linguistically Diverse Students (3). Reading instruction for K-12 students who are speakers of a language other than English. Linguistic theory and information for developing and implementing strategies and techniques for literacy acquisition in English. Prerequisite: EDLT 308 or permission of instructor.
EDBL 492. Practicum (1-15). This course will provide students with experience working in bilingual education and / or English as a Second Language settings. Prerequisite: permission from the Teacher Preparation Program. Grade will be $S$ or U. Students may accumulate no more than 15 hours of practicum credit.
EDBL 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDBL 498. Special Topics (1-6).
EDBL 499. Seminar (1-5). May be repeated.

## Literacy Education Courses

EDLT 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDLT 298. Special Topics (1-6).
EDLT 299. Seminar (1-5). May be repeated.
EDLT 308. Literacy I (3). First of two courses designed to prepare prospective teachers to teach literacy in elementary school classrooms. Deals with processes and products of the literacy act; methods and materials, assessment procedures, and instruments.
EDLT 309. Literacy II (5). Content and methodology of readiness, vocabulary development, phonic and structural analysis, comprehension, and study skills. Prerequisite: EDLT 308.
EDLT 396. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDLT 398. Special Topics (1-6).
EDLT 410. Teaching Word Recognition Skills (3). Methods for teaching word recognition skills will be developed. Decoding as an aid to comprehension, including phonetic analysis, context clues, structural analysis, and sight vocabulary. Prerequisites: EDLT 308 and EDLT 309.
EDLT 411. Teaching Comprehension (3). Comprehension strategies and techniques; techniques for vocabulary development. Prerequisites: EDLT 308 and EDLT 309.
EDLT 412. Assessment of Literacy Skills and Processes (3). Assessment instruments,
procedures, and interpretive skills for determining student reading levels and needs. Emphasizes the selection, administration, and interpretation of tests. Prerequisites: EDLT 308 and EDLT 309.
EDLT 413. Methods and Materials for
Literacy Instruction (3). Strategies for classroom management, implementation of learning theories. Prerequisites: EDLT 308 and EDLT 309.
EDLT 414. Teaching Literacy in a Multicultural Setting (3). Strategies for teaching reading and developing language skills in a multi-cultural setting. Prerequisites: EDLT 308 and EDLT 309.
EDLT 415. Literacy for the Gifted
(3). Techniques for identifying and challenging the superior reader and writer. Prerequisites: EDLT 308 and EDLT 309.
EDLT 417. Early Literacy (3). Aspects of early literacy acquisition and instruction including language development, phonemic awareness, writing, play, and socio-cultural contexts are emphasized. Prerequisites: EDLT 308 and EDLT 309.
EDLT 418. Literacy and Linguistics (3).
This course is intended to provide literacy teachers with a general introduction to the major fields of linguistics, including phonology and phonetics, morphology, syntax, semantics, discourse analysis, language acquisition, and dialects. Prerequisites: EDLT 308 and EDLT 309.
EDLT 419. Storytelling Techniques (3). Storytelling in the integrated curriculum. Students become familiar with a variety of stories and demonstrate the ability to tell stories.
EDLT 420. Teaching the Language Arts (4).
Primarily for prospective elementary school teachers. Listening, writing, speaking, spelling, and handwriting development. Emphasizes curriculum, methods, materials, and research. Experienced teachers see EDEL 531.
EDLT 421. Teaching Children's Literature (3).
The types of literature suited to children in grades one through six; includes reading and evaluation of material from early folklore to present-day books for children.
EDLT 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
EDLT 493. Literacy Practicum (5). Practical experience working with children in classroom settings. Prerequisites: EDLT 308 and 309. Grade will be $S$ or $U$.
EDLT 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDLT 498. Special Topics (1-6).
EDLT 499. Seminar (1-5). May be repeated.

## Special Education Courses

EDSE 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDSE 302. Introduction to Students with Exceptionalities (4). Designed to introduce effective teaching strategies and strategies for adapting standard instruction to meet the needs of a range of students found in the typical classroom. This course provides information about students considered disabled as well as gifted, and students with multicultural heritages. Prerequisites: prior or concurrent enrollment in CWU's EDF 301 or 301A and completed application to Teacher Preparation Program.
EDSE 310. Introduction to Special Education
(4). Designed to introduce prospective teachers to the legal requirements of special education including eligibility, programming, and instruction. Skills necessary for collaborative relationships in the multidisciplinary team process will also be emphasized.
EDSE 311. Foundations of Special Education (1). Designed to provide prospective teachers with the necessary foundations for successful completion of the special education course of study including end-of-program assessment, undergraduate research, and written and oral communication skills. This course should be taken at the beginning of the special education course of study. Pre/Co requisite, EDSE 310.
EDSE 396. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDSE 398. Special Topics (1-6).
EDSE 410. Behavior Management for Students with Disabilities (3). Fundamentals of behavior change related to the education of students with disabilities. Monitoring individual student progress and utilizing data collected for program instructional change.
EDSE 411. Assessment of Students with
Disabilities (4). Selecting, administering, scoring, and interpreting formal assessment tools. Designing and using informal testing techniques.
EDSE 422. Teaching Strategies, Curriculum, and Materials for Students with Disabilities (5). Individual, small, and large group teaching strategies essential to individualized education programs, and selection, evaluation, and adaptation of commercially available materials, including computer applications. Prerequisites: EDSE 310, 311, EDSE 410, and EDSE 411 or permission of instructor.
EDSE 423. Instructional Practices and Strategies in Literacy and Math for Students with High-incidence Disabilities (4). Specially designed instructional strategies and programming considerations for students with high-incidence special needs in reading, written expression, and
mathematics. Prerequisites: EDSE 310, EDSE 311, EDSE 410, EDSE 411, EDLT 308, and EDEL 323. Co-requisite, ESDE 422 or permission of the instructor. Students must be admitted to the Teacher Preparation Program.
EDSE 426. The Child with Language Disabilities (3). An exploration of the child with language disabilities (age birth to six) from the perspective of normal language development, assessment strategies, and remedial techniques. Recommended for teachers of children with mild and severe disabilities. Prerequisite: a course in child or human development or permission of instructor.
EDSE 427. American Sign Language I
(3). Introduces educational use of ASL including conversationally relevant signs, finger-spelling, numbers, grammatical principles, and features of American Sign Language. Not accepted as general education credit.
EDSE 428. American Sign Language II (3). Educational use of ASL structure emphasized as well as both expressive and receptive skills in finger-spelling and sign emphasized. Not accepted as general education credit. Prerequisite: EDSE 427 or permission of instructor.
EDSE 431. Program Management for Students with Disabilities (4). Designed to introduce prospective teachers to the legal requirements of special education including eligibility, programming, and instruction. Also emphasizing skills necessary for collaborative relationships in the team process. Prerequisites: EDSE 311, 310, 410, 411 , and 422, or permission of instructor.
EDSE 432. Career Education for Students with Disabilities (3). Career awareness, prevocational, and vocational education. Prerequisites: EDSE 310, 311, 410, 411, and 422, or permission of instructor.
EDSE 433. Pre-school for Students with Developmental Delays (3). An overview of services for children with disabilities, aged birth to six, including legislation, risk factors, educational development, alternative delivery systems, and intervention approaches and environments. Prerequisites: EDSE 302 or EDSE 310 or permission of instructor.
EDSE 460. Collaboration with Parents, Paraprofessionals, and Community Agencies (4). Designed to introduce prospective teachers to the legal requirements of special education including eligibility, programming, and instruction. Also emphasizing skills necessary for collaborative relationships in the team process.
EDSE 489. Research and Inquiry (2). Course designed to enhance understanding of research and inquiry skills related to disability topics and issues for prospective special educators and educators. Prerequisites: EDSE 310, EDSE 311, EDSE 410, EDSE 411, and EDSE 422, or permission
of the instructor. Student must be admitted to the Teacher Preparation Program.
EDSE 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
EDSE 491. Workshop (1-6).
EDSE 495. Practicum (5-16). Practical experience with children having learning, behavioral, or physical disabilities; using behavioral management techniques in an effort to bring the child up to maximum potential as determined by his/her flexibility, sociality, and capacity. Prerequisites: completion of all special education major course requirements and full admission to the Teacher Preparation Program. Grade will be $S$ or U.
EDSE 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDSE 498. Special Topics (1-6).
EDSE 499. Seminar (1-5). May be repeated. Prerequisite: EDSE 303.

## MILITARY SCIENCE DEPARTMENT

## (Army Reserve Officers' <br> Training Corps-ROTC)

Ellensburg
Peterson Hall, room 202H
509-963-3518
Fax 509-963-3588
www.cwu.edu / ~roo
Please see the Military Science Web site for additional information on education and career opportunities.

## Faculty and Staff

Chair
Lt. Col. Gregory P. Solem, Quartermaster, MS

## Professor

Lt. Col. Gregory P. Solem, Quartermaster, Command General Staff College, MS, logistics

## Assistant Professors

Maj. Paul T. Sellars, special forces, BA, history
Maj. Walter S. Botwinski, military police, MA, business and organizational security management
Maj. George L. Glass, II, field artillery, BS, interdisciplinary studies

## Instructors

Master Sgt. Christopher M. Ward, infantry
Sgt. 1st Class David Richards, air defense artillery

## Staff

Muffie Corbin, program coordinator David M. Mirro, human resource technician Kevin I. Bannister, supply technician

## Department Information

The Department of Military Science's courses are designed to prepare scholars, athletes, and junior leaders for commissioning in the U.S. Army. Students who complete the Military Science program and meet commissioning requirements will be eligible for a commission as a second lieutenant in the U.S. Army, Army Reserve, or Army National Guard. The on-campus instructional program is designed to fit into the regular academic schedule of the university and is taught by Army professors and instructors.

The academic program consists of military science, leadership labs, and off-campus summer training. Academic studies include courses in basic military tactics, principles of leadership, officership, communication, personnel and logistics management, staff management procedures, physical conditioning, land navigation, and military law. Various training activities are scheduled each quarter to further familiarize the student with the ROTC program.

Textbooks and uniform items are furnished through the Department of Military Science. The MSL 100 and MSL 200 classes are open to any student to explore their military interests and are non-contractual. Advancement to MSL 300 and MSL 400 courses to complete a minor in military science is by permission only.

Upon completion of the military science core (OPTION 1, 2 , or 3; see below) requirements, leadership development and assessment course, and receipt of a bachelor's degree, students seeking an officer commission are able to select fulltime employment (active Army) or part-time employment through the Army National Guard or the Army Reserve.

Additional information concerning the Military Science program may be obtained by writing: Central Washington University, Military Science, Peterson Hall, 400 E. University Way, Ellensburg, Washington 98926-7569, stopping by the military science department in Peterson Hall, room 202, calling 509-963-3518, or by visiting the military science Web site at www.cwu. edu/~roo/.

## POST BACHELOR'S DEGREE

FELLOWSHIPS: Graduating seniors may compete for several fully-funded Army graduate fellowships.

TRANSFER STUDENTS: Students transferring from other institutions, including community colleges considering entrance in the Military Science program must make an appointment for a departmental interview for candidacy and scholarships.

GRADUATE STUDENTS: Graduate students interested in obtaining a commission as a second lieutenant should contact the Military Science Department in Peterson Hall for academic planning and application.

VETERANS: Veterans are encouraged to contact one of the military science academic advisors for information and outline of benefits available while participating in the ROTC program.

SCHOLARSHIPS: ROTC scholarships pay tuition and required fees. They're awarded on merit-academic achievements, extracurricular activities, and personal interviews. Four-, three- and two-year scholarships are available each academic year to qualified students. Applications can be obtained from the military science department.

STIPENDS: All fully contracted cadets receive a stipend ( $\$ 300$ freshman, $\$ 350$ sophomore, $\$ 450$ junior, $\$ 500$ senior) for each academic month plus an allowance for books and other educational items. Non-scholarship students can receive the stipend as a contracted cadet during their last two years.

## SPECIAL TRAINING OPPORTUNITIES:

Summer training opportunities are through the Department of the Army Schools. The available schools include: airborne (parachute) training, air assault training, Northern Warfare School, and special forces. Additionally, Cadet Troop Leadership Training (CTLT) is also available to all cadets who have completed the military science minor core, been accepted in the military science minor, completed the MSL 301, 302, and 303 courses of study, and the leader development and assessment course. CTLT provides leadership experience in an active Army unit for two weeks prior to returning for the senior year of college study. CTLT is available in the U.S., Europe, and the Pacific Rim. Specialized training opportunities are by permission only.
Prerequisites for Advancement to the Military Science Minor

1. Admission into the MSL minor will be based upon an overall grade point average (GPA) of 2.5.
2. The department chair may admit a limited number of students with GPAs under 2.5.
3. Students seeking the military science minor must complete all application requirements prior to declaring military science as a minor.
4. Complete the core requirements with a GPA of 3.0 or higher.
5. The Military Science Department reserves the right to modify these requirements in special cases.

## Military Science Minor Core

## Option $1^{*}$

## Required Courses

MSL 101 - Foundations of Officership ..... 1
MSL 102 - Basic Leadership ................ 2
MSL 103 - Advanced Leadership . . . . . . . . . 2
MSL 201 - Individual Leadership Studies .. 2
MSL 202 - Leadership and Teamwork . . . . . . 2
MSL 211 - Land Navigation ................ 2
Military Science Core Total Credits: 11
Option 2
Required Courses
Select 3 credits from the list of approved
electives .
.3
**MSL 292 - Leader's Training Course,
Internship ............................... 8
**This course can be taken as non-credit
Option 3*
Verification of completion of prior military service initial entry program. This option is by permission only. See department for further information
*No military obligation is incurred under Option 1 or Option 3.

## Military Science Minor

Participation in this minor is contingent upon completion of the ROTC core (Option 1,2 , or 3) listed above and acceptance as a contracted student in the advanced course in the Army ROTC program. Application may be made at the Department of Military Science in Peterson Hall.

## Required Courses

HIST 314 - Military History of the

$$
\text { United States ............................ } 5
$$

MSL 301 - Leadership and Problem Solving 3
MSL 302 - Leadership and Ethics ........... 3
MSL 303 - Leadership and Small Group
Tactics ..................................... 3
MSL 401 - Leadership and Management ... 4
MSL 402 - Officership ...................... 4
MSL 403 - Officership II . . . . . . . . . . . . . . . . . . 2
Select from the following credits .........2-5
BSED 102 - Computer Keyboarding Skill Building (2)
IT 101 - Computer Applications (3)
CS, Any Course (4-5)
Total Credits: 26-29

## Military Science Courses

MSL 101. Foundations of Officership
(1). Introduces students to issues and competencies that are central to a commissioned officer's responsibilities. Establishes framework for understanding officership, leadership, Army values, and life skills, such as physical fitness and time management. Open to all students.
MSL 102. Basic Leadership (2). Establishes foundation of basic fundamentals such as problem solving, communications, briefings, effective writing, goal setting,
techniques for improving listening and speaking skills, and an introduction to counseling. Open to all students.
MSL 103. Advanced Leadership (2). Studies in problem solving, communications, effective writing, goal setting, techniques of listening, advanced speaking skills, and professional counseling. Open to all students.
MSL 201. Individual Leadership Studies (2). Students identify successful leadership characteristics through personal experience and observation of others during handson team building exercises. Explores persuasion techniques and the continuum of guidance to determine leadership styles. Open to all students.
MSL 202. Leadership and Teamwork (2). Examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Open to all students.
MSL 211. Land Navigation (2). Principles of land navigation and orienteering with practical field applications. Prerequisite: permission of instructor.
MSL 212. Leadership Laboratory (1). Practical experience in leadership and basic military skills. Prerequisites: permission of instructor. May be repeated.
MSL 292. Leader's Training Course, Internship (8). Basic military skills and leadership techniques taught at Ft. Knox, Kentucky, during the summer. Qualifies the student for enrollment in the ROTC advanced course. Training emphasizes leadership development and can be taken in place of the basic course. Students receive pay, food, lodging and travel expenses to and from Ft. Knox. By permission only.
MSL 293. Ranger Challenge Training (2). Prepares students to compete as a team member on the CWU Ranger Challenge team. Must be in good physical condition. Must be medically cleared for participation in collegiate-level sports. Recommend concurrent enrollment in PEF 293. May be repeated for up to 8 credits.
MSL 296. Individual Studies in Military Science (1-15).
MSL 298. Special Topics (1-6).
MSL 301. Leadership and Problem Solving
(3). Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem solving techniques. Students receive direct feedback on leadership abilities. Required for Commissioning. Prerequisite: basic course or equivalent or permission of department chair.
MSL 301LAB. Military Science and Tactics III Laboratory (1). Requires concurrent enrollment in MSL 301. Practical experience and application in first aid, weapons,
communications, and advanced land navigation.
MSL 302. Leadership and Ethics (3). Students learn small-group leadership methods with emphasis on problem solving and dealing with situational change required for Commissioning. Prerequisite: MSL 301 or permission of department chair.
MSL 302LAB. Military Science and Tactics III Laboratory (1). Practical experience and application in small-unit leadership techniques and small-unit tactics. Requires concurrent enrollment in MSL 302.
MSL 303. Leadership and Small Group Tactics (3). Students learn and demonstrate small unit tactic and land navigation methods while using advanced problemsolving techniques. Emphasis on decisionmaking and communication skills. Required for Commissioning. Prerequisite: MSL 302 or permission of department chair.
MSL 303LAB. Military Science and Tactics III Laboratory (1). Practical experience integration of small unit tactics, land navigation, techniques of fire support, and military skills. Requires concurrent enrollment in MSL 303.
MSL 314. Military History of the United States (5). A comprehensive and systematic survey and analysis of the American Military experience from colonial times through the Vietnam War. MSL 314 and HIST 314 are equivalent courses. Students may not receive credit for both.
MSL 392. Leader Development and Assessment Course Preparation (2). Practical exercise in small-unit leadership and tactics. Prepares the student for leader development and assessment course. Prerequisite: MSL 302 or permission of the department chair.
MSL 398. Special Topics (1-6).
MSL 401. Leadership and Management (4). Develops student proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management, methods of effective staff collaboration, and developmental counseling techniques. Required for Commissioning. Prerequisite: MSL 303.
MSL 402. Officership (4). Study includes case analysis of military culture and practical exercises on establishing a command climate. Students must complete a quarterlong Senior Leadership Project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. Required for Commissioning. Prerequisite: MSL 401.
MSL 403. Officership II (2). Emphasis on analyzing case and situational studies, which cover contemporary leadership problems. Required for Commissioning. Prerequisite: MSL 402.
MSL 492. Leader Development and Assessment Course Internship (8-15). Practical exercise in small-unit leadership and tactics. Five-week camp at Ft. Lewis, Washington. Required for Commissioning. Prerequisites: MSL 301, 302, 303.

NUTRITION,
EXERCISE, AND
HEALTH SCIENCES DEPARTMENT

Ellensburg
Dorothy Purser Hall., room 101
509-963-1912
Fax: 509-963-1848
www.cwu.edu / ~nehs /
See Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Vincent M. Nethery, PhD

## Professors

Ethan R. Bergman, PhD, RD, dietetics, sports nutrition
Leonardo J. D'Acquisto, EdD, sport physiology, kinesiology, human anatomy
David L. Gee, PhD, nutrition \& metabolism, nutrition and chronic diseases, sports nutrition
Robert McGowan, PhD, clinical and exercisesport psychology
Vincent M. Nethery, PhD, clinical physiology, sport physiology, environmental physiology, human anatomy

## Associate Professors

Timothy R. Burnham, PhD, clinical physiology, sport physiology, human anatomy
Susan Hawk, PhD, RD, dietetics, clinical nutrition
Keith A. Monosky, PhD (c), MPM, EMT-P, emergency medical services, emergency services management, health policy
Charilaos Papadopoulos, PhD , clinical physiology, sport physiology, physical activity interventions

## Assistant Professors

Susan Adams, MS, RD, food service management
Virginia Bennett, PhD, RD, cultural nutrition, developmental nutrition
Linda Cashman, MS, RD, dietetics
Kelly Pritchett, PhD, RD, sports nutrition, clinical nutrition, eating disorders
Robert Pritchett, MS, sport physiology, environmental physiology

## Lecturers

Bryan Contreras, MS, sport physiology, kinesiology, biomechanics
James Pierce, EMT-P, emergency medical services

## Staff

Rhonda Busch-Gehlen, assistant to the chair
Lucinda Engel, instructional classroom support technician - food science

Edith Fowler, office manager
Lori Hauser, Office assistant, EMS-
Paramedicine

## Department Information

The Department of Nutrition, Exercise, and Health Sciences prepares students in a variety of professions that focus on the physical and functional abilities of humans. Human functioning is the overriding theme of all curricula offerings. In addition to didactic aspects, many classes provide experiential learning through structured laboratories, practicums, and internships. All programs provide opportunities to interact with faculty and to participate in both undergraduate and graduate research.

## NEHS offers the following undergraduate

 degrees:Bachelor of Science: Exercise Science (EXSC)
Bachelor of Science: EXSC - Clinical
Physiology Specialization
Bachelor of Science: FSN - Dietetics Specialization
Bachelor of Science: FSN - Nutrition
Science Specialization
Bachelor of Science: FSN - Foods and
Nutrition Specialization
Bachelor of Applied Science: Food Service Management
Bachelor of Science: Paramedics

## NEHS offers the following supporting

 minors:Exercise Science
Athletic Training
Nutrition
Food Service Management

## NEHS offers the following certificate programs:

Paramedic
Emergency Medical Technician
Dietetic Internship (Accredited by the American Dietetic Association - Commission on Accreditation for Dietetic Education)

NEHS offers the following graduate degrees - (For details: See Graduate Studies and

## Research section:

Master of Science: Exercise Science
Master of Science: Nutrition

## Admission Requirements

To be admitted to a major or minor, all students must:

1. Meet with an advisor in the specific program of interest. Because of the variety of options and the pre-admission requirements of programs, it is advisable to meet with an advisor early to plan the program schedule and to facilitate timely graduation.
2. Complete specific pre-admission requirements (see individual programs).
3. Complete and file a major application with the department office, signed by the academic advisor and the program director. Application forms can be obtained from the advisor or the department office.
4. Complete and file with the department office, a program of study that lists the required and elective courses necessary for program completion. Course of study forms can be obtained from the academic advisor.

## Student Scholarly Activities:

The department is student oriented and all programs provide a wide range of laboratory and field experiences as part of specific degree requirements and degree options. Students who engage early in optional learning experiences gain a better understanding of their profession, are more competitive in the job market, and increase their chances for graduate school admission.

## Student Organizations:

Exercise Science Club: All EXSC students are required to join the EXSC Club. This student-run organization meets regularly to discuss academic planning and career opportunities, performs service activities, and plans recreational outings.
Nutrition Science Club: The NSC provides opportunities for students to use their knowledge and skills in performing service activities, learn about career opportunities, discuss academic planning, and engage in recreational activities.

EMT Club: The EMT Club is a student organization that is purposed to provide basic life support services to on-campus activities as a means of first-line-response. The EMT Club is comprised of current students that are certified emergency medical technicians. The EMT Club is supervised by a faculty member of the Paramedic program and is provided the necessary emergency medical equipment and continuing education to provide essential emergency medical services.

## Fees:

Additional fees are assessed for many of the department's laboratory and field experience courses. These fees are used to partially support materials purchased and transportation costs.

## Graduation Requirements

1. Satisfactory completion of all requirements of the university and of the specific degree program of study.
2. Application for the bachelor's degree must be filed by the second Friday of the quarter preceding the quarter in which the degree is to be received. Instructions and deadlines are available through Registrar Services.

## Exercise Science

Exercise Science is comprised of two separate programs: the Clinical Physiology program and the General program. Each program has unique pre-admission requirements and curriculum. Please read the information carefully to decide which program best suits your professional goals.

## Program Director

Timothy Burnham, PhD

## Faculty

Leonardo D'Acquisto, EdD
Timothy Burnham PhD
Vincent Nethery, PhD
Charilaos Papadopoulos, PhD
Robert Pritchett, PhD
Kelly Pritchett, PhD
Robert McGowan, PhD
Bryan Contreras, MS
Exercise science graduates use knowledge and skills to assess and improve physical status and functional abilities in both healthy and diseased populations. They enter a world where knowledge and skills related to the role of physical activity in health and disease is of ever increasing prophylactic and prescriptive importance.

## Admission Requirements

Admission to Exercise Science is selective. For details on eligibility for admission, please see individual programs below, paying special attention to pre-admission requirements.

Students must be admitted to the exercise science major prior to enrolling in 300 and above level EXSC classes and a "C" or better grade is required for all courses in major and minor programs.

## Bachelor of Science <br> Exercise Science (General)

The bachelor of science - exercise science general program prepares student to enter career areas where exercise is an integral part of general health and human performance. Such areas include corporate health-wellness, private health-fitness clubs, diverse non-profit fitness-wellness agencies such as YMCA's, and athletic performance including strength and conditioning.

## Required Pre-admission Courses <br> EMS 245 - First Aid . . . . . . . . . . . . . . . . . . . . . 3

EXSC 250 - Anatomical Kinesiology . . . . . . . 5
EXSC 254 - Foundations of Fitness . . . . . . . . 3

## Additional Required Courses

IT 101 - Computer Applications . . . . . . . . . . . . 3
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
COM 345 - Business and Professional
Speaking . . . . . . . . . . . . . . . . . . . . . . . . 4
HED 324 - Noninfectious Disease .......... . 4
EXSC 318 - Aerobic Fitness . . . . . . . . . . . . . . . 3
EXSC 348 - Prevention and Treatment of Athletic Injuries .4

EXSC 351 - Scientific Foundations of Health and Fitness
EXSC 360 - Scientific Principles of Strength
Training
EXSC 446 - Sports Nutrition and Weight Control
EXSC 450 - Physiology of Exercise
EXSC 455 - Fitness Assessment and Exercise Prescription $\qquad$
EXSC 456 - Administration of Programs for Special Populations
EXSC 457 - Exercise Adherence Strategies . . 3
EXSC 461 - Current Issues in Fitness and
Exercise Science
EXSC 464 - Management of Fitness Facilities
and Programs
. 4
EXSC 490 - Cooperative Education . . . . .10-12
EXSC 495A - Practicum: Fitness
Centers/Clubs .2

OR
EXSC 495B - Practicum: Clinical (2) OR
EXSC 495C - Practicum: Management (2)
EXSC 495D. - Practicum: Laboratory
Assessment
Total Credits: 83-85

## Exercise Science - Clinical Physiology Specialization

The clinical physiology specialization prepares student to enter clinical areas of health and allied health care where exercise is an integral part of prophylactic and rehabilitative programs. Such areas include cardiopulmonary rehabilitation, specialized metabolic disorder clinics, athletic training/ sports medicine, and as exercise physiology assistants to physical therapists. This specialization also prepares students for eligibility to enter graduate school or specialized post-graduate certification programs in several areas including physical and occupational therapy, physical therapy assistant, physician assistant, athletic training, and master/doctoral level studies in integrated human physiology, and exercise science. Additional courses may be required to satisfy all pre-requisites for admission eligibility to some graduate and professional programs.
Pre-admission Requirements (" $\mathrm{C}+$ " or better required for all pre-admission courses):
*MATH 130 - Finite Mathematics ......... . 5
*NUTR 245 - Basic Nutrition . . . . . . . . . . . . . 5
*BIOL 201 - Human Physiology . . . . . . . . . . . 5
*CHEM 111, 111LAB - Introduction to Chemistry
.5
EMS 245 - First Aid . . . . . . . . . . . . . . . . . . . . . 3
EXSC 250 - Anatomical Kinesiology ....... . 5
Pre-admission Total Credits: 28
*These courses may also be used to satisfy general education requirements.

## Required Core

EXSC 348 - Prevention and Treatment of
Athletic Injuries

EXSC 351 - Scientific Foundations . 5
EXSC 446 - Sports Nutrition and Weight Control . . 3
EXSC 450 - Physiology of Exercise . . . . . . . . 5
EXSC 455 - Fitness Assessment and Exercise Prescription
. 5
EXSC 456 - Administration of Exercise
Programs for Special Populations . . . . . . 4
EXSC 495B - Practicum: Clinical . . . . . . . . . . 2
EXSC 490 - Internship . . . . . . . . . . . . . . . . . . 12
Core Total Credits: 40
Specialization Courses
EXSC 438 - Therapeutic Exercise . . . . . . . . . . 3
EXSC 452 - Advanced Athletic Training .... 3
EMS 443 - Myocardial Disease and Basic Electrocardiography
.3
BIOL 355, 356 - Human Anatomy / Physiology 10
CHEM 112, 112LAB, 113, 113LAB -
Introduction to Organic Chemistry and
Biochemistry
10
PSY 362 - Introductory Statistics . . . . . . . . . . 4
Electives, choose from the following .... 15
NUTR 341 - Nutrition I (3)
NUTR 344 - Medical Nutrition Therapy I (3)
NUTR 443 - Nutrition II (5)
EXSC 457 - Exercise Adherence Strategy (3)
NUTR 444 - Medical Nutrition
Therapy II (3)
PSY 449 - Abnormal Psychology (4)
PSY 478 - Physiological Psychology (4)

## Specialization Total: 48 <br> Total Credits: 88

## Exercise Science Minor

This minor is designed primarily for those individuals who major in disciplines such as nutrition, biology, physical education, public health, and business. This minor may also be of interest for students in pre-professional programs including premedicine, pre-chiropractic, pre-occupational therapy, and pre-physical therapy. Courses in this minor may also be used to satisfy requirements in other major programs. The exercise minor courses are:

## Required Courses

EXSC 250 - Anatomical Kinesiology . . . . . . . 5
EXSC 254 - Foundations of Fitness ......... 3
EXSC 351 - Scientific Foundations of
Health and Fitness
EXSC 450 - Physiology of Exercise . . ...... 5
EXSC 455 - Fitness Assessment and
Exercise Prescription . 5
Select from one of the following. . . . . . . . 3-4
EXSC 360 - Scientific Principles of Strength Training (4)
EXSC 456 - Administration of Programs for Special Populations (4)
EXSC 457 - Exercise Adherence Strategies (4)

Total Credits: 26-27

## Athletic Training Minor

This minor provides students with exposure to the knowledge and skills needed to become an athletic trainer, however, it does not qualify students to sit for board certification. Students interested in becoming NATA certified should contact the National Athletic Trainer's Association for more information. This minor is designed primarily for those individuals who major in disciplines such as nutrition, biology, physical and health education, and public health. This minor may also be of interest for students in pre-professional programs including premedicine, pre-chiropractic, pre-occupational therapy, and pre-physical therapy. Courses in this minor may also be used to satisfy requirements in other major programs. The athletic training minor courses are:

## Required Courses

HED 101 - Health Essentials . . . . . . . . . . . . . . 4
EMS 245 - First Aid . . . . . . . . . . . . . . . . . . . . . 3
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
EXSC 250 - Anatomical Kinesiology . . . . . . . 5
EXSC 348 - Prevention and Treatment of
Athletic Injuries ......................... . . . 4
EXSC 351 - Scientific Foundations of
Health and Fitness . . . . . . . . . . . . . . . . . . . . 5
EXSC 438 - Therapeutic Exercise . . . . . . . . . . 3
EXSC 450 - Physiology of Exercise . . . . . . . 5
EXSC 452 - Advanced Athletic Training . . . . 3
Total Credits: 37

## Food Science and Nutrition

Program Director
David Gee, PhD
Faculty
Susan Adams, MS, RD
Virginia Bennett, PhD, RD
Ethan Bergman, PhD, RD
Linda Cashman, MS, RD
David Gee, PhD
Susan Hawk, PhD, RD
Kelly Pritchett, PhD, RD

## Bachelor of Science <br> Food Science and Nutrition Major with Specialization

The bachelor of science in food science and nutrition prepares students for employment or advanced study in one of several professions in the broad area of foods and nutrition. To complete degree requirements, students must complete the required core courses listed below. Students must also complete courses listed in their chosen specialization (foods and nutrition, dietetics, nutrition science).

## Admission Requirements

Students wishing to attain full admission to the BS in food science and nutrition major must meet the following requirements:

- Successful completion of NUTR 245, Basic Nutrition, NUTR 140, Introduction to Foods and NUTR 140LAB, Introduction to

Foods Laboratory with a grade of B (3.0) or better.

- Students must receive a grade of C (2.0) or better in all of the other major courses.

In addition to the requirements listed above, students wishing to enter any of the food science and nutrition specializations must successfully complete CHEM 111, Introduction to Chemistry, CHEM 111LAB, Chemistry Laboratory or CHEM 181, General Chemistry I and CHEM 181LAB, General Chemistry Laboratory I, and MATH 100C, Intermediate Algebra, or their equivalents, before being admitted to the major. Students must consult with a major advisor for approval of the program specialization.

Students are highly encouraged to complete at least five credits of NUTR 490, Cooperative Education.

## Food Science and Nutrition Core <br> Requirements

NUTR 140 - Introduction to Foods . . . . . . . . 2
NUTR 140LAB - Introduction to Foods Laboratory2
NUTR 245 - Basic Nutrition .....  5
NUTR 344 - Medical Nutrition Therapy I . ..... 3
NUTR 345 - Developmental Nutrition ..... 3
NUTR 446 - Sports Nutrition andWeight Control3
NUTR 447 - Nutrition and Society ..... 3
EDCS 312 - Educational Statistics ..... 4
ORPSY 362 - Introductory Statistics (4)CHEM 111/111LAB - Introduction toChemistry (5)5
OR
CHEM 181 / 181LAB - GeneralChemistry I (5)
Food Science and Nutrition
Core Total Credits: 30

## Select One of the Following Specializations:

## Foods and Nutrition Specialization

The foods and nutrition specialization prepares students for a wide variety of careers in the food and nutrition industry including food processing companies (quality assurance and product development positions), food distributors, food brokerage companies, restaurant and institutional food service, pharmaceutical sales, and nutrition positions not requiring being a registered dietitian. It is highly recommended that students discuss possible minors with their academic advisor that would complement this specialization and enhance employment opportunities. Possible minors include food service management, exercise science, community health education, business, and administrative management. Students interested in applying to nursing programs following the completion of this degree are recommended to take BIOL 355 and BIOL 356, Human Anatomy and Physiology, instead of BIOL 201, Human Physiology and BIOL 220,

Introductory Cell Biology, plus BIOL 322, Introductory Microbiology.

## Required Courses

FSN Core Requirements . . . . . . . . . . . . . . . . 30
NUTR 340 - Management of Food Resources . 2
NUTR 340LAB - Management of Food Resources Laboratory 1
NUTR 341 - Nutrition I .....  3NUTR 342 - Quantity Food Productionand Service4
NUTR 342LAB - Quantity Food
Production and Service Laboratory ..... 1
Professionalism .....  1
Education .....  3
NUTR 348 - Nutrition Interview ..... 1
NUTR 440 - Experimental Foods ..... 3
Laboratory .....  2
NUTR 441 - Nutrition and Aging ..... 3
NUTR 448 - Food Service Systems Management ..... 4
CHEM 112 / 112LAB - Introduction to Organic Chemistry .....  5
CHEM 113/113LAB - Introduction to Biochemistry .....  5
BIOL 201 - Human Physiology . .....  5

## Dietetics Specialization

The dietetics specialization, plus three additional courses (PSY 101, ECON 101, and ANTH 130 or 357 ) fulfills the requirements of the American Dietetic Association for a Didactic Program in Dietetics (DPD). The DPD is currently accredited by the American Dietetic Association Commission on Accreditation for Dietetics Education (CADE, 120 South Riverside Plaza Ste. 2000, Chicago, IL 60606-6995, 312-899-0040 ext 5400), a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. Completion of this program qualifies the student to apply for admission to a CADE-accredited Supervised Practice Experience also known as a Dietetic Internship. Following this the student is eligible to sit for the registration examination. Passing the registration exam qualifies the graduate to become a registered dietitian (RD).

## Required Courses

Prior to being admitted into the dietetics specialization, students shall apply to the BS in food science and nutrition major with a specialization in foods and nutrition and must then complete the following courses:
FSN Core Requirements . . . . . . . . . . . . . . . 30
NUTR 340 - Management of Food Resources
NUTR 340LAB - Management of Food Resources Laboratory1

NUTR 342 - Quality Food Production and Service.

NUTR 342LAB - Quality Food Production and Service Laboratory. . . . . . . . . . . . . . . . . 1
NUTR 343 - Foods and Nutrition
Professionalism $\qquad$
CHEM 112/112LAB - Introduction to
Organic Chemistry $\qquad$
CHEM 113/LAB - Introduction to
Biochemistry
BIOL 201 - Human Physiology . . . . . . . . . . . . 5
Total pre-specialization major requirements: 54

In addition to successfully completing all of the pre-specialization courses, applicants to this specialization must have an overall GPA of at least 3.0 at the time of application and a GPA in all of the pre-major classes of 3.0. Students planning on entering the dietetics specialization are encouraged to declare their major in the BS food science and nutrition with a foods and nutrition specialization as early in their studies as possible so that they may be assigned a major advisor and receive proper advising in this field.
BIOL 220 - Introductory Cell Biology. . . . . . . 5
BIOL 322 - Introductory Microbiology. . . . . . 5 OR
BIOL 323 - Microbiology (5)
ENG 310 - Technical Writing . . . . . . . . . . . . . .
MGT 380 - Organizational Management. . . . 5
NUTR 341 - Nutrition I. . . . . . . . . . . . . . . . . . . 3
NUTR 347 - Introduction to Nutrition
Education
.3
NUTR 348 - Nutrition Interview. . . . . . . . . . . . . 1
NUTR 440 - Experimental Foods . . . . . . . . . . 3
NUTR 440LAB - Experimental Foods
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 441 - Nutrition and Aging . . . . . . . . . . 3
NUTR 442 - Nutrition Assessment
Laboratory...... . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 443 - Nutrition II . . . . . . . . . . . . . . . . . . . 5
NUTR 444 - Medial Nutrition Therapy II . . . 3
NUTR 448 - Food Service Systems
Management
Total Credits: 102

## Additional Information

Students wishing to apply for admission into a CADE-accredited dietetic internship must compete the above major requirements plus the following three courses: ANTH 130, Introduction to Cultural Anthropology (5) OR ANTH 357, Medical Anthropology: CrossCultural Perspectives on Health and Healing (4), and ECON 101, Economic Issues (5), and PSY 101, General Psychology (5). These courses may also meet breadth requirements at Central Washington University.

The requirement for CHEM 111, 111LAB, Introduction to Chemistry and Laboratory, may be met by satisfactorily completing CHEM 181, 181LAB and 182, 182LAB, General Chemistry and Laboratory. The requirement for CHEM 112, 112LAB, Introduction to Organic Chemistry and Laboratory, may be met by satisfactorily completing CHEM 361, 361LAB, 362, Organic Chemistry and Laboratory. The requirement for CHEM 113, 113LAB, Introduction to Biochemistry,
may be met by satisfactorily completing CHEM 431, 431LAB and 432, Biochemistry and Laboratory. The requirement for BIOL 201, Human Physiology, may be met by satisfactorily completing BIOL 355, 356, Human Anatomy and Physiology. Students interested in applying to nursing programs following the completion of this degree are recommended to take BIOL 355 and BIOL 356 instead of BIOL 201.

## Nutrition Science Specialization

The nutrition science specialization provides the training necessary to pursue advanced study in nutrition leading towards a career in nutrition research. This option also can be used for those students seeking admission to medical, dental, optometric, nursing, and other health-related programs and schools. In addition to the courses listed, a year of introductory physics is also required for admission to most medical schools. Pre-medical students should also maintain contact with the premedical advisor for current information. MATH 153, Pre-Calculus Mathematics I, or an equivalent course needs to be completed before a student is admitted to this specialization.

## Required Courses

FSN Core Requirements. . . . . . . . . . . . . . . . . 30
BIOL 181 - General Biology I . . . . . . . . . . . . . . 5
BIOL 182 - General Biology II . . . . . . . . . . . . . . 5
BIOL 183 - General Biology III . . . . . . . . . . . . . 5
BIOL 220 - Introductory Cell Biology . . . . . . 5
BIOL 355 - Human Anatomy and
Physiology
.5
BIOL 356 - Human Anatomy and
Physiology .
CHEM 182/182LAB - General Chemistry II
CHEM 183/183LAB - General Chemistry III 5
CHEM 361/361LAB - Organic Chemistry I . 5
CHEM 362 - Organic Chemistry II ........ . . 3
CHEM 431/LAB - Biochemistry I . . . . . . . . . 5
CHEM 432 - Biochemistry II . . . . . . . . . . . . . . 3
NUTR 341 - Nutrition I . . . . . . . . . . . . . . . . . . . 3
NUTR 440/LAB - Experimental Foods . . . . . 5
NUTR 442 - Nutrition Assessment
Laboratory
. 2
NUTR 443 - Nutrition II . . . . . . . . . . . . . . . . . 5
NUTR 444 - Medical Nutrition Therapy II . . 3
Total Credits: 104

## Bachelor of Applied Science Food Service Management

The BAS food service management degree is designed for those who are interested in obtaining the skills for managing a food service located in establishments such as a restaurant, hotel, university dining, hospital, public school district, or resort facilities.

## Admission Requirements

Prior to being admitted, the student entering the BAS - food service management program will have:

- Taken at least 20 credits of general education basic skills courses, including IT 101 or equivalent course
- Taken course equivalencies to NUTR 245, NUTR 140, 140Lab, and ECON 201
Prior to graduation students must have completed a minimum of 1,000 hours of documented work experience in a food service setting which includes the approximately 500 hours completed in the NUTR 490 Cooperative Education experience. The documented work experience must be approved by the food service management advisor and the department chair.


## Required Core Courses

HRM 381 - Management of Human
Resources
MGT 380 - Organizational Management ... 5
ECON 201 - Principles of Economics Micro . 5
NUTR 140 - Introduction to Foods . . . . . . . . 2
NUTR 140LAB - Introduction to Foods
Laboratory
. . 2
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
NUTR 342 - Quantity Food Production and Service
NUTR 342LAB - Quantity Food Production and Service Laboratory

1
NUTR 448 - Food Service Systems Management
MKT 360 - Principles of Marketing . . . . . . . . 5
ADMG 385 - Business Communications and Report Writing
NUTR 490 - Cooperative Education. . . . . . . 12
Department-approved upper-division Electives .6
Choose from the following:
NUTR 340 - Management of Food Resources (2)
NUTR 340LAB - Management of Food Resources Laboratory (1)
NUTR 345 - Developmental Nutrition (3)
NUTR 405 - Hospitality Catering (3)
NUTR 441 - Nutrition and Aging (3)
NUTR 446 - Sports Nutrition
and Weight Control (3)
NUTR 447 - Nutrition and Society (3)
RMT 330 - Principles of Retailing (4)
RMT 340 - Principles of Selling (4)
GWS 302 - Fundamentals of Viticulture and Enology (4)
GWS 303 - Major Wine Regions of the World (4)
GWS 304 - Wine Marketing and Branding (4)
GWS 406 - Professional Wine Analysis (3)
ADMG 310 - Business Professional
Development (3)
ADMG 372 - Leadership and
Supervision (3)
Total Credits: 61

## Nutrition Minor

This program is designed primarily for those individuals in other majors who desire a more in-depth study of nutrition. This program is intended for students in majors
such as exercise science, family studies, physical and health education, and public health. This minor may also be of interest for students in pre-professional programs including pre-medicine, pre-dentistry, preveterinary, and pre-physical therapy. Courses in this minor may also be used to satisfy requirements in other major programs.

Students wishing to attain full admission to the minor must meet the following requirements: Successful completion of NUTR 245 - Basic Nutrition, NUT 140 - Introduction to Foods, and NUTR 140LAB- Introduction to Foods Laboratory with a grade of B (3.0) or better. Students must receive a grade of $C$ (2.0) or better in all other minor courses.

## Required Courses

NUTR 140 - Introduction to Foods . . . . . . . . 2
NUTR 140LAB - Introduction to Foods
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
NUTR 340 - Management of Food
Resources . . . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 340LAB - Management of Food
Resources Laboratory . . . . . . . . . . . . . . . . . 1
NUTR 345 - Developmental Nutrition ..... 3
NUTR 446 - Sports Nutrition and Weight
Control . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Department-approved Electives . . . . . . . . . . 4
NUTR 348 - Nutrition Interview (1)
NUTR 346 - Theory and Treatment of
Eating Disorders (3)
NUTR 441 - Nutrition and Aging (3)
NUTR 447 - Nutrition and Society (3)
OR
NUTR 490 - Cooperative Education (5)
Total Credits: 22-23

## Food Service Management Minor

This minor is designed primarily
for students earning degrees in business administration or in tourism management that will allow them better access to careers in food service management. Courses in this 26to 27-credit minor may also be used to satisfy requirements in other major programs. This minor may not be used for students earning a BS degree in food science and nutrition or a BAS in food service management.

## Required Courses

NUTR 140 - Introduction to Foods . . . . . . . . . 2
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
NUTR 340 - Management of Food
Resources . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
NUTR 342 - Quantity Food Production and
Service
NUTR 448 - Food Service Systems
Management
NUTR 490 - Cooperative Education ....... . 5
Department-approved Electives . . . . . . . . 4-5
Approved Electives
MGT 380 - Organizational
Management (5)
NUTR 140LAB - Introduction to Foods Laboratory (2)
NUTR 340LAB - Management of Food
Resources Laboratory (1)

## NUTR 342LAB - Quantity Food

 Production and Service Laboratory (1)NUTR 490 - Cooperative Field Experience (5)

Total Credits: 26-27

## Bachelor of Science <br> Paramedicine Major

## Program Director

Keith A. Monosky, PhD(c), MPM. EMT-P

## Medical Program Director

Jackson Horsley, MD

## Faculty

Robert Carlson, BS, EMT-P
Tamara Downs, BS, EMT-P
Keith A. Monosky, PhD(c), MPM, EMT-P
James Pierce, EMT-P
The paramedicine major is designed for students who plan to become a certified prehospital professional in emergency medical services. The paramedicine major provides the graduate with the requisite skill sets for entry-level competence in advanced life support emergency medical services, as well as superior skills in advanced life support and leadership abilities in emergency medical services.

The deliver format includes classroom lectures, group discussions, laboratory skills training, hospital clinical experience with observations and practice, field internships, educational internships, administrative internships, prehospital research, and simulated senario-based exercises of complex patient condition which willfully prepare the student for occupations in advanced emergency medical services. This nationallyaccredited program meets all of the national curriculum and Washington State standards.

In addition to general admissions, all applicants must meet specific entrance criteria (including a current EMT certification) and be approved by the paramedic selection committee before being admitted into the program. Admission to CWU does not assure entry into the paramedicine major.

Completion of the major listed below and other degree requirements leads to the bachelor of science in paramedicine and eligibility to take the National Registry EMTs examination for paramedic certification. For students not seeking a degree, a certification option is available.

## Required Courses for Entry:

EXSC 250 - Anatomical Kinesiology. . . . . . . . 5
EXSC 351 - Scientific Foundations of
Health and Fitness. 5
EMS 440 - Medical Mathematics and Terminology

Required Courses in the Concentration:
EMS 335 - Paramedicine I .4

EMS 335LAB - Advanced Clinical
Practice I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
EMS 336 - Paramedicine II. . . . . . . . . . . . . . . . . 4
EMS 336LAB - Advanced Clinical Practice II 2
EMS 337 - Paramedicine III ..... 3
EMS 337LAB - Advanced Clinical
Practice III. .....  2
EMS 350 - Paramedicine Instructiona Methodologies. .....  2
EMS 430 - Problem-based Learning I .....  4
EMS 431 - Problem-based Learning II .....  4
EMS 441 - General Pharmacology for Paramedics ..... 3
EMS 443 - Myocardial Disease and BasicElectrocardiography4
EMS 444-12-Lead Electrocardiography .....  4
EMS 451 - Advanced Trauma Care. .....  3
EMS 455 - Introduction to \{athophysiEMS 459 - Emergencies in Pediatric/Geriatric Care. 3
EMS 460 - Research in EMS I. .....  3
EMS 461 - Research in EMS II .....  3
EMS 465 - Educational Methodologies in EMS. .....  3
EMS 470 - Current Topics in Emergency Medicine ..... 3
EMS 475 - EMS Response to Terrorism .....  3
EMS 480 - Financial Analysis ofEMS Systems3
EMS 481 - Quality Improvement and Administration of EMS. .....  3
EMS 482 - System Analysis of EMS .....  4
EMS 485 - Strategic Planning for EMS .....  3
EMS 488 - Health Policy in EMS ..... 3
EMS 489 - Leadership in EMS .....  3
EMS 493A - Paramedicine Internship I . ..... 3
EMS 493B - Paramedicine Internship II. . . . . . 4
EMS 493C - Paramedicine Internship III . .....  5
Optional Course in the Concentration
EMS 450 - Human Anatomy-Cadaver.

Total Credits: 105-106

## Paramedic Courses

EMS 245. First Aid (3). American Red Cross First Aid course for which standard certificate may be granted.
EMS 319. Emergency Medical Technician (EMT) (8). EMT Basic is the first certification level for students pursuing careers in the EMS field. After completing the EMS 319 course, students are eligible to become state or nationally certified to care for the sick and injured in the pre-hospital setting. Prerequisite: EMS 245.
EMS 335. Paramedicine I (4). This course provides the foundational knowledge in paramedicine education in areas of preparatory elements of paramedicine, advanced airway management, history taking, and physical examination, communications, documentation, ethics, and more. Prerequisite: admission to the major or permission of the instructor. Corequisite, EMS 335LAB.
EMS 335LAB. Advanced Clinical Practice I (2). This course provides practical lab
instruction in paramedicine, including advanced airway procedures, patient assessment, history-taking, physical examination, medication administration, IV therapy, and other related emergency procedures. Prerequisites: admission to the major or permission of the instructor. Corequisite, EMS 335. Grade will be S or U.
EMS 336. Paramedicine II (4). This course provides the foundational knowledge in paramedic education in areas of emergency obstetrics and gynecology, pulmonology, neurology, endocrinology, allergies, environmental, infectious diseases, psychiatric, toxicological, and more. Prerequisites: EMS 335/335LAB and admission to the paramedicine major. Corequisite, EMS 336LAB.
EMS 336LAB. Advanced Clinical Practice II (2). Accompanying laboratory to Paramedicine II providing intensive training in obstetrical emergencies, pulmonary assessment and treatment, management of cardiovascular emergencies, cardiac arrest team management, and leadership development. Prerequisite: admission to the major or by permission of the instructor. Co-requisite, EMS 336. Grade will be S or U .
EMS 337. Paramedicine III (3). This course provides the foundational knowledge in paramedic education in areas of assessmentbased management, neonatology, geriatrics, pediatrics, abuse and assault, rural EMS, and more. Prerequisites: EMS 336 and admission to the major or by permission of the instructor. Co-requisite, EMS 337LAB.
EMS 337LAB. Advanced Clinical Practice
III (2). Accompanies EMS 337. Lecture providing practical skill education in a laboratory setting in the therapeutic paramedical interventions of pediatrics, geriatrics, and advanced medical emergencies. Co-requisite, EMS 337. Prerequisite: permission of the instructor. Grade will be $S$ or $U$.
EMS 345. Instructor's First Aid (3). American Red Cross First Aid course for instructor's certificate. Meets requirements for ski patrol. Prerequisite: EMS 245 or instructor's permission.
EMS 350. Paramedicine Instructional Methodologies (2). This course provides instruction and opportunities to learn and apply techniques and methods of instruction in principles of EMS. Students will provide practical skill instruction to EMT student under the supervision of the program faculty. Prerequisite: admission to the major or by permission of the instructor. Grade will be S or U.
EMS 398. Special Topics (1-6).
EMS 430. Problem-based Learning I
(4). This course introduces case-based presentation of pathology, symptomatology, presentation, and treatment of clinical scenarios through life-span development, group discussion, and research.
Prerequisite: admission to the major or permission of the instructor. Co-requisite, EMS 455.

EMS 431. Problem-based Learning II (4). This course continues case-based presentation of pathology, symptomatology, presentation, and treatment of clinical scenarios through life-span development through group discussion and research. Prerequisite: EMS 430, and admission to the major, or by permission of the instructor.
EMS 440. Medical Mathematics and Terminology (2). This course provides instruction in various methods of medical drug calculations and dosing of medications commonly utilized in emergency settings, as well as an introduction to medical terminology. Prerequisites: admission to the paramedical major or permission of the instructor.
EMS 441. General Pharmacology for Paramedics (3). Mechanism of action, indications and contraindications of drugs, their side effects, dosage, and administration. Prerequisite: EMS 440.
EMS 443. Myocardial Disease and Basic Electrocardiography (4). This course provides instruction in the basic elements of bipolar limb-lead electrocardiography, beginning with a review of cardiovascular A\&P, a brief discussion of cardiac pathologies, and focuses on EKG interpretation and dysrhythmia recognition. Prerequisite: admission to the major or by permission of the instructor.
EMS 444. Twelve-lead Electrocardiography (4). This provides instruction in the advanced elements of 12-lead EKG analysis. It begins with a review of the essentials of EKG interpretation and introduces ACLS concepts following with a comprehensive approach to 12-lead EKG analysis. Prerequisite: EMS 443, or equivalent, and admission to the major, or permission of the instructor.
EMS 450. Human Anatomy Cadaver Lab (1). This course provides instruction in the human anatomy and physiology with practical lab examination, exploration, and limited dissection of the human body. Prerequisite: permission of the instructor. Two hours laboratory per week.
EMS 451. Advanced Trauma Care (3). This course provides instruction in the advanced elements of trauma care, including trauma triage, fluid resuscitation, trauma arrest management, multi-system management, and trauma of the head, neck, thorax, abdomen, and extremity. Prerequisite: admission to the major or by permission of the instructor.
EMS 455. Introduction to Pathology (3).
This course introduces fundamental pathologies common to all age groups. It establishes concepts and foundational basis of disease from the cellular perspective to the fully developed organism. Prerequisite: admission to the major or by permission of the instructor.
EMS 459. Emergencies in Pediatric/Geriatric Care (3). Emergency training in assessing, treating, and transporting pediatric/ geriatric patients.

EMS 460. Research in EMS I (3). This course introduces research design and methodologies common to medicine and paramedicine. It establishes the foundation for EMS research projects and possible publication. Prerequisite: admission to the major or by permission of the instructor.
EMS 461. Research in EMS II (3). This course continues education in research design and methodologies common to medicine and paramedicine. It provides the student the opportunity to complete EMS research projects and possible publication. Prerequisites: EMS 460, and admission to the major, or by permission of the instructor.
EMS 465. Educational Methodologies in EMS (3). This course introduces common educational methodologies applied in EMS education with focuses on didactic, psychomotor, and affective education domains. Additional content include curricula development, evaluation methods, test construction, and critical phychometic parameters. Prerequisite: admission to the major or by permission of the instructor.
EMS 470. Current Topics in Emergency Medicine (3). This course instructs students how to conduct medical literature searches and to critically review peer-reviewed articles and surveys the contemporary literature for relevant concepts and issues germane to EMS. Prerequisite: admission to the major or by permission of the instructor.
EMS 475. EMS Response to Terrorism (3). This course examines contemporary thought on the philosophical basis and motivation for terrorism and discusses currently prevalent issues, principles of mitigation for EMS providers, and strategies to prevent terroristic threats. Prerequisite: admission to the major or by permission of the instructor.
EMS 480. Financial Analysis of EMS Systems (3). This course introduces basic financial analytical processes as they apply to EMS, with emphasis on interpreting financial statements, assessing financial burden, cost projection, cost-benefit analysis, and formulae for evaluating financial performance. Prerequisite: admission to the major or by permission of the instructor.
EMS 481. Quality Improvement and Administration of EMS (3). This course introduces elemental concepts to continuous quality improvement with application to EMS systems. It also introduces how CQI data can be used to inform EMS administration. General principles of management will be reviewed. Prerequisites: admission to the major or by permission of the instructor.
EMS 482. Systems Analysis of EMS (4). This course integrates previously-learned concepts into a systematic approach of EMS system problem-identification, prioritization, and solutions proposals. It incorporates research design, financial analysis, and policy analysis into an integrated approach. Prerequisites: EMS

460, EMS 480, and EMS 481. EMS 488 in recommended. Student must also be admitted to the major or by permission of the instructor.
EMS 485. Strategic Planning for EMS
(3). This course introduces foundational concepts of strategic planning into EMS development. It enables the student to apply strategic principles of managemnt to real-life EMS systems. Prerequisite: admission to the major or by permission of the instructor.
EMS 488. Health Policy in EMS (3). This course introduces policy development and agenda-setting at the state and national levels, It provides basic instruction in policy analysis and surveys current health policies that may impact EMS. Prerequisite: admission to the major or by permission of the instructor.
EMS 489. Leadership in EMS (3). This course examines various leadership styles, assesses student aptitude for leadership style, and develops a foundational structure to develop superior leadership abilities in EMS systems. Prerequisite: admittance to the major or by permission of the instructor.
EMS 493A. Paramedicine Internship I (3).
This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. Prerequisite: admission to the major or permission of the instructor. Graded S or U.
EMS 493B. Paramedicine Internship II (4). This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. Co-requisite, EMS 493A.
EMS 493C. Paramedicine Internship III
(5). This course provides clinical and field instruction in principles of paramedicine under the supervision of clinical and field preceptors. Co-requisite, EMS 493B.

## Exercise Science Courses

EXSC 250. Anatomical Kinesiology (5). Study of skeletal and muscular systems, the fundamentals of biomechanics, and their applications to human movement, skill development, and skill performance.
EXSC 254. Foundations of Fitness (3). Overview of the Fitness Industry, components of fitness and strategies to improve the health and well-being of the individual.
EXSC 318. Aerobic Fitness (3). This class provides the Fitness and Sports Management major with an in-depth exploration of various cardiovascular exercise activities and equipment. Prerequisites: EXSC 250.
EXSC 348. Prevention and Treatment of Athletic Injuries (4). Prevention and treatment of injuries and rehabilitation of injured athletes. Prerequisite: EXSC 250. Three hours lecture and two hours laboratory per week.

EXSC 351. Scientific Foundations of Health and Fitness (5). Examination of the digestive, respiratory, urinary, circulatory, nervous, endocrine, and reproductive systems of the human body. Four hours lecture and two hours laboratory per week.
EXSC 360. Scientific Principles of Strength Training (4). This course addresses the scientific and theoretical bases of program design in resistance training. Prerequisites: EXSC 250 or permission.
EXSC 438. Therapeutic Exercise (3). This course covers the understanding, design, and development of rehabilitation exercises for acute, chronic, and post operative injuries. Prerequisites: EXSC 250 and EXSC 348.

EXSC 446. Sports Nutrition and Weight Control (3). Study of interrelationship of factors required for successful weight control; modification of diet, activity, and behavior. Role of dietary factors in health and body function. Prerequisite: NUTR 245 or permission. EXSC 446 and NUTR 446 are equivalent courses. Students may not receive credit for both.
EXSC 450. Physiology of Exercise (5). Acute and chronic responses of the metabolic, muscular, cardiovascular, pulmonary, endocrine, and thermoregulatory systems to physical work. Prerequisite: EXSC 351 or permission. Four hours lecture, two hours laboratory per week.
EXSC 452. Advanced Athletic Training (3). A detailed examination of injuries, therapeutic modalities, and rehabilitation in athletic training. Prerequisite: EXSC 348.
EXSC 455. Fitness Assessment and Exercise Prescription (5). Concepts and principles of appraising level of fitness, evaluating the results and designing physical fitness/ exercise programs. Prerequisite: EXSC 450. Three hours lecture and four hours laboratory.
EXSC 456. Administration of Programs for Special Populations (4). Philosophy, principles, policies, and procedures of fitness administration to special populations. Prerequisite: EXSC 455. Three hours lecture and one hour case study analysis lab per week.
EXSC 457. Exercise Adherence Strategies (3). Review of psychological factors involved in the exercise treatment of normal and special populations.
EXSC 461. Current Issues in Fitness and Exercise Science (2). This seminar course discusses current trends and issues in the fitness and exercise science world.
EXSC 463. Pediatric Issues in Exercise Science (5). Essential principles of growth, development, and exercise science and the application of these principles to children and youth. Prerequisites: EXSC 250 and EXSC 351. Four hours of lecture and two hours of laboratory per week.
EXSC 464. Management of Fitness Facilities and Programs (4). This course covers conventional business management principles and operational guidelines to
the unconventional business of health and fitness facilities.
EXSC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, medical, or social service agencies. This contractual arrangement involves a studentlearning plan, cooperating employer supervision, and faculty coordination. Prerequisites: satisfactory completion of all courses in the major and a minimum GPA of 2.7 in the major. Prior approval required. May be repeated. Grade will be S or U .
EXSC 495A. Practicum: Fitness Centers/ Clubs (2). Observation, monitoring, and supervised assistance of fitness assessment and exercise prescription in community fitness center/club setting. Grade will be S or U.
EXSC 495B. Practicum: Clinical (2).
Observation, monitoring, and supervised activity in clinical rehabilitation and athletic training setting. Grade will be $S$ or U..
EXSC 495C. Practicum: Management (2). Observation, monitoring, and supervised leadership activity in fitness, health, and sport management settings. Grade will be S or U.
EXSC 495D. Practicum: Laboratory
Assessment (2). Laboratory techniques for assessment of body composition, cardiovascular, strength, and flexibility components of fitness. Prerequisite: EXSC 455. Grade will be $S$ or $U$.

## Nutrition Courses

NUTR 140. Introduction to Foods (2)
Examination of scientific principles of food preparation, function of ingredients, effects of preparation techniques, and nutritional considerations. Co-requisite: NUTR 140LAB or permission of instructor. Two hours lecture per week.
NUTR 140LAB. Introduction to Foods Laboratory (2). Co-requisite: NUTR 140. \$20 materials fee. Four hours per week.
NUTR 245. Basic Nutrition (5). Fundamental nutritional concepts as related to health. Four hours lecture and one hour discussion per week.
NUTR 298. Special Topics (1-6).
NUTR 340. Management of Food Resources (2). Food management principles involved in the planning, purchasing, preparing, and serving of meals in relation to nutritional needs, social needs, food preferences, and resources. Prerequisites: NUTR 140 and NUTR 245.
NUTR 340LAB. Management of Food Resources Laboratory (1). Demonstration of food management principles. Prerequisite: NUTR 340, may be taken concurrently. Twenty-dollar materials fee.
NUTR 341. Nutrition I (3). Nutritional aspects of carbohydrates, proteins, lipids, water, and energy. Prerequisite CHEM 112 or CHEM 362.
NUTR 342. Quantity Food Production and Service (4). Principles and techniques
of food production and food safety for restaurants, health care facilities, and other institutions. Prerequisite: NUTR 140. Corequisite: NUTR 342LAB or permission of the instructor.
NUTR 342LAB. Quantity Food Production and Service Laboratory (1). Co-requisite: NUTR 342.
NUTR 343. Foods and Nutrition
Professionalism (1). Professional ethics, career readiness, career research in foods, and nutrition. Prerequisite: junior standing.
NUTR 344. Medical Nutrition Therapy I (3). Introduction to medical nutrition therapy including nutrition care process, diabetes, heart disease, and cancer. Prerequisites: NUTR 245, BIOL 201 or 355, CHEM 111 or 181.

NUTR 345. Developmental Nutrition (3).
Effects of nutrition on development, growth, and health, from conception through aging. Prerequisite: NUTR 245 or NUTR 341.
NUTR 346. Theory and Treatment of Eating Disorders (3). Introduction of the dangers of dieting and the socio-cultural influences toward eating disorders and identification of the history, theory, and treatment of eating disorders. Prerequisite: NUTR 245.
NUTR 347. Introduction to Nutrition Education (3). Introduction to educating individuals and groups about nutrition, from theory to application. Prerequisite: NUTR 245.
NUTR 348. Nutrition Interview (1).
Techniques, procedures, and skills related to nutrition interviewing and counseling. Prerequisite: NUTR 245.
NUTR 398. Special Topics (1-6).
NUTR 405. Hospitality Catering (3).
Basics of off-premise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RT 405, and RT 505 are equivalent courses. Students may not receive credit for more than one.
NUTR 406. Peer Nutrition Education
Practicum (1). Supervised experience as a nutrition educator at the Student Health Center and / or CWU Center for Sports Nutrition. Prerequisites: NUTR 235, NUTR 348 , NUTR 446, or by permission. May be repeated.
NUTR 440. Experimental Foods (3). Physical and chemical bases of food preparation. Experiment testing result of variation in ingredients and manipulative practice. Prerequisite: NUTR 140, NUTR 340, CHEM 112, PSY 362, and ENG 310. Co-requisite: NUTR 440LAB.
NUTR 440LAB. Experimental Foods
Laboratory (2). Co-requisite: NUTR 440. Twenty-dollar materials fee.
NUTR 441. Nutrition and Aging (3). This course will focus on how aging affects nutritional status and the unique needs of the older adult. Prerequisite: NUTR 245.
NUTR 442. Nutrition Assessment Laboratory
(2). Current tools for nutritional assessment with laboratory experience. Prerequisite:

NUTR 443 (can be taken concurrently). One hour lecture and two hours laboratory per week.
NUTR 443. Nutrition II (5). Effect of nutritional and physiological state on the regulation of carbohydrate, lipid, and protein metabolism. Metabolic and physiological role of vitamins and minerals. Prerequisites: NUTR 341, CHEM 113 or CHEM 372, BIOL 201 or BIOL 356, or permission.
NUTR 444. Medical Nutrition Therapy II (3). The influence of nutrition on physiological problems; disease and medical nutritional therapy; nutrition and health management. Prerequisites: NUTR 344 and 443, CHEM 113 or CHEM 432.
NUTR 446. Sports Nutrition and Weight Control (3). Study of interrelationship of factors required for successful weight control; modification of diet, activity, and behavior. Role of dietary factors in health and body function. Prerequisite: NUTR 245 or permission. NUTR 446 and EXSC 446 are equivalent courses. Students may not receive credit for both.
NUTR 447. Nutrition and Society (3).
National and international nutritional problems and programs. Prerequisite: NUTR 245 or NUTR 341.
NUTR 448. Food Service Systems Management (4). Application of organizational management and principles to food-service systems including organizing, staffing, controlling, planning, marketing, and leading. Prerequisites: NUTR 140, NUTR 342, and MGT 380.
NUTR 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervisor, and faculty coordination. Prerequisite: prior approval. May be repeated. Grade will be S or U.
NUTR 491. Workshop (1-6).
NUTR 492A. Dietetic Practicum (10-18). Dietetic Internship Experience. May not be repeated. Credits may not be used to apply to the master's degree. Grade will be S or U . Permission required.
NUTR 492B. Dietetic Practicum (10-18).
Dietetic Internship Experience. Prerequisite: successful completion of 492A. May not be repeated. Credits may not be used to apply to the master's degree. Grade will be S or U . Permission required.
NUTR 492C. Dietetic Practicum (10-
18). Dietetic Internship Experience.

Prerequisites: successful completion of 492A and 492B. May not be repeated. Credits may not be used to apply to the master's degree. Grade will be $S$ or U. Permission required.
NUTR 496. Individual Study (1-6). Grade will be $S$ or U .
NUTR 498. Special Topics (1-6).
NUTR 499. Seminar (1-5). May be repeated.

## PHYSICAL EDUCATION, SCHOOL, AND PUBLIC HEALTH DEPARTMENT

Ellensburg
Physical Education Bldg., room 101
509-963-1911
Fax: 509-963-1848
www.cwu.edu / ~pesph /
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Kenneth Briggs, EdD

## Professors

Kenneth Briggs, EdD, health education, pedagogy
Stephen C. Jefferies, PhD, physical education, pedagogy
Melody Madlem, PhD, public health, health education
Kirk Mathias, EdD, physical education, pedagogy
Robert McGowan, PhD , sport and exercise psychology

## Assistant Professors

Heidi Henschel Pellett, EdD, physical education, pedagogy
Jennifer Lehmbeck, MPH, PhD, public health, health education
Rebecca Pearson, MPH, PhD, public health, health education
Mark Perez, PhD, school health, pedagogy
P. Stefan Ward, PhD, physical education, pedagogy
Therese Young, MA, physical education, dance

## Lecturers

Kristine Espinoza, MS, health education, pedagogy
Tanner Swanson, BS, physical education, pedagogy
Emily Whitney, MS, public health education

## Emeritus Professor

Gary Frederick, EdD, physical education
Andrew P. Jenkins, PhD, health education
Staff
Rhonda Busch-Gehlen, assistant to the chair Joy Chrismer, NPAV building coordinator, equipment manager
Debra D'Acquisto, activity program coordinator
Edie Fowler, PESPH department manager
Debbie Nethery, pool manager

## Department Information

The mission of the Department of Physical Education, School, and Public Health (PESPH) is to promote health and active lifestyles. The vision of the Department of PESPH is to create highly recognized and respected academic programs in which students gain the knowledge, skills, and dispositions to be successful in their profession. This mission and vision and the following core values help to guide program decisions within the department:

- Professional environment based on ethical behavior, respect, and integrity
- Quality of life through health promotion, healthy communities, and active lifestyles
- Student focused learning environment based on respect, relevance, and rigor
- Social justice and diversity

Proudly, graduates of each major program in the department are highly qualified to enter careers in physical education and school health or public health.

## Departmental Programs

Physical Education and School Health (PESH) Major
Physical Education - Coaching Minor
Physical Education - Dance Minor
Physical Education - Dance: Teaching Minor
Physical Education - Activity Program
Public Health Major - Community Health Specialization
Public Health Major - Pre-nursing in Public Health Specialization
Public Health - Community Health Education Minor

## Bachelor of Science Physical Education and School Health (PESH)

Program Director
Kirk Mathias, EdD
Program Advisors
Kenneth Briggs, EdD, health education, pedagogy
Stephen C. Jefferies, PhD, physical education, pedagogy
Heidi Henschel Pellett, PhD, physical education, pedagogy
Mark Perez, EdD, health education, pedagogy
Tanner Swanson, BS, physical education
P. Stefan Ward, PhD, physical education, pedagogy

This major satisfies the Washington State endorsement for K-12 health / fitness.

Admission Description and Requirements
Students may enter the physical education and school major in either the fall or winter quarters. Students planning to enter this dynamic and innovative pedagogically
oriented program need to meet with the program director prior to admission. This program coupled with teacher education requirements is designed to satisfy the Washington State Teaching Endorsement requirements to teach $\mathrm{K}-12$ health and fitness. The following additional requirements also apply:

1. Classes in this major are organized over six consecutive quarters and must be taken in sequence.
2. Students who receive less than a C grade in any class that is a prerequisite for others will not be permitted to continue in the major.
3. Students taking this major who plan to teach in Washington State public schools are required to complete the Professional Education Program requirements offered through the Teacher Preparation program in the College of Education and Professional Studies.
4. Students may also graduate with a nonteaching BS degree in physical education and school health.
5. All students must complete a professional portfolio prior to beginning student teaching. Non-teaching majors must complete the portfolio prior to graduation.
6. Professional dress requirements apply to many classes in this major. Students must comply with these requirements to participate in the program.
See the physical education, school, and public health Web site for more information: www.cwu.edu / ~pesph

For the major application procedure, contact the physical education and school health program director.

## Required Courses

EMS 245 - First Aid
EXSC 250 - Anatomical Kinesiology . . . . . . . 5
EXSC 463 - Pediatric Issues in
Exercise Science
NUTR 245 - Basic Nutrition. . . . . . . . . . . . . . . . 5
HED 101 - Health Essentials . . . . . . . . . . . . . . 4
HED 210 - Drugs and Health ................ 3
HED 326 - Human Diseases. . . . . . . . . . . . . . . 5
HED 345 - School Health Curriculum Materials
HED 387 - Principles of Stress Management. 3


HED 422 - Methods for Health Promotion . . 4
HED 444 - Professionalism in the Schools. . . 2
PESH 280 - Foundations of School Health
and Fitness $\qquad$
PESH 335 - PE Teaching Practicum I . . . . . . . 1
PESH 336 - PE Teaching Practicum II ...... 2
PESH 341 - Characteristics of Effective
Physical Education Teaching. . . . . . . . . . . . 3
PESH 342 - Developmental Movement . . . . . 4
PESH 343 - Pedagogical Application of
Teaching Styles and Systematic Reflection 3
PESH 344 - Applications of Technology in
Teaching Fitness and Physical Activity . . . 3
PESH 348 - Applications of the Fundamental
Movement of Striking. . . . . . . . . . . . . . . . . 3
PESH 350 - Propulsive and Receptive Skills and Sports.
. .4
PESH 356 - Techniques of Progressive and
Lifelong Physical Activities $\qquad$
PESH 385 - Health and Physiological Fitness
Concepts for Teachers. . . . . . . . . . . . . . . . . . 3
PESH 437 - PE Teaching Practicum III ..... 2
PESH 438 - PE Teaching Practicum IV ..... 3
PESH 445 - Curriculum Development and
Assessment in Physical Education . . . . . . . 3
PESH 456 - Facilitating and Leading Adventure Activities.

Total Credits: 85

## Physical Education <br> Dance Minor

Program Coordinator
Therese Young, MA
The dance minor is designed for students who wish to broaden their academic background and receive a well-rounded dance education, thus preparing them to teach dance and / or dance activities in a wide variety of settings.

Students will be required to complete both coursework and technique classes in those areas of dance frequently taught in a K-12 setting. Additionally, students will develop competencies in choreography, rhythmic concepts, dance production, and teaching.

Requirement: minimum of one year active membership in Orchesis Dance Company.

## Required Courses

PED 101 - Modern Dance I . . . . . . . . . . . . . . . 2
PED 102 - Modern Dance II . . . . . . . . . . . . . . . 2
PED 103 - Modern Dance III . . . . . . . . . . . . . . . 2
PED 104 - Ballet I (Level 1). . . . . . . . . . . . . . . . 2
PED 105 - Ballet I (Level 2). . . . . . . . . . . . . . . . . 2
PED 106 - Ballet I (Level 3). . . . . . . . . . . . . . . . 2
PED 116 - Beginning Folk Dance . . . . . . . . . . 1
PED 135 - Ballroom Dance I. . . . . . . . . . . . . . . 1
PED 161 - Cultural History of Dance ...... 4
PED 211 - Music for Dance - Rhythms and
Resources
. . 2
PED 302 - Dance Production ............... 3
PED 309 - Teaching Methods: Recreational
Dance ...................................... . . . 3
PED 314 - Dance for Children . . . . . . . . . . . . 3
Total Credits: 29

## Physical Education <br> Dance: Teaching Minor

Program Coordinator
Therese Young, MA
Requirement: minimum of one year active membership in Orchesis Dance Company. This minor satisfies the endorsement for dance.

## Required Courses

EXSC 250 - Anatomical Kinesiology . . . . . . 5
PED 101 - Modern Dance I . . . . . . . . . . . . . . . 2
PED 102 - Modern Dance II . . . . . . . . . . . . . . 2
PED 103 - Modern Dance III . . . . . . . . . . . . . . . 2
PED 104 - Ballet I (Level 1). . . . . . . . . . . . . . . . . 2
PED 105 - Ballet I (Level 2). . . . . . . . . . . . . . . . 2
PED 106 - Ballet I (Level 3). . . . . . . . . . . . . . . . 2
PED 116 - Beginning Folk Dance . . . . . . . . . . . 1
PED 135 - Ballroom Dance I. . . . . . . . . . . . . . . 1
PED 161 - Cultural History of Dance ...... 4
PED 211 - Music for Dance - Rhythms and
Resources
.2
PED 301 - Choreography . . . . . . . . . . . . . . . . . 3
PED 302 - Dance Production . . . . . . . . . . . . . 3
PED 309 - Teaching Methods: Recreational
Dance . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PED 314 - Dance for Children . . . . . . . . . . . . 3
PED 315 - Teaching Methods: Modern and Ballet Dance

Total Endorsement Credits: 40

## Physical Education <br> Coaching Minor

## Program Coordinator

Kirk Mathias, EdD
It is recommended for students to obtain state teaching certification for permanent employment coaching opportunities.

The coaching minor meets the standards of the Washington Interscholastic Athletic Association (WIAA) regarding recommended standards for employment at the Preferred Coach Level. Requirements (Item 23.4.1, WIAA Handbook) for all levels listed below.
These levels are:
Beginning Coach
Experienced Coach
Preferred Coach

## Required Courses

EMS 245 - First Aid . . . . . . . . . . . . . . . . . . . . 3
EXSC 250 - Anatomical Kinesiology . . . . . . . 5
EXSC 348 - Prevention and Treatment of
Athletic Injuries . .4
EXSC 351 - Scientific Foundations of
Health and Fitness . . . . . . . . . . . . . . . . . 5
HED 205 - Drugs and Sport . . . . . . . . . . . . . 2
PE 346 - Administration of Athletics . . . . . . . 3
PE 453 - Psychological and Sociological
Foundations of Coaching ............... . . 3
PESH 336 - PE Teaching Practicum II . . . . . . 2
PESH 341 - Characteristics of Effective
Physical Education Teaching .3

Electives
Select a minimum of 6 credits from the following:
PE 321 - Football Coaching (3)
PE 322 - Wrestling Coach (3)
PE 323 - Basketball Coaching (3)
PE 324 - Track Coaching (3)
PE 325 - Baseball Coaching (3)
PE 326 - Theory of Coaching Soccer (3)
PE 329 - Tennis Coaching (3)
PE 330 - Volleyball Coaching (3)
PE 442 - Field Work in Physical Education (3)
PE 521 - Advanced Football Coaching (3)
PE 523 - Advanced Basketball Coaching (3)
PE 524 - Advanced Track Coaching (3)
PE 525 - Advanced Baseball
Coaching (3)
Total Credits: 36

## Public Health Education Program

Program Director
Melody Madlem, PhD

## Advisors

Jennifer Lehmbeck, MPH, PhD
Melody Madlem, PhD
Rebecca Pearson, MPH, PhD

## Program Information

The mission of the Public Health Education program at Central Washington University is to create an atmosphere of mutual respect, resulting in a positive impact on the health of individuals, groups, communities, and the world at large.

The Public Health Education program at CWU will be known as a student-centered, evidence-based program that prepares professionals to plan, implement, and evaluate innovative strategies that promote social justice, health and well-being for individuals, groups, communities and the world at large.

Faculty members of the Public Health Education program share an essential passion, embodied in our roles as teachers and lifelong learners, to serve the needs of our students. We are committed to the following values:

- Healthy people in healthy communities
- Professionalism: ethics, honesty, respect, and integrity
- Commitment to learning: relevance, rigor, collaboration, and collective wisdom
- Diversity of ideas, people, and cultures

Students in this program major in public health and must specialize in either community health education or pre-nursing in public health. Please contact the program director for an application.

## 6

## Bachelor of Science <br> Public Health Major

Students who major in public health are trained to be at the leading edge of prevention and health promotion. Specializing in either community health education or pre-nursing in public health, students are prepared to work with individuals, groups, or entire communities on a myriad of population-based health issues.
Special requirements other than departmental: HED 230 must be taken prior to HED 422,
HED 230 and HED 310 must be taken prior to HED 475.

Public Health Core Requirements
HED 210 - Drugs and Health .3
HED 230 - Foundations of Health
Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 310 - Community Health . . . . . . . . . . . . . 3
HED 317 - International Health . . . . . . . . . . . 3
HED 320 - Environmental Health
Education
. . 3
HED 330 - Health Assessment . . . . . . . . . . . . 4
HED 370 - Current Trends in Health and Health Education . . . 3
HED 387 - Principles of Fitness and Stress Management
. . 3
HED 422 - Methods for Health Promotion . . 4
HED 445 - Health Education
Professionalism . . . . . . . . . . . . . . . . . . . . . .
HED 450 - Community Organization and Coalition Development
HED 471 - Program Planning I . .....  5
HED 472 - Program Planning II 5

HED 473 - Health Education Program Evaluation3
HED 475 - Community Health
Administration ..... 3
HED 490 - Cooperative Education ..... 10
NUTR 245 - Basic Nutrition .....  5

Total Core Credits: 64

## Community Health Education Specialization

The community health education specialization (CHED) will prepare students to assess, plan, implement, and evaluate health programs that are designed to improve quality of life for all. Emphasis is placed on population health and the myriad of influencing factors as they relate to community. Students are encouraged to complete the Comprehensive Health Education Specialist (CHES) exam upon completion of the program.

## Required Courses

Public Health Core Requirements . . . . . . . . 64
FS 337 - Human Sexuality . . . . . . . . . . . . . . . . 4
HED 209 - Consumer Health . . . . . . . . . . . . . 3
HED 323 - Infectious Disease . . . . . . . . . . . . . . 3
HED 324 - Noninfectious Disease . . . . . . . . . 4
HED 340 - Technological Applications in Health Education . . 3
HED 380 - Epidemiology . . . . . . . . . . . . . . . . 3
HED 440 - Social Marketing of Health Education Programs

HED 460 - Controversial Issues in Health
Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Department-approved electives . . . . . . . . . . . 9
Total Credits: 99

## Pre-nursing in Public Health Specialization

Dorothy Purser Hall, room 108
509-963-1971

## Advisors

Melody Madlem, PhD
Jannifer Lehmbeck, PhD
Rebecca Pearson, PhD
The pre-nursing in public health specialization within the public health major prepares students to meet entrance requirements to Bachelor of Science in Nursing (BSN) programs throughout Washington. Armed with leading-edge scientific knowledge and liberal arts content, combined with an extensive public health internship, the pre-public health nursing specialization allows future professionals to enter nursing school with a solid background in public health theory and practice. CWU does not offer a degree program in nursing, but offers all prerequisite courses necessary for successful admission to professional nursing programs available across Washington.

Most pre-nursing students will complete the BS degree in public health with a specialization in pre-nursing in public health. The specialization also prepares students to assume key roles within public health agencies as health promotion specialists/ prevention specialists. With a comprehensive background in population-based health, graduating students can make immediate contributions to the health of the public.

Pre-requisites for admission to nursing school that meet General Education
Requirements for pre-nursing specialization:
SOC 101 or 107 or 205, PSY 101; CHEM 111
and CHEM 111LAB, BIOL 201.

## Required Courses

Public Health Core Requirements - Credits: 64
BIOL 220 - Introductory Cell Biology . . . . . . 5
BIOL 322 - Introductory Microbiology . . . . . 5
BIOL 355 - Human Anatomy and
Physiology
BIOL 356 - Human Anatomy and
Physiology
CHEM 112 - Introduction to Organic
Chemistry
CHEM 112LAB - Introduction to Organic
Chemistry Laboratory
. 1
CHEM 113 - Introduction to Biochemistry . . 4
CHEM 113LAB - Introduction to
Biochemistry Laboratory . . . . . . . . . . . . . . . 1
MATH 311 - Statistical Concepts and
Methods
. 5
PSY 313 - Developmental Psychology . . . . . . 4
Total Credits: 103

## Community Health Education Minor

Program Director
Melody Madlem, PhD
The minor in community health education is an excellent supporting option for individuals interested in the health and human services fields. Students will gain insight into public health processes and settings, skills in needs assessment, program planning, and program evaluation.

## Required Courses

HED 230 - Foundations of Health
Education.
HED 310 - Community Health . . . . . . . . . . . . 3
HED 323 - Infectious Disease . . . . . . . . . . . . . 3
HED 324 - Noninfectious Disease . . . . . . . . . 4
HED 422 - Methods for Health Promotion . . 4
HED 460 - Controversial Issues in Health
Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 471 - Program Planning I . . . . . . . . . . . . 5
HED 472 - Program Planning II . . . . . . . . . . 5
Total Credits: 30

## Physical Education Courses

PE 298. Special Topics (1-6).
PE 321. Football Coaching (3).
PE 322. Wrestling Coach (3).
PE 323. Basketball Coaching (3)
PE 324. Track Coaching (3).
PE 325. Baseball Coaching (3).
PE 326. Theory of Coaching Soccer (3). This course provides an in-depth examination of the coaching of soccer at all school-age levels. May be repeated up to 6 credits.
PE 329. Tennis Coaching (3).
PE 330. Volleyball Coach (3).
PE 333. Swimming Coaching (3).
PE 334. Physical Education Activities for the Elementary School (3). Selection, organization, and presentation of physical education activities in the elementary school. Enrollment is subject to being fully admitted to the Teacher Preparation Program.
PE 346. Administration of Athletics (3).
PE 365. Foundations of Coaching (3). Introduction to principles and methods of coaching sports with children and youth.
PE 398. Special Topics (1-6).
PE 442. Field Work in Physical Education (1-6). Class to be arranged by college supervisor. Grade will be $S$ or $U$. May be repeated.
PE 448. Ethics in Sports (3). Ethical considerations involved in coaching, playing, and administering sports.
PE 453. Psychological and Sociological Foundations of Coaching (3). Investigation of factors affecting individual and group behavior in the coaching of interscholastic sports.
PE 484. Legal Liability and Risk
Management (3). Aspects of personnel law and premises liability in public, private, and not-for-profit education, human, and
social services organizations. Procedures for managing risks. Open to Recreation and Tourism Management and Physical Education majors, and PE graduate students only. PE 484 and RT 484 are equivalent courses.
PE 491. Workshop Clinic (1-6). Letter grades or $S$ or $U$ grades may be given at the option of the Physical Education Department.
PE 492. Practicum (1-4). Practical experience working with children in physical education activities. Prerequisite: permission of elementary physical education advisor. May be repeated for credit. Four credits required in major.
PE 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
PE 498. Special Topics (1-6).
PE 499. Seminar (1-5). May be repeated.

## Physical Education Health Courses

PESH 280. Foundations of Physical Education and School Health (4). Fundamental issues, theories, paradigms, constructs, history, and experiences necessary for an understanding of teaching health and physical education as a profession and lifestyle.
PESH 335. Practicum I (1). Students will observe and assist in PE classes at elementary and secondary levels in a local school for four hours a week throughout the quarter. Prerequisite: PESH 280 and Physical Education major or Coaching minor.
PESH 336. Practicum II (2). Physical education teaching practicum. Prerequisites: PESH 280, PESH 335, and Physical Education major or Coaching minor.
PESH 341. Characteristics of Effective Physical Education Teaching (3). Examination of selected pedagogical principles and their impact on the teaching of human movement. Prerequisite: PESH 280.

PESH 342. Developmental Movement (4). Instruction in the analysis and teaching of movement concepts, locomotor, and nonlocomotor skills. Prerequisite: PESH 280.
PESH 343. Pedagogical Application of Teaching Styles and Systematic Reflection (3). The purpose of this course is to expand your already-developed effective teaching skills and knowledge to include styles of teaching and systematic analysis. Prerequisites: PESH 341 and PESH 342.
PESH 344. Applications of Technology in Teaching Fitness and Physical Activity (3). Introduces students to the plethora of technological advances being used to teach children about their health. Prerequisite: PESH 280. Must be taken concurrently with PESH 341.
PESH 348. Applications of the Fundamental Movements of Striking (3). Identify critical components of striking skills and applicable sports. Prerequisites: PESH 280, PESH 341, PESH 342, PESH 343, and PESH 344.

PESH 350. Propulsive and Receptive Skills and Sports (4). Identify critical components of selected manipulative movements and related sports. Prerequisites: PESH 280, PESH 341, PESH 342, and PESH 343.
PESH 356. Teaching Lifelong Physical Activity Pursuits (3). Introduces students to methodology related to teaching nontraditional activities in traditional and nontraditional settings. Prerequisites: PESH 280, PESH 341, and PESH 342.
PESH 385. Health and Physiological Fitness Concepts for Teachers (3). This class is designed to provide health and physical education pre-service teachers, physiological information with an emphasis on application, and its direct implications on teaching k-12 students.
PESH 437. Practicum III (2). Physical Education teaching practicum.
Prerequisites: PESH 280, PESH 335, and PESH 336.
PESH 438. Practicum IV (3). Physical Education teaching practicum.
Prerequisites: PESH 280, PESH 335, and PESH 336.
PESH 445. Curriculum Development and Assessment in Physical Education (3). Examination of specific pedagogical principles and their impact on the teaching of human movement. Prerequisites: PESH 341, PESH 342, and PESH 343.
PESH 456. Facilitating and Leading Adventure Activities in the Schools (2). Identify critical components of selected outdoor pursuits and circus arts activities. Prerequisites: PESH 280, PESH 341, PESH
342, PESH 343, PESH 356, and PESH 350.

## Aquatics Courses

PEAQ 110. Springboard Diving (1).
PEAQ 111. Beginning Swimming (1).
PEAQ 112. Intermediate Swimming (1).
Prerequisite: must be able to swim 50 yards.
PEAQ 113. Advanced Swimming (1).
Prerequisite: ability to swim 200 yards continuously, employing at least three strokes. Refinement of standard strokes and dives.
PEAQ 114. Swim Conditioning (1).
Prerequisite: must be an intermediate swimmer.
PEAQ 116. Water Polo (1). Prerequisite: must be an intermediate swimmer.
PEAQ 118. Aquacises (1). Designed to increase the physical fitness of individuals through water exercises and jogging. Open to both swimmers and non-swimmers.
PEAQ 120. Advanced Springboard Diving (1). Advanced diving is designed to further the students' knowledge and skill in springboard diving. Students will perform dives of varying degrees of difficulty. Prerequisite: PEAQ 110 or by permission of instructor.
PEAQ 198. Special Topics (1).
PEAQ 221. Lifeguard Training (3). American Red Cross-approved course for which certification may be granted. The course
will include rescue technique, preventative lifeguarding, and conditioning.
Prerequisites: PEAQ 113 or permission. Two hours lecture and one hour laboratory per week.
PEAQ 222. Lifeguard Training Instructor (4). Certify students to teach the American Red Cross Basic Water Safety course, Emergency Water Safety course, lifeguard training, and lifeguard training review. Prerequisites: PEAQ 221 and current American Red Cross lifeguard training certificate. One hour lecture and two hours laboratory per week.

## Dance Courses

PED 101. Modern Dance I (2). Basic modern dance techniques and beginning composition. One hour lecture; two hours laboratory per week.
PED 102. Modern Dance II (2). Four hours of intermediate modern dance theory and technique. Experience in solo and group compositions. Prerequisite: PED 101.
PED 103. Modern Dance III (2). Four hours of advanced modern dance theory and techniques. Emphasis on performance and solo composition. Experience in organizing and presenting programs. Prerequisite: PED 102.

PED 104. Ballet I (Level 1) (2). Beginning technique in classical ballet, including barre, center work, and enchainments (center combinations).
PED 105. Ballet I (Level 2) (2). Intermediate technique in classical ballet including barre, center work, and enchainments (center combinations). Prerequisite: PED 104.
PED 106. Ballet I (Level 3) (2). Advanced technique in classical ballet including barre, center work, and enchainments (center combinations). Prerequisite: PED 105.
PED 112. Dance Rehearsal and Performance. (1). Open to individuals participating in performances of Orchesis Dance Company. May be repeated for credit.
PED 116. Beginning Folk Dance (1). Traditional recreational dances of various countries.
PED 121. Tap Dance I (1).
PED 130. Beginning Yoga (1).
PED 131. Yoga Level II (1). This class will review and refine techniques learned in the beginning yoga class, as well as further discussion and practice of yoga postures and other topics related to yoga. Prerequisite, PED 130.
PED 135. Ballroom Dance I (1). Emphasis on the ballroom styling of the foxtrot and waltz. Repeatable to a maximum of 3 credits.
PED 136. Ballroom Dance II (1). Emphasis on the tango and cha cha. Prerequisite: PED 135 or permission.
PED 138. Swing Dance I (1). Emphasis on ballroom dances of East Coast swing, charleston, and lindy hop.
PED 139. Swing Dance II (1). Emphasis on West Coast swing, continued work on charleston and lindy hop. Prerequisite: PED 138. May be repeated for up to 3 credits.

PED 141. Jazz Dance I (1).
PED 142. Jazz Dance II (1). Prerequisite: PED 141 or permission.
PED 143. Jazz Dance III (1). Advanced level jazz dance technique.
PED 161. Cultural History of Dance (4). A survey course in the evolution of dance through the ages with emphasis on the major forces that have influenced dance in the 20th century.
PED 198. Special Topics.
PED 204. Ballet II (Level 1) (2). Continued training in classical ballet techniques (Level II) including barre and center work. Increased emphasis on beats, multiple turns, and jumps. Prerequisite: PED 106 and permission of the instructor.
PED 205. Ballet II (Level 2) (2). Continued training in classical ballet technique (Level II) including barre and center work. Increased emphasis on beats, multiple turns, and jumps. Prerequisite: PED 204 and permission of the instructor.
PED 206. Ballet II (Level 3) (2). Continued training in classical ballet techniques (Level II) including barre and center work. Increased emphasis on beats, multiple turns, and jumps. Prerequisite: PED 205 and permission of the instructor.
PED 211. Music for Dance - Rhythms and Resources (2). A study of rhythmic concepts as related to dance movements and composition; an introduction to music resources emphasizing composer/ choreographer collaborations. Prerequisite: PED 201A.
PED 212. Choreography and Production
(2). Choreography and production work for Orchesis dance company. Prerequisite: by permission of the instructor. Must be a member of Orchesis dance company.
PED 301. Choreography (3). The study and practice of choreographic techniques and tools utilizing creative problem solving. Prerequisite: PE 201A or instructor's permission. Students will meet for two hours laboratory work each week plus two hours lecture.
PED 302. Dance Production (3). Aspects of organizing and mounting a dance production, including scheduling, programming, publicity, costuming, lighting, and sound design.
PED 309. Teaching Methods: Recreational Dance (3). Knowledge of skills necessary in the teaching of various forms of recreational dance styles. Prerequisite: PED 116 or permission. Two hours lecture and two hours laboratory per week.
PED 314. Dance for Children (3). Strategies for teaching dance in elementary education, including creative dance, rhythmic exploration, use of props, unit plan development, and methods of assessment.
PED 315. Teaching Methods: Modern and Ballet Dance (3). Teaching methods for modern and ballet technique classes which emphasizes the development of critical and creative thinking skills, observation skills, and assessment skills. Prerequisites: PED 201A and PED 201B.

## Fitness Activities Courses

One credit (1), meets twice weekly.
PEF 110. Conditioning Exercises. (1). (Meets twice weekly.)
PEF 111. Intermediate Conditioning Exercises. (1). Prerequisite: PEF 110 or permission. (Meets twice weekly.)
PEF 112. Ski Conditioning. (1). (Meets twice weekly.)
PEF 113. Weight Training. (1). (Meets twice weekly.)
PEF 114. Intermediate Weight Training. (1). Prerequisite: PEF 113 or permission. (Meets twice weekly.)
PEF 115. Jogging. (1). (Meets twice weekly.)
PEF 117. Advanced Weight Training (1). Course is designed to enhance the student's knowledge and practices of weight training. Course is oriented toward the development of strength with a particular athletic pursuit.
PEF 118. Military Conditioning I (1). Physical conditioning activities designed to prepare the Army ROTC student for Leader Development Assessment course and active military duty. Course is work-out oriented with emphasis on physical fitness goals. Meets three times weekly. Open to all CWU students. Repeatable up to four times.
PEF 119. Military Conditioning II (1).
Physical conditioning activities designed to prepare the Army ROTC student for Leader Development Assessment course and active military duty. Course is work-out oriented with emphasis on physical fitness goals. Meets three times weekly. Open to all CWU students. Repeatable up to four credits.
PEF 120. Military Conditioning III (1). Physical conditioning activities designed to prepare the Army ROTC student for Leader Development Assessment course and active military duty. Course is work-out oriented with emphasis on physical fitness. Meets three times weekly. Open to all CWU students.
PEF 121. Step Aerobics. (1). (Meets twice weekly.)
PEF 122. Dance Fusion (1). Course combines elements of traditional high- and lowimpact dance aerobics with zumba, jazz, power yoga, and sport movements into basic combinations. (Meets twice weekly.)
PEF 123. Aerobic Walking. (1). Assessment of present level of cardio respiratory fitness and prescription of an individualized aerobic walking exercise program for increasing and maintaining fitness. (Meets twice weekly.)
PEF 126. Kick/Box Aerobics. (1). Safe, effective aerobic work-out mimicking basic self-defense, and boxing movements. (Meets twice weekly.)
PEF 128. Glute/Abdominal Conditioning.
(1). Course emphasizes abdominal conditioning, gluteal toning, and core muscle strengthening in a low-impact format. Background music and various equipment is used for an effective workout. (Meets twice weekly.)

PEF 129. Abdominal Strength Conditioning . (1). Course emphasizes strengthening and conditioning the abdominals and core muscles for appearance and for performance. Use of equipment for fun and effectiveness. (Meets twice weekly.)
PEF 130. Triathlon Training. (1). (Meets twice weekly.)
PEF 131. Frisbee (1). This course encourages positive social interaction, develops eyehand coordination skills, is recreational, and may be an avenue to encourage students to become more active in a gentle way.
PEF 132. Women's Self Defense (1). A program of realistic self-defense tactics and techniques for women, including education about awareness, prevention, risk reduction, and risk avoidance of violence. May be repeated up to 4 credits.
PEF 198. Special Topics. (1). (Meets twice weekly.)

## Individual and Dual Sports

## Courses

PEID 110. Beginning Badminton. (1). (Meets twice weekly.)
PEID 113. Beginning Bowling. (1). (Meets twice weekly.)
PEID 114. Intermediate Bowling. (1). Prerequisite: PEID 113 or permission. (Meets twice weekly.)
PEID 115. Beginning Golf. (1). (Meets twice weekly.)
PEID 116. Intermediate Golf. (1).
Prerequisite: PEID 115 or permission. (Meets twice weekly.)
PEID 117. Advanced Golf. (1). (Meets twice weekly.)
PEID 120. Beginning Fencing. (1). (Meets twice weekly.)
PEID 121. Intermediate Fencing. (1). (Meets twice weekly.)
PEID 123. Beginning Tennis. (1). (meets twice weekly)
PEID 124. Intermediate Tennis. (1).
Prerequisite: PEID 123 or permission.
(Meets twice weekly.)
PEID 125. Advanced Tennis. (1). Prerequisite: PEID 124 or permission. (Meets twice weekly.)
PEID 128. Beginning Skiing and Snowboarding (1). Beginning skiing and snowboarding is designed to introduce the student to the basic knowledge of skiing and snowboarding techniques with the development of the physical skills necessary to participate safely. (Meets twice weekly.)
PEID 129. Intermediate Skiing. (1).
Prerequisite: PEID 128 or permission. (Meets twice weekly.)
PEID 130. Cross Country Skiing. (1). (Meets twice weekly.)
PEID 134. Bicycling. (1). (Meets twice weekly.)
PEID 136. Pickleball (1). Class is designed to introduce student to basic skills, fundamentals, safety procedures, and knowledge to participate in pickleball as a
life-long activity. (Meets twice weekly.)
PEID 137. Hiking and Orienteering. (1). (Meets twice weekly.)
PEID 138. Karate. (1). (Meets twice weekly.)
PEID 140. Fly Fishing (1). (Meets twice weekly.)
PEID 145. Beginning Circus Arts (1). Introduction to juggling, unicycling, and similar skills involving balance and coordination. (Meets twice weekly.)
PEID 147. Conceptual Martial Arts (1). This course is designed to introduce students to the techniques and motions of self-defense. (Meets twice weekly.)
PEID 148. Advanced Martial Arts (1). Course is designed to further challenge students to techniques and motions of self-defense. Develops self-discipline, hand / eye-foot coordination, and personal awareness. Prerequisite: PEID 147 or permission of the instructor. May be repeated for up to 12 credits.
PEID 198. Special Topics. (1). (Meets twice weekly.)

## Team Sports Courses

PETS 110. Basketball. (1). (Meets twice weekly.)
PETS 113. Soccer. (1). (Meets twice weekly.) PETS 114. Softball (Slow Pitch.) (1). (Meets twice weekly.)
PETS 116. Volleyball. (1). (Meets twice weekly.)
PETS 117. Advanced Volleyball. (1).
Prerequisite: PETS 116 or permission. (Meets twice weekly.)
PETS 120. Table Tennis (1). Table tennis will teach skills used during pair and partner play that will increase the player's ability to play faster with more accuracy.
PETS 198. Special Topics. (1). (Meets twice weekly.)

## Varsity Sports for Men Courses

One credit (1), two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVM 110. Baseball (1)
PEVM 111. Basketball (1)
PEVM 112. Cross Country (1)
PEVM 113. Football (1)
PEVM 117. Track and Field (1)

## Varsity Sports for Women Courses

One credit (1), two or three hours activity per day plus all regularly scheduled meetings and game sessions. May be repeated for credit.
PEVW 110. Basketball (1)
PEVW 111. Cross Country (1)
PEVW 116. Track and Field (1)
PEVW 117. Volleyball (1)
PEVW 118. Soccer (1)

PEVW 119. Softball (1)
PEVW 120. Cheerleading (1)

## Health Education Courses

HED 101. Health Essentials (4). Fundamental patterns and understanding of human interaction with natural and man-made environments intended to help students make informed judgments.
HED 205. Drugs and Sport (2). Survey of the potential hazards of recreational, ergogenic, and restorative drugs commonly used by athletes.
HED 209. Consumer Health (3). Analysis of health aids, cosmetics, non-prescription drugs, health fads, and fallacies. Critical evaluation of advertising and promotional schemes; quackery.
HED 210. Drugs and Health (3). Uses and abuses of drugs. Special emphasis will be on psycho-physiological effects upon human health and responsible drug use.
HED 230. Foundations of Health Education (3). Fundamental theories, paradigms, constructs, history, and experiences necessary for comprehensive understanding of health education as a profession and lifestyle.
HED 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
HED 298. Special Topics (1-6).
HED 299. Seminar (1-5). May be repeated.
HED 310. Community Health (3). An overview of contemporary community health programs; problems in community health at the local, national, and international levels.
HED 317. International Health (3). Explores the health status of people within the global community. Explores specific health issues endemic to certain parts of the world and related programs.
HED 320. Environmental Health Education (3). Explores basic environmental health topics that public health educators will use in community settings, including models and theories that encourage community involvement.
HED 322. Pedagogical Foundations of Public Health (3). This course is designed to help students create and deliver dynamic health presentations in a community or public health setting. Students will learn the pedagogy behind presenting a health topic keeping in mind audience inclinations and learning styles.
HED 323. Infectious Disease (3). This course introduces students to the various principles related to the identification, treatment, and prevention of various infectious diseases. Additionally, the physical, social, psychological, and monetary implications of these infectious diseases in society are addressed.
HED 324. Noninfectious Disease (4). Course consists of three hours of course work and two hours of medical terminology lab.

HED 326. Human Diseases (5). Introduces students to fundamental principles relating to identification, prevention, and control of noninfectious and infectious diseases in contemporary society; emphasis on physical, social, psychological, and environmental issues surrounding these diseases. Prerequisites: PESH 280 and HED 101.

HED 330. Health Assessment (4). Theory and practice of evaluating the health or condition of individuals and groups.
Prerequisite: HED 230 or permission of instructor.
HED 340. Technological Applications in Health Education (3). Assist students in utilizing computerized sources of information, methods of instruction, understand technology applied to training, and a better use of computers for health information resources.

## HED 345. School Health Curriculum/

Materials (3). Examination of existing curricula and teaching materials. Design and development of school health curricula. Prerequisites: HED 210 and 230.
HED 370. Current Trends in Health and
Health Education (3). Contemporary health education topics and issues are explored through classroom and community contacts, visual, Web-based, and interactive media. May be repeated for up to 6 credits.
HED 380. Epidemiology (3). Prerequisites:
HED 323 and HED 324, or permission of instructor.
HED 387. Principles of Fitness and Stress Management (3). The theory and practice of health enhancement through fitness and stress management.
HED 398. Special Topics (1-6).
HED 412. Health Aspects of Aging (3). Examination of total health as it relates to the aged and the aging process. Prerequisite: HED 101 or permission of instructor.
HED 422. Methods for Health Promotion
(4). Prerequisites HED 101 and HED 230, or permission of instructor.
HED 431. Principles of Sexuality Education (3). Principles and content for sex education in school and community settings.
Prerequisite: FS 337 or permission. HED 431 and FS 431 are cross-listed courses. Students may not receive credit for both.
HED 440. Social Marketing of Health Education Programs (3). Social marketing theory and practice, health communication strategies, and basic qualitative research methods applied to social marketing theory. Prerequisite: HED 230.
HED 442. Field Work and Experience in Health Education (1-15). Observation and participation in health programs, and/or HED 101. Prerequisite: permission of the instructor. May be repeated to a maximum of 15 credits.
HED 444. Professionalism in the Schools (2). This course provides an opportunity for the learner to assess and to fine-tune student
teaching and job readiness as excellent educators. Prerequisite: admission into the Physical Education or School Health Education major.
HED 445. Health Education Professionalism
(1). Professional ethics, job readiness, and job search in health education. Prerequisite: to be taken one of the last two quarters before internship placement senior year.
HED 446. Health Education Curriculum for Elementary Teachers (3). Examination of available curricula and teaching materials in health education for elementary school teachers. Students must develop an elementary health education curriculum. Enrollment is subject to being fully admitted to the Teacher Preparation Program or permission of the instructor. HED 450. Community Organization and Coalition Development (3). Introduction to history, issues, and skills surrounding community organizing and development activities. Prerequisites: HED 230 and senior standing.
HED 460. Controversial Issues in Health Education (3). Current and controversial issues confronting school and community health education. Prerequisite: HED 230. Co-Prerequisite: HED 422.
HED 471. Program Planning I (5). Health program planning; needs assessment and goal setting. Prerequisite: HED 230.
HED 472. Program Planning II (5). Health program planning; implementation and evaluation. Prerequisite: HED 471.

HED 473. Health Education Program
Evaluation (3). Covers basic survey research design and basic quantitative and qualitative research methods. Students will understand the basic skills of program evaluation planning. Prerequisites: HED 471 and HED 472.
HED 475. Community Health
Administration (3). Understanding and application of knowledge to various administrative tasks in community health. Grants, management, and personnel issues will be covered. Prerequisites: HED 472.
HED 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
HED 491. Workshop (1-6). Topics in health education, including work sessions, lectures, and demonstrations.
HED 492. Practicum (4). Practical experience and application of responsibilities and competencies necessary for practicing health education. Prerequisite: HED 345 or 472 or permission of instructor.
HED 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
HED 498. Special Topics (1-6).
HED 499. Seminar (1-5). May be repeated.


# TEACHING ELEMENTARY, ADOLESCENT, AND YOUNG CHILDREN DEPARTMENT (TEACH) 

Ellensburg
Black Hall, room 101
509-963-1464
Fax: 509-963-1162
www.cwu.edu/ ~education
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
David Shorr, PhD

## Professors

Susan Donahoe, PhD, elementary education David Shorr, PhD, early childhood education

## Associate Professors

Susan Donahoe, PhD, elementary education Cory Gann, MA, early childhood education
Tina Georgeson, EdD, early childhood and elementary education
Deborah Haskell, PhD, TEACH contributions middle level programs and early childhood education

## Assistant Professors

Khodi Kaviani, PhD, elementary education Teresa Walker, MEd, early childhood education

## Lecturers

Susan Connolly, MEd, lecturer
Leslie Elsaesser, EdD, senior lecturer Kristin Fisher, MA, senior lecturer Melanie Kingham, MEd, senior lecturer Mary Pack, EdD, lecturer

## Staff

Tina Clark, program support supervisor

## Department Information, Standards, and Requirements

Major and/or minor programs in the TEACH department include early childhood education and elementary education. Additionally the TEACH department contributes to the middle level teaching programs in mathematics (see mathematics in the catalog) and science teaching (see science education in the catalog).

In addition to a listed major and / or minor, students must maintain full admission status in the Teacher Preparation Program (see College of Education and Professional Studies in the catalog) and complete the Professional

Education Program (see Department of Education Foundations and Curriculum in the catalog) to qualify for teacher certification in the endorsable area. The early childhood education major and minor offer options in which these requirements do not apply (see descriptions below). At least 75 percent of an endorsable major or minor must be completed prior to the Professional Education Program course, EDCS 442 (Student Teaching).

All students seeking a teacher certification endorsement must maintain a 3.0 GPA or higher for the last 45 graded credits. Students must also earn a minimum grade of " C " in all required major, minor and Professional Education Program courses.

## Bachelor of Arts in Education Early Childhood Education Major

This major is intended to prepare students to become birth through grade 3 teaching specialists. As it is less than a 60 -credit major it requires a minor OR second major. Students who elect to complete this major for a teacher certification endorsement in early childhood education are strongly advised to simultaneously complete the elementary education major (see a department advisor as to how this may be effectively accomplished). Students seeking the teacher certification endorsement in early childhood education must complete all Teacher Certification and Professional Education Program requirements, which include the Professional Education Program courses (49-52 credits). Also, EDCS 442, Student Teaching, of the education program should be completed at the K-3 level. Students are advised to take EDEC 292, 232, and 332 as the initial portion of their studies. Successful completion of EDEC 493 is expected before student teaching. Exceptions may be granted by the department chair in unusual circumstances. EDEC 292 and EDEC 493 will be graded $S$ or U .

A student may complete this major without gaining entry to the Teacher Preparation Program or completing the Professional Education Program. Under such circumstances a teacher certification endorsement in early childhood will not be granted. This option exists for those individuals who wish to work with young children in an infancy/toddler/preschool setting only.

## Required Courses

EDEC 232 - Child Development . . . . . . . . . . 3
EDEC 292 - Assisting in the Child-Centered
Classrooms
EDEC 332 - Theories in Child Development 3
EDEC 333 - ECE Curriculum: Pre-
Kindergarten
EDEC 334 - ECE Curriculum: Kindergarten-
Primary

EDEC 448 - Parent Involvement . . . . . . . . . . 3
EDEC 493 - Practicum and Issues in ECE . . 15
Select from the following: . . . . . . . . . . . . . . . 10
EDEC 310 - Infant Education (3)
EDEC 347 - History and Philosophy in ECE (3)
EDEC 354 - Childhood Learning (3)
EDEC 364 - Child Safety and Well-being (3)
EDEC 396 - Individual Study (1-6)
EDEC 415 - Child Language
Acquisition (3)
EDEC 418 - Equity, Culture, and Anti-bias in ECE (3)
EDEC 421 - Play in Childhood (3)
EDEC 423 - Materials and Manipulatives in ECE (2)
EDEC 432 - Child Development Research (3)
EDEC 443 - Lab Experience Teaching in ECE (3)
EDEC 444 - Classroom Management in an ECE Classroom (3)
EDEC 447 - Curriculum Exploration (3)
Total Credits: 45

## Elementary Education Major

This major satisfies the teacher certification endorsement for elementary education. As it is less than a 60 credit major it requires a minor OR second major. There is not an option to compete this major without completing all Teacher Certification and Professional Education Program requirements, which include the Professional Education Program courses (49-52 credits).

Students who complete this major will be endorsed to teach in regular, self-contained elementary classrooms. EDLT 308, EDLT 309, EDLT 420, and EDEL 323 must be taken prior to EDCS 442 (Student Teaching).

## Required Courses

ART 330 - Art in the Elementary School . . . . 4
EDEL 323 - Teaching Elementary School Mathematics 4

EDEL 420 - Methods and Materials in the

Social Sciences - Elementary

EDLT 308 - Literacy I . . . . . . . . . . . . . . . . . . . . . 3
EDLT 309 - Literacy II . . . . . . . . . . . . . . . . . . . 5
EDLT 308 is a prerequisite for EDLT 309.
EDLT 420 - Teaching the Language Arts . . . . 4
EDLT 421 - Teaching Children's Literature 3-4 OR
ENG 422 - Teaching Young Adult
Literature (4)
HED 446 - Health Education Curriculum
for Elementary Teachers . . . . . . . . . . . . . . . 3
MUS 326 - Music in the Classroom . . . . . . . . 3
PE 334 - Physical Education Activities for the Elementary School. .3
SCED 322 - Science Education in the Elementary School .4
Department-approved electives . . . . . . . . . . 7
Total Credits: 46-47

## Early Childhood Education Minor

This minor is intended to prepare students to become birth through grade 3 teachers. Students who elect to complete this minor for a teacher certification endorsement in early childhood education are strongly advised to simultaneously complete the elementary education major (see a department advisor as to how this may be effectively accomplished). Students seeking the teacher certification endorsement in early childhood education must complete all Teacher Certification and Professional Education Program requirements, which include the Professional Education Program courses (49-52 credits). Also, EDCS 442, Student Teaching, of the education program should be completed at the K-3 level. Students are advised to take EDEC 292 and 232 or 332 as the initial portion of their studies. EDEC will be graded $S$ or U .

A student may complete this minor without gaining entry to the Teacher Preparation Program or completing the Professional Education Program. Under such circumstances a teacher certification endorsement in early childhood will not be granted. This option exists for those individuals who wish to work with young children in an infancy/toddler / preschool setting only.

## Required Courses

EDEC 232 - Child Development . . . . . . . . . . . 3 OR
EDEC 332 - Theories in Child
Development (3)
EDEC 292 - Assisting in the Child-Centered
Classrooms
EDEC 333 - ECE Curriculum: Pre-
Kindergarten . 3
OR
EDEC 334 - ECE Curriculum:
Kindergarten- Primary (3)
EDEC 448 - Parent Involvement 3

Select from the following electives ....... 6
EDEC 310 - Infant Education (3)
EDEC 347 - History and Philosophy in ECE (3)
EDEC 354 - Childhood Learning (3)
EDEC 396 - Individual Study (1-6)
EDEC 415 - Child Language Acquisition (3)
EDEC 421 - Play in Childhood (3)
EDEC 423 - Materials and Manipulatives in ECE (2)
EDEC 432 - Child Development Research (3)
EDEC 443 - Lab Experience Teaching in ECE (3)
EDEC 444 - Classroom Management in the ECE Classroom (3)
EDEC 447 - Curriculum Exploration (3)
SOC 343 - Child Abuse (5)
Department-approved electives by advisement

## Middle Level Mathematics Teaching Minor

See program description under mathematics in the catalog

## Middle Level Science Teaching Minor

See program description under science education in the catalog.

## Early Childhood Education Courses

EDEC 232. Child Development (3).
Developmental characteristics of children with emphasis from conception to eight years. Includes observation techniques. EDEC 232 and FS 232 are equivalent courses. Students may not receive credit for both.
EDEC 292. Assisting in the Child-centered Classrooms (5). Students work with children in ECE classrooms, learning and practicing the fundamentals of guidance, curriculum implementation, and maintaining the physical environment. Students participate in a two-hour seminar each week. May be taken twice for credit with the permission of the division head. Grade will be S or U .
EDEC 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDEC 298. Special Topics (1-6).
EDEC 299. Seminar (1-5). May be repeated.
EDEC 310. Infant Education (3). Needs and characteristics of infants and toddlers. Enrichment opportunities and effects on development. Implications for persons in care-giving roles.
EDEC 332. Theories in Child Development (3). Comparison of major theories. EDEC 332 and FS 332 are equivalent courses.
EDEC 333. ECE Curriculum: Prekindergarten (3). Historical influences and knowledge of child development, psychological theories, and contemporary models as bases for curriculum development and implementation in prekindergarten settings. Prerequisites: EDEC 292 and EDEC 232 or 332.
EDEC 334. ECE Curriculum: KindergartenPrimary (3). Historical influences and knowledge of child development/ psychological theories/contemporary models as a basis for curriculum development and implementation in kindergarten through primary settings. Prerequisite: EDEC 232 or 332 or PSY 314.
EDEC 347. History and Philosophies of Early Childhood Education (3). Focuses on select historical events and figures that have shaped the pedagogical and philosophical development of the field of early childhood education. Prerequisite: one psychology course.

EDEC 354. Childhood Learning (3). Origins and applications of learning/ developmental theory emphasizing personalized, childcentered education. Prerequisite: EDEC 232 or 332.
EDEC 364. Child Safety and Well-being
(3). Origins and applications of learning/ developmental theory emphasizing personalized, child-centered education and wellness practices. Prerequisites: EDEC 232 or EDEC 332.
EDEC 396. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.

## EDEC 398. Special Topics (1-6)

EDEC 415. Child Language Acquisition (3). Language acquisition birth through eight years; aspects of phonological, grammatical, and semantic development in a natural language environment. Projects include transcription and grammatical analysis of a young child's speech. Prerequisite: a course in child or human development (e.g., EDEC/FS 232, or EDEC/FS 332, or PSY 314) or introductory linguistics (e.g., ANTH/ ENG 180) or permission of instructor.
EDEC 418. Equity, Culture, and Anti-bias in ECE (3). Principles of equity, cultural relevancy, and anti-bias approaches appropriate for programs serving children from birth through eight years of age.
EDEC 421. Play in Childhood (3). Definitions, developmental aspects, and curricular implications of play. Prerequisite: either EDEC 232 or 332 or permission of instructor.
EDEC 423. Materials and Manipulatives in ECE (2). Strategies are investigated for developing games and learning opportunities through the use of classic ECE manipulatives. The potential for fostering mathematical teaching knowledge and skills is emphasized.
EDEC 432. Child Development Research (3). The influence of family patterns and interaction on infant and child development; current research. Prerequisite: FS/EDEC 232 or permission. EDEC 432 and FS 432 are equivalent courses. Students may not receive credit for both
EDEC 443. Lab Experience/Teaching ECE (3). Assist ECE professors in teaching those courses which involve outside observation or participation. Prerequisite: permission of the director.
EDEC 444. Classroom Management in an ECE Classroom (3). This course provides students the opportunity to explore, apply, synthesize, and evaluate techniques and strategies for creating positive classroom climates through organization and management techniques.
EDEC 447. Curriculum Exploration (3). Guided exploration of curriculum or guidance needs as identified by student self-evaluation. Consistency with the student's personal philosophy and child development will be emphasized. Prerequisite: EDEC 493 or permission of the director.

EDEC 448. Parent Involvement (3). Parentchild and parent-school interactions as educational and developmental aids. Emphasis upon the school's use of the home and community for educational purposes.
EDEC 465. Directing ECE Programs (3). Budgeting, governmental requirements, staffing, nutritional and health care, parental involvement, community and agency liaison, and the integration of developmental/educational curriculum. Prerequisite: permission of the director.
EDEC 489. Issues in Early Childhood Education (3).
EDEC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be $S$ or U.
EDEC 493. Practicum and Issues in ECE (6-15). Prerequisites: EDEC 333 and 334 or permission. Grade will be $S$ or $U$.
EDEC 494. Advanced Practicum (3-10). A course designed to meet special needs as determined by the student, his/her advisor and the director. Prerequisite: EDEC 493 or permission of the chair of the Department of Curriculum and Supervision. Grade will be S or U .
EDEC 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDEC 498. Special Topics (1-6).
EDEC 499. Seminar (1-5). May be repeated.

## Elementary Education Courses

EDEL 296. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDEL 298. Special Topics (1-6).
EDEL 299. Seminar (1-5). May be repeated.
EDEL 323. Teaching Elementary School Mathematics (4). Methods and materials for helping children learn mathematics with emphasis on the use of manipulatives, problem solving, cooperative learning, and communication. Prerequisites: Math 164 and MATH 250 or permission of major coordinator/advisor.
EDEL 396. Individual Study (1-6).


Prerequisite: permission of instructor. May be repeated.
EDEL 420. Methods and Materials in the Social Sciences - Elementary (3).
EDEL 468. Teaching Problem-solving Techniques for Upper Elementary and Middle School Mathematics (3). Methods and materials for helping the upper elementary/middle school (fifth through eighth grade) student learn mathematics with emphasis on appropriate manipulatives, teaming, problem solving, and communication strategies. Prerequisites: EDEL 323, EDF 301, EDCS 311, and admission to Teacher Preparation Program.
EDEL 477. Middle School Students and Their Environment (4). An in-depth exploration of the developmental learning needs of fifth through eighth grade students and the physical, social, and management systems utilized by middle level education programs. The major focus of this course is to create developmentally appropriate classroom practices that merge educational developmental needs. Prerequisites: EDF 301, PSY 314, and admission to the Teacher Certification Program.
EDEL 478. Developmentally Responsive Curriculum in the Middle Grades (3). An in-depth exploration of research-based middle school curriculum that meets the development needs of young adolescents. This course focuses on middle school curriculum and its process by which it is designed, integrated, and evaluated. Prerequisite: EDEL 477 or by permission of the instructor
EDEL 482. Instruction and Assessment for the Middle Level: Grades Five through Eight (3). This course provides the future middle level educator with comprehensive skills in instructional methods, curriculum alignment, lesson development, and assessment methodology within the middle school environment. Prerequisites: EDF 301, PSY 314, EDCS 311, and admission to Teacher Certification program.
EDEL 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
EDEL 492. Practicum. (1-15). Experience working in educational settings. Arrangements are made through the office of student teaching. Prerequisite: permission from Teacher Preparation Program. Grade will be S or U. Students may accumulate no more than 15 hours of practicum credit.
EDEL 496. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDEL 498. Special Topics (1-6).
EDEL 499. Seminar (1-5). May be repeated.

# COLLEGE OF THE SCIENCES 

## Administration and Organization

Dean: Kirk A. Johnson, PhD (Dean Hall, room 130)

Associate Dean: David M. Darda, PhD (Dean
Hall, room 130
509-963-1866
Fax: 509-963-1977
www.cwu.edu/~cots/
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 and coursework at the graduate level, 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 preparation programs, offering bachelor's 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.

## Departments

All departments offer baccalaureate degree programs and, in some cases, minors and master's degrees. In addition to consulting department/ program headings in this catalog, students are encouraged to contact individual departments and program offices directly.
Anthropology and Museum Studies:
Kathleen Barlow, PhD
Dean Hall, room 357
509-963-3201
Biological Sciences:
Paul James, PhD
Science Building, room 338
509-963-2731
Chemistry:
JoAnn Peters, PhD
Science Building, room 302
509-963-2811
Computer Science:
James Schwing, PhD
Hebeler Hall, room 219
509-963-1495

Geography:
James Huckabay, PhD
Dean Hall, room 301
509-963-1188
Geological Sciences:
Wendy Bohrson, PhD
Lind Hall, room 220
509-963-2701
Law and Justice:
Charles Reasons, LLB
Psychology Building, room 463
509-963-3208
Mathematics:
Aaron Montgomery, PhD
Bouillon Hall, room 108
509-963-2103
Physics:
Michael Jackson, PhD
Lind Hall, room 201A
509-963-2727
Political Science:
Todd Schaefer, PhD
Psychology Building, room 414
509-963-2408
Psychology:
Stephanie Stein, PhD
Psychology Building, room 421
509-963-2381
Science Education:
Martha Kurtz, PhD
Science Building, room 107
509-963-2929
Sociology:
Hong Xiao, PhD
Farrell Hall, room 409
509-963-1305

## Interdisciplinary Programs

These programs offer specialized coursework, interdisciplinary baccalaureate majors or minors, master's degrees or research, and public service functions related to instruction.
American Indian Studies:
Delores Cleary, PhD
Farrell Hall, room 409
509-963-2172
Center fo Excellence in Science and
Mathematics Education:
Martha Kurtz, PhD
Science Building, room 107
509-963-2929
Energy Studies:
Holly English
Dean Hall, room 324
509-963-1159
Environmental Studies:
Greg Brown, PhD
Dean Hall, room 322
509-963-3699
Ethnic Studies:
Delores Cleary, PhD
Farrell Hall, room 409
509-963-2172
Museum of Culture and Environment:
Bill Wood, PhD
Dean Hall, room 334
509-963-3209

Primate Behavior and Ecology Program: Lori Sheeran, PhD
Dean Hall, room 335
509-963-1434
Public Policy:
Rex Wirth, PhD
Psychology Building, room 482
509-963-2353
Resource Management Program:
Karl Lillquist, PhD
Dean Hall, room 319
509-963-1184
Steve Hackenberger, PhD
Dean Hall, room 349
509-963-3224
Science Honors:
Audrey Huerta, PhD
Lind Hall, room 118-A
509-963-2718
Science Talent Expansion Program (STEP): Wendy Bohrson, PhD
Lind Hall, room 101
509-963-2835
Women's Studies:
Cynthia Coe, PhD
Language and Literature Bldg., room 318 509-963-2008

## Affiliated Centers and Institutes

Center for Spatial Information: Anthony Gabriel, PhD Dean Hall, room 320 509-963-1166
Center for the Environment
Greg Brown, PhD
Dean Hall, room 322 509-963-3699
Central Washington Archaeological Survey, Anthropology:
Patrick McCutcheon, PhD
Dean Hall, room 340
509-963-2075
Steve Hackenberger, PhD
Dean Hall, room 349
509-963-3224
Chimpanzee and Human Communication
Institute (CHCI):
Deborah Fouts, MS
Psychology Research Center 509-963-2244
Community Counseling and Psychological
Assessment Center:
Jeffrey Penick, PhD
Psychology Building, room 461
509-963-3669
Cultural Resources:
Pat Lubinski, PhD
Dean Hall, room 338
509-963-3601
Geodesy Laboratory and Pacific
Northwest Geodetic Array (PANGA)
Data Analysis Facility:
Tim Melbourne, PhD
Hebeler Hall, room 110A 509-963-2799
Health Career Education Resources: Tracy Andrews, PhD
Dean Hall, room 351
509-963-3220

School Psychology Services:
Eugene Johnson, EdD
Psychology Building, room 121
509-963-2501

## ANTHROPOLOGY AND MUSEUM STUDIES DEPARTMENT

Ellensburg
Dean Hall, room 357A

509-963-3201
Fax: 509-963-3215
www.cwu.edu / ~anthro
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

## Chair

Kathleen Barlow, PhD, Dean Hall, room 356

## Professors

John A. Alsoszatai-Petheo, PhD, biological anthropology
Tracy J. Andrews, PhD, sociocultural anthropology, ethnicity, medical and ecological anthropology, gender, Native North America
Kathleen Barlow, PhD, psychological anthropology, learning and culture, museum anthropology, art and aesthetics, resource management
Anne S. Denman (emeritus), PhD, American culture, intercultural issues
Steven Hackenberger, PhD, archaeology, cultural resource management, North America and Caribbean
William C. Smith (emeritus), PhD, archaeology, museum studies, comparative world prehistory

## Associate Professors

Loran E. Cutsinger, PhD, cultural anthropology, informal economy, gender, globalization, transnationalism, British 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

Mary Lee Jensvold, PhD, primate behavior and ecology, communication, CHCI
Joseph Lorenz, PhD, biological anthropology, anthropologist genetics, DNA, ancient
DNA, genetics of American Indians, North America
Bill W. Warner Wood, PhD, political ecology and environmentalism, museum studies, practice theories and qualitative methodologies, Greater Mexico, and Latin America

## Staff

Penelope Anderson, secretary senior

## Department Information

Anthropology presents an integrated perspective on the cultural and biological nature of humans. Anthropologists study present and past human diversity through classroom, laboratory and field studies in cultural and biological anthropology, including archaeology, linguistics, ethnology, and applied anthropology.

Students interested in major and minor programs should contact the department office as soon as possible for further information, application forms, and assignment of an advisor. Anthropology majors are expected to meet with their advisors at least once a quarter.

Students need a GPA of 2.5 or higher to be admitted to the department.

## Special Programs

Reflecting the broad nature of anthropological study, the department directly sponsors or is affiliated with a wide range of on- and off-campus options to broaden classroom experiences. Further information about the following programs is available through the anthropology department office:

- Museum Studies program, offering coursework, field experiences, and projects with local and regional museums
- Central Washington Archaeological Survey (CWAS), a service, research, and public information facility with special emphasis in the Northwest
- Bachelor of science in primate behavior and ecology, an interdisciplinary program providing undergraduate training in method and theory of primatology as basis for research, laboratory, and field experience
- Master of science in resource management, offering an integrated program in natural and cultural resource management, including anthropology classes in cultural resource management, and historic preservation
- Master of science in primate behavior, an interdisciplinary program in primatology, including courses in the history, field and lab methods, and current topics and issues in the discipline
- Macintosh and PC computer labs housed in Farrell Hall
- Center for Spatial Information, providing a range of Geographic Information System (GIS) tools for analysis of social and natural science data
- Summer workshops and field schools, including survey archaeology in eastern Washington, primate and biodiversity studies in China, and workshops in forensic anthropology
- Study abroad opportunities coordinated through the CWU Office of International Study and programs
- Departmental honors program encourages individualized research and study in a sub-area of anthropology. It is open to junior and senior students with an anthropology major GPA of 3.0 or better
- Anthropology Student Association, an active student group which sponsors academic and social events related to the discipline.


## Anthropology Core Requirements

ANTH 110 - Introduction to Biological Anthropology

ANTH 110LAB - Biological Anthropology
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . . 1

ANTH 120 - Introduction to Archaeology . . 5
ANTH 130 - Introduction to Cultural
Anthropology . . . . . . . . . . . . . . . . . . . . . . . 5
ANTH 180 - Introduction to Linguistics . . . . 5 ANTH 301 - Anthropology: Principles and Assessment

Anthropology Core Total Credits: 23

## Bachelor of Science Anthropology Major

This major prepares students for graduate work in anthropology or for careers in anthropology and closely related fields. Electives are chosen in consultation with an advisor to lead into specialization in areas such as: ethnology, linguistics, archaeology, environmental studies, or biological anthropology. Students in this major must have course schedules approved quarterly by their departmental advisors.

## Required Courses

Anthropology Core Requirements . . . . . . . . 23
ANTH 451 - History and Theory of Anthropology4

ANTH 458 - Senior Comprehensive
Survey
. 4
ANTH 499 - Seminar . . . . . . . . . . . . . . . . . . 3-4
Select a minimum of one 3-or 4-credit course in each of the following areas. . . 24
Biological Anthropology (ANTH 311, 312, 313, 315)
Archaeology (ANTH 321, 322, 323, 324, 325)

Ethnology (ANTH 333, 336, 354, 355, 356, 357, 358, 359)

Ethnography (ANTH 341, 342, 343, 344, 345, 346, 347)
Linguistics (ANTH 381, 382*, 384)
*Students planning on graduate school are strongly advised to elect 382
Select one of the following Methods
courses . . . . . . . . . . . . . . . . . . . . . . . . . . . .3-4
ANTH 421 - Archaeological Theory (4)
ANTH 442 - Comparative Ethnology (4)
ANTH 444 - Ethnographic Field Methods (4)
ANTH 483 - Sociolinguistics (4)
ANTH 485 - Method and Theory in Biological Anthropology (1-8) OR
ANTH 488 - Advanced Research in Cultural Anthropology (1-8)
Select one of the following . . . . . . . . . . . . . 4
ANTH 491 - Workshop (1-6)
ANTH 493 - Anthropological Field Experience (1-8)
ANTH 496 - Individual Study (1-6)

## Electives in Anthropology and

related fields
.8-10
(Department-approved electives must include a course in statistics.)

Total Credits: 75

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

## Bachelor of Arts

## Anthropology Major

This liberal arts and sciences major provides background to prepare students for any vocation, in that a measure of achievement in all careers is success in human relationships. The major is also consistent with employment in a variety of business, government, and social service areas.

## Required Courses

Anthropology Core Requirements . . . . . . . 23
Select 300 level courses from at least three
subfields
Archaeology, Cultural Anthropology,
Linguistics, Biological Anthropology
Anthropology Theory and Method
(400 level)
(Must include an approved
ANTH 499 Seminar)
ANTH 459 - Senior Colloquium ........... 3
Department-approved electives . . . . . . . . . . . 4
Total Credits: 61

## Museum Studies Specialization

The museum studies specialization prepares the student for employment in museum settings. Electives may be selected in accordance with student career
goals and interests, to include areas such as anthropology, art, biology, business administration, communication, geography, geology, history, etc. The specialization must be supervised and approved by the department chair.

## Required Courses

Anthropology Core Requirements ....... 23
ANTH 360 - Introduction to Museum Studies 4
ANTH 361 - Museum Exhibit Design4
ANTH 362 - Museum Curation and
Management ..... 4
ANTH 490 - Cooperative Education ..... 10
ANTH 499 - Seminar .....  2
Department-approved electives ..... 14
(Must include at least 4 credits in Theory-Method at the 400 level)

Total Credits: 61

## Bachelor of Arts <br> Anthropology 45-Credit Major

This 45 -credit major must be accompanied by a major in a discipline related to anthropology. The program will consist of coursework focused on areas related to the dual major and must be designed in close consultation with an anthropology advisor. A program proposal must be approved prior to admission to this BA program.

## Required Courses

Introductory (100 level)
Intermediate (300 level) . . . . . . . . . . . . . . 15-20
(Must include ANTH 301)
Theory and Method (400 level)10
(ANTH 459 recommended)
Total Credits: 45

## Anthropology Minor

## Required Courses

Select three from the following. . . . . . . 15-16
ANTH 110 - Introduction to Biological Anthropology (5)
AND
ANTH 110LAB - Biological Anthropology Laboratory (1)
ANTH 120 - Introduction to Archaeology (5)

ANTH 130 - Introduction to Cultural Anthropology (5)
ANTH 180 - Introduction to Linguistics (5)
Department-approved electives include ANTH 324 or 347, and ANTH 355 or 381 within the 10 credits of electives. ANTH 381 suggested for those enrolled in Teaching English as a Second Language.)

Total Credits: 25-26

## Museum Studies Minor

The museum studies minor prepares students for entry-level, museum-related employment and/ or for graduate work in museum studies. To be eligible for admission to this program, students should be enrolled in a related major (e.g., anthropology, art, biology, geology, geography, history, leisure services, science education, etc.).

Approval by the anthropology
department chair is also required.

## Required Courses

One of the following $\qquad$
ANTH 107 - General Anthropology (5)
ANTH 110 - Introduction to Biological Anthropology (5)
ANTH 120 - Introduction to Archaeology (5)
ANTH 130 - Introduction to Cultural Anthropology (5)
ANTH 360 - Introduction to Museum
Studies.
ANTH 361 - Museum Exhibit Design . . . . . . 4
ANTH 362 - Museum Curation and
Management . . . . . . . . . . . . . . . . . . . . . . . . . 4
ANTH 490 - Cooperative Education . . . . . . . 6
Department-approved electives . . . . . . . . . . . 7
Total Credits: 30

## Non-profit Organization Administration Minor

The minor in non-profit organization administration is an interdisciplinary minor designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The minor provides practical, hands-on skills as well as discussion of the issues facing nonprofit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/ Fund-raising . . . . 3
COM 470 - Applied Public Relations (5) OR
COM 475 - Public Relations and
Advertising Management (4). 4-5
Choose one of the following:. . . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)
Areas of Interest
Choose any of the following for a total of at least 9 credits. . . . . . . . . . . . . . . .
ANTH 360 - Introduction to Museum Studies (4)

ANTH 361 - Museum Exhibit Design (4)
COM 370 - Writing for Public
Relations (4)
COM 487 - Public Relations Professional
Seminar (3)
MUS 482 - Music Business (3)
TH 350 - Theatre Management (3)
TH 351 - Theatre Management (3)
TH 360 - Stage Management (3)
Total Credits: 29-30

## Non-profit Organization Administration Certificate

The certificate in non-profit organization administration is an interdisciplinary approach designed to provide an understanding of the organization, financing, and management issues in non-profit organizations. It is designed to complement majors in artistic, advocacy, and educational endeavors. The courses provide practical, hands-on skills as well as discussion of the issues facing non-profit organizations.

## Required Courses

ACCT 301 - Financial Accounting Analysis . 5
COM 312 - Introduction to Non-profit
Leadership . . . . . . . . . . . . . . . . . . . . . . . . . . 3
COM 427 - Grant Writing/ Fund-raising . . . . 3
COM 470 - Applied Public Relations (5)
OR
COM 475 - Public Relations and
Advertising Management (4). . . . . . . . . . . 4-5
Choose one of the following:. . . . . . . . . . . . . . 5
ANTH 490 - Cooperative Education (Internship) (5)
ART 490 - Cooperative Education (Internship) (5)
COM 490 - Cooperative Education (Internship) (5)
MUS 490 - Cooperative Education (Internship) (5)
TH 490 - Cooperative Education (Internship) (5)

Total Credits: 20-21

## Anthropology Courses

ANTH 107. General Anthropology (5).
Human biological and cultural adaptations: survey of concepts, methods, and perspectives on past and present.
ANTH 110. Introduction to Biological Anthropology (5). A survey of the history, philosophy, and theory of biological anthropology including biological relationships to other primate forms, the fossil record, and evolutionary adaptations. ANTH 110LAB should be taken concurrently.
ANTH 110LAB. Biological Anthropology
Laboratory (1). Practical laboratory experience with data in human osteology, comparative primate anatomy, and ethology, forensic anthropology, genetics, and the fossil record of human evolution. Pere- or co-requisite: ANTH 110. Two hours
laboratory per week. ANTH 110LAB required for anthropology majors and minors; optional for students completing breadth requirements of General Education. Formerly ANTH 110.1. Students may not receive credit for both.
ANTH 120. Introduction to Archaeology (5). Introduction to the concepts, methods, and development of archaeology.
ANTH 130. Introduction to Cultural Anthropology (5). Understanding human cultures: concepts, methods, and basic data involved in the comparative study of human cultural adaptations.
ANTH 180. Introduction to Linguistics (5). Background, development, and relation to other fields of study. ANTH 180 and ENG 180 are equivalent courses. Students may not receive credit for both.
ANTH 215. Concepts in GIS (3). Basic principles and uses of Geographic Information Systems (GIS). Practice with the use of GIS in solving land management and evaluation problems. Two hours lecture and four hours lab per week. ANTH 215 and GEOG 215 are equivalent courses. Students may not receive credit for both.
ANTH 296. Individual Study (1-6). Prerequisite: permission of instructor.
ANTH 298. Special Topics (1-6).
ANTH 301. Anthropology: Principles and Assessment (2). Principles and assessment course for majors: current topics and careers, research, funding; development of assessment portfolios and individual program plans. Required for all BA and BS anthropology majors at admission.
ANTH 309LAB. Skeletal Analysis and Comparison (2). Upper-division, introductory laboratory course which provides critical visual and hands-on exposure essential to students planning to continue with coursework in fossil primate studies, human evolution, and other applications such as forensic anthropology. Prerequisite: ANTH 110LAB or permission of instructor.
ANTH 310. Research/Laboratory in Biological Anthropology (1-2). Laboratory research analysis of biological anthropology materials. May be taken concurrently with and as a supplement to other 300-level courses in biological anthropology. Prerequisite: previous college work in biological anthropology or other natural sciences and permission of instructor. The course may be repeated for a cumulative maximum of 8 credits. No more than 10 credits of ANTH 310 and 485 are allowed to fulfill BA or BS requirements.
ANTH 311. Advanced Biological Anthropology: Principles of Human Evolution (4). Analysis and interpretation of major principles of modern biological anthropology from an evolutionary perspective: genetics, population genetics, ecology, comparative anatomy and human paleontology. Prerequisites: ANTH 110 and 110LAB or permission of the instructor.
ANTH 312. Human Origins: The Fossil
Evidence (4). The fossil record of human
and protohuman forms. Basic data and interpretation. Three hours lecture and two hours laboratory per week.
ANTH 313. Primate Social Behavior (4). Survey of field studies of nonhuman primates relevant to the study of human social systems and adaptation. Prerequisite: ANTH 107 or 110 or 130 or BIOL 112; or permission of instructor.
ANTH 314. Human Variation and Adaptation in Living Populations (4). Survey of genetic, morphological and physiological variability of living human populations and their biological source mechanisms. Current population dynamics are used to project future alternatives for change.
ANTH 315. Forensic Skeletal Analysis (4). A survey of the human skeleton and techniques of human skeletal analysis. Identification of age, sex, and other traits in modern and extinct populations.
ANTH 320. Research/Laboratory in Archaeology (2). Analysis of archaeological materials. Prerequisite: ANTH 120 or permission of instructor. May be repeated, with permission of department chair for a total of not more than 6 credits. Minimum of 4 hours laboratory per week. No more than 10 credits of ANTH 320 and 486 allowed to fulfill BA or BS requirements.
ANTH 321. Archaeological Methods
(4). Introduction to methods used by archaeologists, with an emphasis on laboratory methods for analysis of chipped stone, ceramics, faunal remains, and other archaeological materials.
ANTH 321Lab. Archaeological Methods Laboratory (2). Hands-on application of typical methods used in archaeological investigations, with an emphasis on laboratory techniques for studying chipped stone, ceramics, faunal remains, and other archaeological materials. ANTH 321 (Pre- or Co-requisite)
ANTH 322. World Prehistory (4). Old and New World prehistory from late Pliocene to the early historic period, including the ecology and development of huntinggathering, agriculture, and state-level societies. ANTH 322 and HIST 322 are equivalent courses. Students may not receive credit for both.
ANTH 323. Field Archaeology (3-6). Identification, mapping, and recording of archaeological sites; techniques of excavation. Prerequisite: ANTH 120 or permission. Grade will be $S$ or $U$. May be repeated for credit with permission of chair.
ANTH 324. North American Archaeology
(4). Prehistoric cultures of North America, with emphasis on adaptation to changing environments.
ANTH 325. Prehistory of the Pacific Northwest (4). Prehistoric cultures of Washington State and adjoining regions.
ANTH 333. Culture \& Marriage (4). The reciprocal relationships between the biophysical and cultural components in
mating, nurturing, and sexual access. Crosscultural patterns in marriage. ANTH 333 and FS 333 are equivalent courses. Students may not receive credit for both.
ANTH 341. Native American Cultures of the Pacific Northwest (4). Ecological settings and cultural adaptation of Pacific Northwest Native Americans in historical and contemporary contexts. Culture change and continuity, language, religion, resource management, and tribal sovereignty.
ANTH 342. Hispanic Cultures of the
Western U.S. (4). This course provides an overview of Hispanic cultures in the American Southwest, California, and the Pacific Northwest. Culture change and maintenance through language, religion, and an economic resource base are highlighted.
ANTH 344. Cultures of Asia (4). Setting and cultural adaptation of the peoples of Asia. Representative groups from cultural regions of E. Asia and Central/Inner Asia.
ANTH 345. Cultures of Southeast Asia and Oceania (4). Setting and cultural adaptation of the peoples of Southeast Asia and Oceania.
ANTH 346. Cultures of Latin America and the Caribbean (4). Survey of anthropological research on cultures of Latin America and the Caribbean in historical and contemporary contexts.
ANTH 347. Native American Cultures of North America (4). Ecological settings and cultural adaptations of North American Native Americans in historical and contemporary contexts. Culture change and continuity, language, religion, resource management, and tribal sovereignty.
ANTH 351. Visual Anthropology (4). Provides methodological, theoretical and practical background to produce and evaluate imagery in films and video; guidelines and practice of image presentation/manipulation in anthropological and social contexts. Prerequisites: ANTH 130 or ART 225 or COM 321 or 330 or by permission of the instructor. ANTH 351 and COM 351 are equivalent courses. Students may not receive credit for both.
ANTH 354. Anthropology of Religion
(4). A cross-cultural analysis of religion, cosmology, and world view.
ANTH 355. Culture, Person, Self (4). A cross-cultural analysis of the relationship of individuals to cultural beliefs and practices.
ANTH 356. Gender Roles in Cross-Cultural Perspective (4). Bio-cultural factors affecting human gender roles.
ANTH 357. Medical Anthropology: CrossCultural Perspectives on Health and Healing (4). Emphasizes cultural and biological factors influencing health maintenance in human populations and cross-cultural perspectives on illness, healing, and the provision of health care.
ANTH 358. Culture and Politics in a Global Economy (4). Comparative perspectives on cultural processes of change within the global economic system.

## ANTH 359. Survey of Music in Cross-

Cultural Perspectives (3). An introduction to ethnomusicology: the cultural context of music with emphasis on Africa, Asia, Native North and South America, and Oceania. ANTH 359 and MUS 359 are equivalent courses. Students may not receive credit for both.
ANTH 360. Introduction to Museum Studies (4). Concepts relating to museums in society: history, ethics, philosophy, administration, legislation, and education.
ANTH 361. Museum Exhibit Design (4).
Principles of design applied to visual presentation of material culture, ideas, and concepts through educational exhibits.

## ANTH 362. Museum Curation and

Management (4). Application of techniques of environmental security, restoration, and preservation in the management of museum collections.
ANTH 381. Language in Culture (4).
Language as a culture trait. Influence of language on other human institutions. Includes psycholinguistics, sociolinguistics, ethnographic semantics, and multilingualism in its sociocultural setting.
ANTH 382. Descriptive Linguistics (4).
Introduction to the basic concepts and mechanics of formal linguistic analysis.
ANTH 384. Language and Gender (4). This course is designed to guide students to explore the active and rapidly expanding field of gender studies and language research dealing with how biological and cultural awareness of sexes are reflected in speech. ANTH 384 and WS 384 are equivalent courses. Students may not receive credit for both.
ANTH 398. Special Topics (1-6).
ANTH 404. Intermediate GIS (5). Applied concepts, principles, and operation of fundamental GIS applications, including raster-vector data models, topology, digitizing, and various analytical techniques such as overlay, buffers, and Boolean queries. Lecture and practical applications. Prerequisite: GEOG 303/403 or permission. ANTH 404, GEOL 404 and GEOG 404 are equivalent courses. Students may not receive credit for more than one.
ANTH 410. Biological Anthropology:
Theoretical and Research Issues
(4). Exploration of the theoretical underpinnings of biological anthropology their expression in current research topics in the field, and the transition from earlier approaches to their current implementation. Seminar structure. Prerequisites: ANTH 110 plus 5 upper-division credits in biological anthropology or permission of instructor. May be repeated for a total of 8 credits.
ANTH 411. Primate Conservation (4). A seminar that focuses on conservation issues of particular relevance for nonhuman primates, including deforestation, bush-meat hunting, and pet trade, and on conservation strategies, including reintroduction, captive management, and
ecotourism. Prerequisites: ANTH 110, ANTH 313, or permission of the instructor. ANTH 411 and PRIM 511 are equivalent courses
ANTH 412. Long-term Primate Studies (4). A survey of major long-term field research projects including apes, monkeys, and lemurs; comparisons across sites and results of long-term observation of non-human primates. Prerequisite: ANTH 313.
ANTH 414. Forensic Anthropology: Cold Case Analysis (6). The course explores the recovery and examination of skeletal remains through practical experience in the recovery of buried remains. Students will plan, manage, and conduct a forensic skeletal analysis of a cold case. Findings will be presented. Prerequisites: ANTH 110, ANTH 315, ANTH 310, and permission of the instructor.
ANTH 415. Forensic Anthropology:
Theoretical and Applied Issues (4). An in-depth and critical analysis of journal articles pertaining to forensic anthropology, osteology, and archaeology. An examination of archaeological techniques that can be adapted to forensic and medico-legal investigations. Prerequisites: ANTH 110, ANTH 315, ANTH 310, and permission of the instructor.
ANTH 416. Pongid Behavior (4). An overview of Pongid (chimpanzee, gorilla, and orangutan) physiology, social and developmental behaviors in natural and laboratory conditions. Lab fee of \$20 required. Prerequisite: ANTH 313. ANTH 416 and PRIM 516 are equivalent courses. Students may not receive credit for both.
ANTH 417. Advanced GIS (4). Advanced GIS principles, techniques, analysis, and application. Lecture and practical handson experience. Applied experience using GIS software. Prerequisite: GEOG 404, ANTH 404, or GEOL 404 or permission of instructor. ANTH 417, GEOL 417, and GEOG 417 are equivalent courses. Students may not receive credit for more than one.
ANTH 418. Primate Evolution (4). An overview of primate evolution from the earliest forms to modern representatives. Fossils, paleoenvironments, adaptive radiations, and evolutionary trends among the primates. Prerequisites: ANTH 110, ANTH 313.
ANTH 421. Archaeological Theory (4). Discussion of research problems in data collection, analysis, and interpretation. Prerequisite: ANTH 120, or permission.
ANTH 425. Zooarchaeology (4). Mammalian osteology and methods in the analysis of animal bones from archaeological sites. Prerequisites: ANTH 120 and either ANTH 110LAB or BIOL 112, or permission.
ANTH 426. Stone Tool Analysis (4). The theory, method, and technique of stone tool analysis are presented so that students can undertake a research project analyzing a stone tool assemblage. Prerequisite: ANTH 120 or ANTH 323 or permission of instructor.

ANTH 427. Environmental Archaeology
(4). Analyses of sediments and plant and animal remains from archaeological sites are used to explore relationships between humans and their environments. Case studies combine natural and physical sciences to study long-term change in landscapes and ecosystems. Prerequisites: ANTH 120 or GEOG 107 or permission of the instructors. ANTH 427/527 and GEOG 427 / 527 are equivalent courses; students may not receive credit for both. Graduate credit requires an additional research paper to be specified in syllabus.
ANTH 440. Ecology and Culture (4). Investigation into interdependent environmental and human cultural systems. Traditional agroecologies and subsistence strategies; contemporary problems of resource management, social equity, political ecology, and sustainable development. ANTH 440, GEOG 440, and REM 540 are equivalent courses. Student may not receive credit for both.
ANTH 444. Ethnographic Field Methods (4). Methods used in ethnographic fieldwork.
ANTH 445LAB. Visual Anthropology
Lab (2). A lab-oriented course providing practical experience in basic ethnographic film approaches. Prerequisites: ANTH/ COM 351 or permission of instructor and ANTH, Film and Video Studies, or Resource Management (REM, grad) major / minor status.
ANTH 446. Anthropology of Globalization
(4). Critically examines current theories of globalization in anthropology. Course includes selected enthnographic research on topics including global flows of people, material, ideas, identities, global political structures, and local accommodation and resistance.
ANTH 449. Contemporary Native American Cultures and Issues (4). Analysis of contemporary Native North American cultures and issues, including tribal sovereignty, resource management, education, religion, economic, and health status, and cultural continuity, and adaptation. Prerequisites: ANTH 341 or ANTH 347 or SOC 366 or AIS 103 or permission of the instructor. SOC 449 and ANTH 449 are cross-listed courses. Students may not receive credit for both.
ANTH 451. History and Theory of Anthropology (4). Content and developmental history of anthropological theories and methods. Prerequisite: 20 hours of ANTH or permission.
ANTH 458. Senior Comprehensive Survey (4). Advanced comprehensive survey of the field of anthropology as to its content and intent. Specifically designed for majors preparing for graduate work. Prerequisite: ANTH major or permission.
ANTH 459. Senior Colloquium (3). A capstone seminar for the Anthropology BA. The seminar reinforces interdisciplinary preparation and knowledge in one field of anthropology (linguistics, ethnology, archaeology, or biological anthropology).

ANTH 480. Survey of Linguistics (4). Linguistic concepts and the relation between linguistics and other fields of study. Open to seniors and graduate students only. ANTH 480 and ENG 480 are equivalent courses. Students may not receive credit for both.
ANTH 483. Sociolinguistics (4). Concepts and methods of sociolinguistic analysis in first and second languages. Will examine differences among cultures in the relationship between language usage and inequality. Prerequisite: ANTH/ENG 180 or 480, ANTH 381, or FNLA 481 or departmental approval. ANTH 483 and FNLA 483 are equivalent courses. Students may not receive credit for both.
ANTH 485. Method and Theory in Biological Anthropology (1-8). Methods and techniques, research problems, data collection, analysis, interpretation. Laboratory orientation. Prerequisite: Introductory plus 5 upper-division credits in biological anthropology or corresponding coursework in the biological sciences. May be repeated up to 8 credits. Formerly ANTH 495.1.

ANTH 486. Advanced Methods in
Archaeology (1-8). Archaeological research design; planning and supervision of laboratory and field operation; preparation of reports for publication. Prerequisite: 5 upper-division credits in archaeology. May be repeated up to 8 credits. No more than 10 credits of ANTH 320 and 486 allowed to fulfill BA or BS requirements. Formerly ANTH 495.2.
ANTH 487. Field Linguistics (1-8). A laboratory-oriented course providing both demonstration and practicum in recording, transcription, and structure of languages. Tapes and field-derived data. Prerequisite: ANTH 382 or permission. May be repeated up to 8 credits. Formerly ANTH 495.3.
ANTH 488. Advanced Research in Cultural Anthropology (1-8). Prerequisite: ANTH 130 or equivalent, plus 5 upper-division credits in cultural anthropology. May be repeated for credit up to a total of 8 credits. Formerly ANTH 495.4.
ANTH 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated.
ANTH 491. Workshop (1-6).
ANTH 492. Anthropological Teaching Experience (1-2). Prerequisite: 15 credits in anthropology; permission of instructor and department chair. May be repeated; a maximum of 6 credits to count toward major. Grade will be S or U. Formerly ANTH 494.
ANTH 493. Anthropological Field
Experience (1-8). Individual or group offcampus experience in the field study of anthropological phenomena. Prerequisite:
permission of instructor and department chair. This course may be repeated for full credit.
ANTH 494. Applied GIS Project (2-6). GIS projects in anthropology, biology, geography, geology, resource management. Prerequisite: ANTH/GEOG 215 and permission of instructor. May be repeated for credit. ANTH 494, GEOG 494, and GEOL 494 are equivalent courses. Formerly ANTH 492.
ANTH 496. Individual Study (1-6).
Prerequisite: permission of instructor.
ANTH 498. Special Topics (1-6).
ANTH 499. Seminar (1-5).

## BIOLOGICAL SCIENCES DEPARTMENT

Ellensburg
Science Bldg., room 338
509-963-2731
Fax: 509-963-2730
www.cwu.edu/ ~biology
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Paul W. James, PhD

## Professors

Daniel D. Beck, PhD, physiological ecology and herpetology
David M. Darda, PhD, evolutionary vertebrate morphology, herpetology
Kristina A. Ernest, PhD, terrestrial and community ecology
Paul W. James, PhD, ecology and fisheries biology
Sheldon R. Johnson, PhD, zoophysiology, mammalogy (emeritus)
Robert E. Pacha, PhD, microbiology (emeritus)
Linda A. Raubeson, PhD, evolutionary biology and genetics
Stamford D. Smith, PhD, entomology (emeritus,)
Lixing Sun, PhD, behavioral ecology and evolution

## Associate Professors

Tom R. Cottrell, PhD, plant ecology
James E. Johnson, PhD, mycology, systematics
Holly C. Pinkart, PhD, microbiology, microbial ecology
Mary E. Poulson, PhD, plant physiology
Ian J. Quitadamo, PhD, science education, cell and molecular biology
R. Steven Wagner, PhD, conservation genetics and herpetological science

## Assistant Professors

Lucinda Carnell, PhD, molecular behavioral genetics

Jennifer Dechaine, PhD, plant biology
Blaise Dondji, PhD, human physiology, microbiology, parasitology, immunology
Jason T. Irwin, PhD, animal physiology
Daniel J. Selski, PhD, developmental neurobiology
Gabrielle Stryker, PhD, microbiology, immunology and parasitology

## Lecturers

Clay Arango, PhD
Lucy Bottcher, PhD
Raymon Donahue, PhD

## Staff

Jonathan Betz, instructional classroom support technician
Mary Bottcher, instructional classroom support technician
Darlene Boykiw, office assistant
Kariann Linnell, secretary supervisor
Lee Longmore, engineering technician
Jody Scheffelmaier, science instructional technician
Jeff Wilcox, engineering technician

## Department Information

The Department of Biological Sciences provides the biological component of the liberal arts education at the university. We promote student understanding of biological concepts relevant to the individual and society, and foster an appreciation of scientific inquiry. Evolution is the unifying theme of our curriculum. Our students obtain a broad education, covering a wide variety of biological disciplines. We focus on the student. Classes are small, facilitating handson experience, interactions with faculty and opportunities for both undergraduate and graduate research. We offer a full complement of competitive pre-professional programs, strong programs in regional field biology, and a quality program for secondary biology educators.

## Admission Requirements

To be admitted to a biology major or minor, all students must:

## 1. Meet with an advisor.

Advisors are normally assigned by the biology department upon admission to the major. However, it is highly recommended that a student talk with an advisor well before being admitted to the major. Any biology department faculty member may serve as an advisor but different faculty members advise in different areas. Please meet with your advisor as early in your academic career as possible to begin planning your program.
2. Meet the entry-to-major qualifications listed below:

- Pass CHEM 181, 181LAB, CHEM 182, 182LAB, and CHEM 183, 183LAB
- Pass BIOL 181, 182, and 183 OR BIOL 110, 111, and 112


## - Qualify for MATH 170

- Register with the department and be advised by departmental faculty

3. Complete and file an application to the major by the beginning of the junior year. A formal application to the biology major must be submitted with your advisor's approval. The entry-to-major qualifications must be met and application should be made by the beginning of the junior year. Application forms can be obtained from the advisor, the department office, or online at www.cwu.edu / ~biology / forms / index.html.
4. Complete and file a program of study by the end of the junior year.
To graduate, each student must have on file in the biology department and in the registrar's office, an official Course of Study. The Course of Study documents a student's individual degree program and lists the required and elective courses necessary for successful program completion. It is prepared by the student in conjunction with his or her advisor and should be approved by the student, advisor, and department chair at least one year prior to graduation. Students should meet with their advisor regularly to discuss their progress. Course of Study forms can be obtained from the advisor, the department office, or online at: www. cwu.edu/~biology/forms/index.html.

## Student Scholarly Activities

The department is student oriented and provides a diversity of laboratory and field experiences. Students are encouraged to participate in a variety of activities.

- Research activities: Students are encouraged to seek out a faculty member who is engaged in active research that complements the student's career goals. Students who begin research early and continue it through their career in the department gain a better understanding of their profession and are more competitive in the job market or in graduate school admissions.
- Field program: The department believes in the importance of exposing students to biological field experiences. In addition to those provided by regular courses, the department offers summer field courses and trips to biologically interesting areas during breaks between quarters.


## Student Organizations

Biology Club: All biology students are encouraged to join the Biology Club. This student-run organization meets regularly to discuss academic planning and career opportunities in biology. The club performs service activities and plans recreational outings. See its Web site at www.cwu. edu/ ~biology / biologyClub/biologyClub. html.

Beta Beta Beta: BBB is the undergraduate National Biological Sciences Honorary Society. Students maintaining a high grade point average ( 3.0 or higher) are encouraged to apply.

Various organizations for students interested in health professions (medicine, dentistry, etc.) are available to provide information, support, and opportunities for service.

## Fees

Laboratory or field fees are assessed for many of the department's lab courses. These fees are used as partial support for purchasing lab materials or providing transportation costs.

## General Consideration for Biology Majors and Minors

- The biological sciences department must approve each student's program at least one academic year preceding graduation
- CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. PHYS 111 has a prerequisite of high school algebra and trigonometry. PHYS 181 has a prerequisite or corequisite of MATH 172, 173, and 272. BIOL 360 has a prerequisite of MATH 153.
- Credits earned in CHEM 181, 181LAB, and PHYS 111 will be allowed in partial fulfillment of the natural science breadth requirements as well as the requirements of the biology major or minor.
- A maximum of 15 credits in BIOL 490 and BIOL 496 may be included in the major (as electives in the BS degrees).
- A major in biological sciences incorporates classes from mathematics and other sciences. A full year of introductory biology and introductory chemistry is required for enrollment in upperdivision biology classes. The introductory chemistry sequence (CHEM 181, 182, 183) is pre- or corequisite to the introductory biology series (BIOL 181, 182, 183). Students are urged to complete these two introductory series in their first year or as early in their academic career as possible.


## Graduation Requirements

- You must have a cumulative GPA of at least 2.25 in your major.
- End-of-major assessment must be completed, usually in conjunction with BIOL 499S. This requirement helps to assess whether the department has fulfilled its instructional objectives and provides us with information that will enable us to continuously improve our programs and courses.
- Application for the bachelor's degree must be filed by the second Friday of the quarter preceding the quarter in which the degree
is to be received. Complete instructions and deadlines are available in Registrar Services.


## Bachelor of Arts Biology Major

The BA degree is designed to develop a general breadth in the sciences. Students completing the BA major will find that their strong general background will allow them flexibility in career choices. The BA degree meets the requirements for admission to most graduate schools and medical schools. (NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Required Courses

BIOL 181 - General Biology I. . . . . . . . . . . . . . 5
BIOL 182 - General Biology II . . . . . . . . . . . . . 5
BIOL 183 - General Biology III . . . . . . . . . . . . 5
BIOL 213 - Quantitative Methods in
Biology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
BIOL 321 - Genetics . . . . . . . . . . . . . . . . . . . . . 5
BIOL 470 - Mechanisms of Evolution. . . . . . . 3
BIOL 497 - Honors Thesis . . . . . . . . . . . . . . . . 1
OR
BIOL 499S. - Senior Seminar (1)
CHEM 181 - General Chemistry I .......... . 4
CHEM 181LAB - General Chemistry
Laboratory I . . . . . . . . . . . . . . . . . . . . . . . . . 1
CHEM 182 - General Chemistry II . . . . . . . . . 4
CHEM 182LAB - General Chemistry
Laboratory II . . . . . . . . . . . . . . . . . . . . . . . 1
CHEM 183 - General Chemistry III . . . . . . . . 4
CHEM 183LAB - General Chemistry
Laboratory III . . . . . . . . . . . . . . . . . . . . . 1
CHEM 361 - Organic Chemistry I . . . . . . . . . 3
CHEM 361LAB - Organic Chemistry
Laboratory I . . . . . . . . . . . . . . . . . . . . . . . . 2
CHEM 362-Organic Chemistry II ......... 3
Select from the following sequences . . . . . 10
PHYS 111, 111LAB, 112, 112LAB, OR PHYS 181, 181LAB, 182, 182LAB
Select from the following . . . . . . . . . . . . 5-10
BIOL 355 - Human Anatomy and Physiology (5) AND
BIOL 356 - Human Anatomy and Physiology (5)
BIOL 441 - Plant Physiology (5)
BIOL 455 - Zoophysiology (5)
Select from the following . . . . . .
BIOL 360 - General Ecology (5)
BIOL 420 - Environmental Microbiology (5)

Total Credits: 71-76

## Bachelor of Science Biology Major

The BS major offers undergraduate students a degree program with depth of training in the biological sciences and supporting fields. This program prepares
students for immediate entrance into careers in biological sciences or for graduate work (for preparation for teaching high school biology, see biology teaching major). Students may choose a general BS degree (no specialization), or a specialization in one of three areas: cell and molecular biology, ecology, or organismal biology (these will be indicated on the student's transcripts). Students consult with the appropriate biology advisor for approval of their BS program and electives, which must be submitted for approval to the biological sciences department at least one academic year preceding graduation. All students in the BS biology major must complete all $B S$ core requirements, plus additional specific requirements if they choose a specialization.
A maximum of 15 credits in BIOL 490 and BIOL 496 may be included in the major. CHEM 181 has a prerequisite of high school chemistry and qualification for MATH 153. BIOL 360 has a prerequisite of MATH 153.
Biology Core
BIOL 181 - General Biology I . . . . . . . . . . . . . . 5
BIOL 182 - General Biology II . . . . . . . . . . . . . . 5
BIOL 183 - General Biology III . . . . . . . . . . . . 5
BIOL 213 - Quantitative Methods in
Biology4
BIOL 321 - Genetics ..... 5
BIOL 360 - General Ecology ..... 5
OR
BIOL 420 - Environmental Microbiology (5) ..... (5)
BIOL 441 - Plant PhysiologyORBIOL 455 - Zoophysiology (5)
BIOL 470 - Mechanisms of Evolution .....  3
BIOL 497 - Honors Thesis ..... 1
OR
BIOL 499S. - Senior Seminar (1)
General Chemistry and Laboratory ..... 15
CHEM 181, 181LAB, 182, 182LAB,183, 183LAB
CHEM 361 - Organic Chemistry I ..... 3
CHEM 361LAB - Organic ChemistryLaboratory I2
CHEM 362 - Organic Chemistry II ..... 3

Core Total Credits: 61


## Organismal diversity requirement:

All students in the Biology BS program must take at least one advanced (300- or 400-level) animal course, one advanced plant course, and one advanced course covering other organisms (fungi, protists, bacteria, viruses). These courses may be contained within the core or taken as electives. See department for list of approved courses in each category. These need not be additional courses already included to satisfy other major requirements.

## Bachelor of Science General Biology (no specialization)

This general degree offers students the flexibility to choose a broad range of courses within biology or tailor course requirements to specific interests. A biology advisor must approve electives.

## Required Courses

Biology Core Requirements. . . . . . . . . . . . . . . 61
General Biology Electives . . . . . . . . . . . . . . . 39
Total Credits: 100

## Cell and Molecular Biology Specialization

Cell and molecular biology (CMB) is the study of what cells are, how they are put together, what makes them work, what makes them differ from each other, how they associate and interact, and what goes wrong in disease states. The study of cell and molecular biology facilitates understanding of a wide variety of disciplines including genetics, developmental biology, microbiology, immunology, and physiology. The emphasis in CMB is designed for students with interests in the cellular and molecular basics of life and the application of molecular techniques to medical, technological, and environmental issues. The goal of the CMB specialization is to prepare graduates to be competitive in applications for entry into graduate degree programs, professional programs, or technical /industrial jobs. A full year of physics (PHYS 111/112/113 + labs or PHYS 181/182/183 + labs) is recommended for students interested in cell and molecular biology.

Students interested in microbiology are eligible to become registered microbiologists (National Registry of Microbiologists, American Academy of Microbiology) upon completing the following requirements:

1. A minimum of a baccalaureate degree in biological science with 30 quarter credits in microbiology courses.
2. Acceptable experience equivalent to one year of full-time work in a microbiology laboratory related to the specialty area in which certification is sought. Experience
must have been gained within the immediate past three years. Certification as a conditional registrant is offered to individuals who possess the academic qualifications for registered microbiologist, but lack the required year of full-time laboratory experience.

## Required Courses

Biology Core Requirements. . . . . . . . . . . . . . . 61
BIOL 430 - Cell Biology . . . . . . . . . . . . . . . . . . . 5
BIOL 323 - Microbiology . . . . . . . . . . . . . . . . . 5
BIOL 425 - Molecular Biotechnology . . . . . . . . 5
CHEM 431 - Biochemistry I . . . . . . . . . . . . . . 3
CHEM 431LAB - Biochemistry Laboratory . 2
Approved Electives. . . . . . . . . . . . . . . . . . . . . 19
Total Credits: 100

## Ecology Specialization

Ecology is the study of how organisms interact with their physical and biological environment. The ecology specialization is designed for students interested in basic and applied ecology, including fisheries, wildlife management, forestry, ecological restoration, and conservation biology. Students following this specialization will gain experience in natural history, field research, and experimental design. Potential careers may be found in federal, state, and tribal agencies, or private environmental consulting firms. The ecology faculty strongly suggest that every student augment the single required taxonomy course with an elective second taxonomy course. Students interested in graduate study in ecology should work closely with their advisor to tailor this specialization to their particular field of interest.

## Required Courses

Biology Core Requirements .............. . . 61
BIOL 467 - Biological Field Techniques . . . . . 5
MATH 170 - Intuitive Calculus . . . . . . . . . . . 5
Select one of the following advanced
ecology courses . . . . . . . . . . . . . . . . . . . . . . 5
BIOL 461 - Community Ecology (3)
BIOL 461LAB - Community Ecology
Lab (2)
BIOL 462 - Wildlife and Fisheries Ecology (5)

BIOL 463 - Limnology (5)
BIOL 464 - Terrestrial Plant Ecology (5)
BIOL 466 - Conservation Biology (5)
Select one of the following taxonomy courses .4-5
BIOL 341 - Plant Taxonomy (5)
BIOL 443 - Mycology (5)
BIOL 444 - Algae and Bryophytes (5)
BIOL 445 - Field Mycology (5)
BIOL 450 - Ichthyology (4)
BIOL 451 - Herpetology (4)
BIOL 452 - Ornithology (4)
BIOL 453 - Mammalogy (5)
Approved Electives.

## Organismal Biology Specialization

The organismal biology specialization allows a student to explore the structure (morphology), function (physiology), development, behavior, and taxonomic diversity of animals, plants, fungi and / or microbes. A student looking for a traditional zoology or botany program will be well served by this specialization. The organismal specialization is a good choice for students preparing for graduate study in organismal biology or planning for a career in the health professions, forensics, or state or federal agency work, and it can complement other programs such as teaching, biological anthropology, and psychology.

## Required Courses

Biology Core Requirements

## Select two of the following <br> structural/functional courses . . . . . . . .10-11

BIOL 353 - Comparative Vertebrate Anatomy (6)
BIOL 354 - General Vertebrate Embryology (5)
BIOL 442 - Comparative Morphology of Vascular Plants (5)
BIOL 454 - Histology (5)
Select one of the following taxonomy courses
. . . . . . . . . . . . . . . . . 4-5
BIOL 341 - Plant Taxonomy (5)
BIOL 444 - Algae and Brophytes (5)
BIOL 445 - Field Mycology (5)
BIOL 450 - Ichthyology (4)
BIOL 451 - Herpetology (4)
BIOL 452 - Ornithology (4)
BIOL 453 - Mammalogy (5)
Approved Electives
Total Credits: 100

## Bachelor of Science <br> Biology Teaching Major

This major satisfies the criteria for an endorsement in biology and qualifies students to teach biology at the high school, middle school, or junior high levels. Students should consider working toward endorsement in a second area such as chemistry, earth science, physics, middle level science, or middle level mathematics. Students taking this major are required to complete the professional education program requirements offered through the education department. Students completing this program are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition to the above requirements, students must pass the WEST-E (PRAXIS II) exam for biology to receive a biology endorsement.

## Required Courses

BIOL 181 - General Biology I
BIOL 182 - General Biology II .5
BIOL 183 - General Biology III
5

BIOL 213 - Quantitative Methods in
Biology . ..... 4
BIOL 321 - Genetics .....  5
BIOL 322 - Introductory Microbiology ..... 5 OR
BIOL 323 - Microbiology (5)
BIOL 360 - General Ecology 5
BIOL 427 - Biotechnology for Teachers ..... 5
BIOL 470 - Mechanisms of Evolution. .....
Select either ..... 5-10
BIOL 355 - Human Anatomy andPhysiology (5)
AND
BIOL 356 - Human Anatomy and
Physiology (5)
OR
BIOL 441 - Plant Physiology (5)
OR
BIOL 455 - Zoophysiology (5)
BIOL 492 - Laboratory Experience in
Teaching Biological Sciences . . . . . . . . . . . . 2
SCED 324 - Science Education in Secondary
Schools . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
SCED 487 - End of Program Seminar. . . . . . . 2
SCED 495 - Science Education Research . . .1-3
Select the following sequence. . . . . . . . . . . 23
CHEM 181, 181LAB, 182, 182LAB,
183, 183LAB
AND
CHEM 361, 361LAB, 362
Total Credits: 79-86

## Biology Minor

Not available to biology majors

## Required Courses

BIOL 181 - General Biology I. . . . . . . . . . . . . . . 5
BIOL 182 - General Biology II . . . . . . . . . . . . . . 5
BIOL 183 - General Biology III . . . . . . . . . . . . 5
BIOL 213 - Quantitative Methods in Biology .
Electives in Biological Sciences ..... 10
General Chemistry and Laboratory . .CHEM 181, 181LAB, 182, 182LAB, 183,183LAB

Total Credits: 44

## Biology: Teaching Elementary Minor

## Required Courses

BIOL 101 - Fundamentals of Biology . . . . . . . 5
BIOL 200 - Plants in the Modern World. . . . . 5
BIOL 201 - Human Physiology . . . . . . . . . . . . 5
BIOL 300 - Introduction to Evolution . . . . . . 5
SCED 322 - Science Education in the Elementary School.

Total Credits: 24

## Biology: Teaching Secondary Minor

This minor is restricted to students working on a teaching major in chemistry, earth science, physics, or general science if not the chosen designated science area. Students completing this minor are required to demonstrate proficiency of student learning outcomes through a program portfolio prior
to student teaching. Students may satisfy the biology reaching requirement by either taking BIOL 492 or through an independent live science teaching experience. In addition, students must pass the WEST-E exam for biology to receive a biology endorsement.

## Required Courses

CHEM 181/181LAB - General
Chemistry I. .5

CHEM 182/182LAB - General
Chemistry II 5

CHEM 183/183LAB - General

Chemistry III 5
BIOL 181 - General Biology I. .....  5
BIOL 182 - General Biology II .....  5
BIOL 183 - General Biology III .....  5
BIOL 213 - Quantitative Methods in Biology .....  4
BIOL 321 - Genetics .....  5
BIOL 360 - General Ecology ..... 5
Total Credits: 44

## Craft Beet Trade Certificate

## Program Advisor

Steve Wagner, PhD
An interdisciplinary certificate program designed to be completed in an intensive 10 -week session. The program provides an overview of the science, technology and sales/merchandising aspects of the craft beer brewing industry. Topics include principles of malting and brewing, brewing process technology, brewing microbiology and principles of merchandising management for micro brewing industry. Students learn about the trade using a variety of approaches including lab work, hands on experiences, lectures, field trips, and industry speakers.

Pre-admission requirements
MATH 153 - Pre-calculus Mathematics I.
Choose one of the following:
CHEM 101 - Contemporary Chemistry (4)
CHEM 111/111LAB - Introduction to Chemistry/Lab (5)
CHEM 181/181LAB - General Chemistry/Lab (5)

## Admission Requirements

Students must be 21 years of age or older to enroll in the program and must apply for acceptance into the program.

## Special Requirements

Students will be expected to spend significant time outside the classroom working on assignments and projects. Some sessions may meet on Saturdays. In order to receive the certificate, students must earn a grade of B- or above in each of the four courses.

## Financial Obligations

Because this is a self-support funded program, no tuition waiver programs apply. Additional course fees and continuing education tuition applies.
Required Courses
Pre-admission Requirements. ..... 10
BIOL 312 - Brewing Microbiology ..... 4
BIOL 317 - Principles and Biochemistry ofBrewing. 4
RMT 320 - Principles of MerchandisingManagement for Micro Brewing. 5
IET 360 - Brew Process Technology ..... 3
Total Credits: 26

## Allied Health Science Course

## AHSC 301. Introduction to Medical

Technology (2). Introduction to laboratory procedures and theory of urinalysis, clinical chemistry, hematology, blood banking and coagulation. Prerequisites: five credit hours in biology and five credit hours in chemistry and permission of instructor. One-hour lecture and two hours laboratory per week.

## Biological Sciences Courses

BIOL 101. Fundamentals of Biology (5). Biology in the modern world. Four hours lecture and one two-hour laboratory per week. May not be counted toward a major or minor in the Department of Biological Sciences.
BIOL 111. Plant Biology (5). Prerequisite: BIOL 110. Four hours lecture and one twohour laboratory per week.
BIOL 112. Animal Biology (5). Prerequisite: BIOL 110. Four hours lecture and two hours laboratory per week.
BIOL 181. General Biology I (5). Introduction to the scientific method and the principles of ecology, genetics, and evolution. Pre- or co-requisite, CHEM 181. Four lecture hours and three laboratory hours per week.
BIOL 182. General Biology II (5).
Introduction to the principles of cellular and molecular biology. Pre- or co-requisite, CHEM 182. Prerequisite: BIOL 181 Four lecture hours and three laboratory hours per week.
BIOL 183. General Biology III (5). Introduction to the form and function of multicellular organisms. Pre- or corequisite, CHSM 183. Prerequisite: BIOL 182. Four lecture hours and three laboratory hours per week.
BIOL 200. Plants in the Modern World (5). Plants and their significance in the world today. Three hours lecture and three hours laboratory per week. (Not open to majors in the biological sciences.) May not be counted toward a major or minor in the Department of Biological Sciences.
BIOL 201. Human Physiology (5). Organ systems of humans. Not open to students with credit in BIOL 455; may not be counted toward a major or minor in the Department of Biological Sciences.
BIOL 213. Quantitative Methods in Biology
(4). An introduction to commonly used methods for analyzing biological data.

Prerequisites: MATH 130 and either BIOL 183 or BIOL 111 plus 112. Use of statistical and graphical software will be emphasized. BIOL 220. Introductory Cell Biology (5). Concepts, processes, and structures involved in understanding life at the cellular level. Prerequisites: CHEM 113 or CHEM 183. Does not count toward biology major for students who complete BIOL 181, 182 and 183.
BIOL 298. Special Topics (1-6).
BIOL 300. Introduction to Evolution (5). The evidence, theories, and mechanisms of the evolution of life, including man. May not be counted toward a major in the Department of Biological Sciences.
BIOL 302. Human Ecology (5). Basic concepts of ecology with emphasis on ecosystems and populations and how human activities and attitudes relate to these basic concepts. This course may not be counted toward a major in the Department of Biological Sciences.
BIOL 304. Human Inheritance (5). The study of human inheritance and related areas of biology. May not be counted toward a major in the Department of Biological Sciences.
BIOL 312. Brewing Microbiology (4). An introduction to the biology of yeasts and other organisms important in the craft brewing industry. Includes the application of laboratory methods useful in brewing and quality control. Students must have earned a grade of C or better in CHEM 101, or CHEM 111, or CHEM 181, and MATH 153, or permission of the instructor. Student must be enrolled in the Craft Beer Trade Certificate program.
BIOL 317. Principles and Biochemistry of Brewing (4). An introduction to the principles of brewing and biochemistry of fermentation processes important in the craft brewing industry. Includes the application of laboratory methods useful in product evaluation and quality control. Prerequisites: students must have earned a grade of C or better in CHEM 101, or CHEM 111, or CHEM 181 and MATH 153, or permission of the instructor. Students must be 21 years of age or older and be enrolled in the Craft Beer Trade Certificate.
BIOL 321. Genetics (5). A lecture and laboratory course in the basic principles of heredity of plants and animals. Prerequisite: BIOL 213 and either BIOL 183 or BIOL 220. Four hours lecture and two hours laboratory per week.
BIOL 322. Introductory Microbiology (5). Introductory biology of microorganisms and viruses with applications to medicine, food science, industry, and agriculture. Intended for nutrition and allied health students. Prerequisite: BIOL 220 or BIOL 182. Three hours lecture and four hours laboratory per week. Biology majors are encouraged to take BIOL 323. BIOL 322 may be counted toward a degree in the biology department in lieu of BIOL 323, however BIOL 322 cannot be counted toward a
degree in the biology department if BIOL 232 is successfully completed.
BIOL 323. Microbiology (5). Principles of microbiological practice, including isolation, cultivation, identification, physiology, evolution, and ecology. Prerequisites: BIOL 213 and either BIOL 183 or 220. Two hours lecture and six hours laboratory per week. Does not count toward any biology major if student has successfully completed BIOL 322.

BIOL 341. Plant Taxonomy (5). Classification of vascular plants, using local flora. Prerequisite: BIOL 111 or BIOL 200 or BIOL 183. Two hours lecture and six hours laboratory per week; the course includes field trips and individual field work.
BIOL 343. Plant Anatomy (5). A treatment of the fundamental facts and aspects of vascular plant anatomy. Plant tissues with special reference to their development, organization, and biological significance. Prerequisite: BIOL 111 or BIOL 183. Three hours lecture and four hours laboratory per week.
BIOL 351. General Entomology (5). Insect biology, taxonomy, structure, and relationships to man.
BIOL 352. Parasitology (5). Biological relations of animal parasite and host; structure, classification, and methods of diagnosis of parasitic protozoa, worms, and arthropods. Biology 112 is required as a prerequisite. Two hours lecture and six hours laboratory per week.
BIOL 353. Comparative Vertebrate Anatomy (6). Evolutionary, functional, and developmental aspects of vertebrate morphology. Prerequisite: BIOL 183 or BIOL 112. Three hours lecture and six hours laboratory per week.
BIOL 354. General Vertebrate Embryology
(5). Comparative development; fertilization, growth and differentiation, experimental morphogenesis, and establishment of the early organ systems. Prerequisite: CHEM 361, 361LAB and either BIOL 112 or BIOL 183. Two hours lecture and six hours laboratory per week.
BIOL 355. Human Anatomy and Physiology
(5). The first quarter of a two-quarter study of the structure and function of the human body. Prerequisite: BIOL 183 or BIOL 220 or both, EXSC 250 and EXSC 351. Students should not take BIOL 355 unless they intend to take BIOL 356. Three hours lecture and four hours laboratory per week.
BIOL 356. Human Anatomy and Physiology (5). The second quarter of the two-quarter study of the structure and function of the human body. Prerequisite: BIOL 355. Three hours lecture and four hours laboratory per week.
BIOL 360. General Ecology (5).
Interrelationships of organisms with their environment. Prerequisites: BIOL 213 and MATH 153. Three hours lecture and four hours laboratory / field work/discussion per week. A weekend field trip may be required.

BIOL 362. Biomes of the Pacific Northwest
(4). One-week field trip to explore the various biomes of Washington. Emphasis on writing field notes, observing and identifying organisms and communities. Prerequisites: BIOL 110 or BIOL 181.
BIOL 377. Regional Natural History (2). Classroom study of the natural history of a selected region as preparation for a one- to two-week field trip. Emphasis will be on developing background skills to undertake a field exploration over the quarter (winter, spring, summer) break. Subtitles will identify the selected geological region (e.g. Baja California Natural History). Prerequisite: permission of instructor. May be repeated for credit under a different subtitle (region). BIOL 377 and GEOL 377 are equivalent courses.
BIOL 377LAB. Regional Natural History (3). Special fees required. One- to two- week field trip to explore biological and physical patterns and processes in selected regions of North America. Emphasis will be on recording field observations, keeping a field journal, field study techniques, and performing investigations chosen and developed by student participants. Subtitles will identify the region studied. Prerequisite: BIOL 377 and permission of instructor. May be repeated for credit under a different subtitle. BIOL 377LAB and GEOL 377 LAB are equivalent courses.
BIOL 398. Special Topics (1-6).
BIOL 420. Environmental Microbiology (5). Ecology of microorganisms in marine, freshwater, and soil environments. Prerequisites: BIOL 323 and CHEM 362. Three hours lecture and four hours laboratory per week.
BIOL 421. General Virology (5). Interrelationship between animal, plant, and bacterial viruses and their hosts, with emphasis on the animal viruses. Prerequisites: BIOL 430 or BIOL 321, or CHEM 432. Five hours lecture per week.
BIOL 422. Immunology (5). Nature of the immune response, disease-preventing and producing mechanisms and laboratory applications. Prerequisites: CHEM 361 and either BIOL 220 or BIOL 183. Five hours lecture per week.
BIOL 423. Techniques in Immunology and Virology (5). A practical course in dealing with the routine techniques used in diagnostic and experimental immunology and virology. Prerequisite or co-requisites, BIOL 420 or 422. Three hours lecture and four hours laboratory per week.
BIOL 425. Molecular Biotechnology (5). The practice and theory of techniques used in molecular biology. Prerequisite: BIOL321. Two hours lecture and six hours laboratory per week.
BIOL 426. Medical Microbiology (3). An introduction to medical microbiology emphasizing the biology of pathogenic bacteria, their relation to infectious diseases, and the isolation and identification of specific disease agents. Prerequisite: BIOL 323 or permission of instructor. Three lectures per week.

BIOL 426LAB. Medical Microbiology
Laboratory (2). Prerequisite: BIOL 323; prerequisite or co-requisite, BIOL 426.
BIOL 427. Biotechnology for Teachers (5). This course will help pre-service teachers develop the necessary skills to construct and perform biological experiments using contemporary biotechnology in the context of educational theory and application. Prerequisites: BIOL 321.
BIOL 430. Cell Biology (5). Analysis of cell organization and the processes governing cell function and behavior. Prerequisites: BIOL 812, and CHEM 361/361LAB. Lecture 4 hours per week and 3 hours lab.
BIOL 440. Plant Pathology (5). Representative diseases of plants and the bacterial and fungal organisms, which cause them. Prerequisite: BIOL 111 or BIOL 183. Two hours lecture and six hours laboratory per week.
BIOL 441. Plant Physiology (5). A critical study of the physiological processes of plants including water relations, photosynthesis, mineral assimilation, and responses to the environment. Prerequisites: BIOL 213. Pre- or co-requisite, CHEM 362.
BIOL 443. Mycology (5). The biology, morphology, and economic importance of the major groups of fungi including the slime molds. Prerequisite: either BIOL 183 or both BIOL 111 and 220. Three hours lecture and four hours laboratory per week.
BIOL 444. Algae and Bryophytes (5). Study of the occurrence, evolution, physiology, and ecology of fresh-water and marine algae and non-vascular plants with emphasis on those in the Pacific Northwest. Prerequisite: BIOL 111 or BIOL 183. Three hours lecture and four hours laboratory per week.
BIOL 445. Field Mycology (5). Stresses taxonomy, morphology, and ecology of mushrooms and related forms with emphasis on Northwest flora. Prerequisite: BIOL 111 or BIOL 213.
BIOL 450. Ichthyology (4). An introduction to the biology, taxonomy, and distribution of modern fishes with special reference to the Pacific Northwest. Prerequisite: BIOL 213 and either BIOL 112 or BIOL 183. Three hours lecture and two hours laboratory or field work per week.
BIOL 451. Herpetology (4). An introduction to biology, taxonomy, and distribution of modern amphibians and reptiles with special reference to the Pacific Northwest. Prerequisite: BIOL 112 or BIOL 183. Two hours lecture and four hours laboratory or field studies per week.
BIOL 453. Mammalogy (5). Evolution, taxonomy, and ecology of mammals with laboratory emphasis on Pacific Northwest mammals. Prerequisite BIOL 112 or BIOL 183. Three hours lecture and four hours laboratory per week.
BIOL 454. Histology (5). Systematic study, description, and identification of microscopic structures of animal tissues. Prerequisites: BIOL 353 or BIOL 356. Three hours lecture and four hours laboratory per week.

BIOL 455. Zoophysiology (5). Vertebrate physiology; laboratory experience in physiological techniques. Prerequisites: CHEM 362 and either BIOL 213 or BIOL 112 as well as BIOL 220 or BIOL 430. Three hours lecture and four hours laboratory per week.
BIOL 461. Community Ecology (3). Principles of the structure and function of ecological communities. Prerequisite or co-requisite, BIOL 360 .
BIOL 461LAB. Community Ecology Laboratory (2). Laboratory and field study of the structure and function of ecological communities. Co-requisite BIOL 461. Four hours of laboratory / field work per week. Weekend field trips may be required.
BIOL 462. Wildlife and Fisheries Ecology (5). Ecological principles of wildlife and fish populations and communities as they relate to management theory and practice in the Pacific Northwest. Prerequisite: BIOL 360. Three hours lecture / discussion and four hours laboratory / field work per week. Weekend field trips may be required.
BIOL 463. Limnology (5). Chemical, physical and biological characteristics of inland waters. Prerequisites: CHEM 182 and BIOL 360 or permission of instructor. Three hours lecture and four hours laboratory per week.
BIOL 464. Terrestrial Plant Ecology (5). The ecological relationships of plant species and plant communities. Prerequisites: BIOL 111 (or BIOL 183), BIOL 213, and BIOL 360. Three hours lecture and either four hours laboratory or a Saturday field trip per week.
BIOL 465. Biology of Animal Behavior (4). Prerequisite BIOL 213 or PSY 362. Three lectures and two hours of laboratory a week.
BIOL 466. Conservation Biology (5). An introduction to the theory and practice of conservation biology, with emphasis on case studies. Prerequisite BIOL 360 or permission of instructor. Two hours lecture, one hour discussion, and four hours lab or field study per week. Weekend field trips may be required.
BIOL 467. Biological Field Techniques (5). Intensive, field-based experience in techniques used by field biologists to sample organisms and their environments, and analyze data collected in the field. Prerequisite: BIOL 360.
BIOL 470. Mechanisms of Evolution (3). Darwinian evolution and the modern synthesis. Prerequisites: 15 credits of biology plus senior standing. Formerly BISC 485. Students may not receive credit for both.
BIOL 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.

BIOL 491. Workshop (1-6).
BIOL 492. Laboratory Experience in Teaching Biological Sciences (2). Experience in planning, managing, and teaching in a laboratory setting. Prerequisite: 15 credit hours in college biology and permission of instructor. May be repeated once for full credit with permission of chair.
BIOL 493. Biological Field Practicum (1-15). Individual or group off-campus experience in the field study of biological phenomena. Prerequisite: permission of instructor. This course may be taken more than once for full credit.
BIOL 496. Individual Study (1-6).
Prerequisite: permission of instructor. Formerly BISC 496/BOT 496/ZOOL 496.
BIOL 497. Honors Thesis (1-5). Prerequisite: admission to departmental honors program. May be repeated for up to a total of 6 credits. This course may be substituted for BIOL 499S, a senior seminar in any biology baccalaureate program.
BIOL 498. Special Topics (1-6).
BIOL 499. Seminar (1-5). May be repeated.
BIOL 499S. Senior Seminar (1). Biological sciences: reading, writing, and speaking. Either this course or BIOL 497 Honors Thesis is required in all baccalaureate programs of the biology department. Prerequisite: senior standing. $f$

## CHEMISTRY

DEPARTMENT
Ellensburg
Science Bldg., room 302
509-963-2811
Fax: 509-963-1050
www.cwu.edu / ~chem
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
JoAnn Peters, PhD

## Professor

Martha J. Kurtz, PhD, chemistry and science education
JoAnn Peters, PhD, organic, mechanistic

## Associate Professors

Anthony Diaz, PhD, inorganic, solid state Anne Johansen, PhD , environmental, analytical
Carin Thomas, PhD, biochemistry, toxicology

## Assistant Professors

Gil Belofsky, PhD, organic
Stephen Chamberland, PhD, organic
Levente Fabry-Asztalos, PhD, organic
Yingbin Ge, PhD, physical
Dion Rivera, PhD, physical, analytical
Tim Sorey, PhD, chemistry education

## Lecturers

Jozef Magonski, PhD, general
Robert Rittenhouse, PhD, general
Viorel Sarca, PhD, organic and biochemistry

## Staff

Tony Brown, stockroom manager
Don Davis, computer technician
Cynthia Kuhlken, safety officer/research lab manager
Lee Longmore, instrument technician
Mari Sorey, stockroom assistant
Lisa Stowe, secretary
Jeff Wilcox, instrument technician

## Department Information

The department offers three majors. In each major, courses in the first two years emphasize fundamental topics in chemistry, mathematics, and physics. Students then choose advanced courses in chemistry and related areas to complete the requirements in their major.

These majors provide opportunities for practical experience in chemistry. Students are encouraged to do research on campus with a faculty member, and to participate in the department's seminar program. Two minors are offered to supplement career related fields.

## Department Standards

Students must have earned a grade of Cor higher in all prerequisites to be admitted to a course. To graduate, all chemistry majors are required to achieve at least a 2.0 cumulative GPA and a 2.25 GPA in courses required for the major.

## Lab Fees

All chemistry labs have fees associated with them that must be paid when registering for the course:

CHEM 101, Contemporary Laboratory . . . \$45
CHEM 111LAB, Chemistry Laboratory . . . \$45
CHEM 112LAB, Chemistry Laboratory . . . \$45
CHEM 113LAB, Chemistry Laboratory . . . \$45
CHEM 181LAB, General Chemistry
Laboratory
$\$ 45$
CHEM 182LAB, General Chemistry
Laboratory
$\$ 45$
CHEM 183LAB, General Chemistry Laboratory\$45

CHEM 332LAB, Quantitative Analysis Laboratory\$45

CHEM 345, Environmental Chemistry . . . \$45
CHEM 361LAB, Organic Chemistry Laboratory$\$ 45$

CHEM 363LAB, Qualitative Organic Chemistry Laboratory\$45

CHEM 382LAB, Integrated Physical/
Inorganic Laboratory I ..... \$45

CHEM 383LAB, Integrated Physical/
Inorganic Laboratory II ..... $\$ 45$
CHEM 431LAB, Biochemistry Laboratory ..... \$45
CHEM 452LAB, Instrumental Analysis Laboratory ..... \$45

## CORE REQUIREMENTS FOR ALL

CHEMISTRY DEGREES (Major and Minor)
CHEM 181, 181LAB, 182, 182LAB,
183, 183LAB, General Chemistry
Most courses in chemistry have pre- or co-requisites, so it is very important that you refer to each individual course for this information.

## Bachelor of Arts <br> Chemistry: Teaching Major

This major satisfies the criteria for an endorsement in chemistry. This major qualifies students to teach chemistry at the high school, middle, or junior high levels. Students should seriously consider working toward endorsement in a second area, such as biology, general science, Earth science, physics, or mathematics. Students taking this major are required to complete the Teacher Preparation Program requirements offered through the education department. Students completing this program are required to demonstrate knowledge, skill, and disposition proficiency through a program portfolio prior to student teaching. Students must pass the WEST-E exam for chemistry to receive a chemistry endorsement.

Students are recommended to take MATH 273 before taking CHEM 381.

## Required Courses

General Chemistry and Laboratory Core . . 15
CHEM 181, 181LAB, 182, 182LAB, 183, 183LAB
Analytical Chemistry . . . . . . . . . . . . . . . . . . . 5
CHEM 332, 332LAB - Quantitative Analysis and Laboratory
OR
CHEM 345 - Environmental Chemistry
CHEM 350 - Inorganic Chemistry . . . . . . . . . 3
Organic Chemistry . . . . . . . . . . . . . . . . . . . . . . 8 CHEM 361, 361LAB, 362
CHEM 381 - Physical Chemistry
(Thermodynamics) . . . . . . . . . . . . . . . . . . . . 5
Biochemistry .................................... . . 5
CHEM 431, 431LAB - Biochemistry I and Laboratory
CHEM 488-Colloquium II . . . . . . . . . . . . . . . 1
CHEM 492 - Laboratory Experience in
Teaching Chemistry . . . . . . . . . . . . . . . . . 2
SCED 324 - Science Education in Secondary
Schools
.4
Inquiry Experience (select one) . . . . . . . . . . . 1 CHEM 495 - Senior Research OR
CHEM 496 - Individual Study OR SCED 495 - Research
Introductory Physics or General Physics. . . 15
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB
OR
PHYS 181, 181LAB, 182, 182LAB, 183, 183LAB
Mathematics. . . . . . . . . . . . . . . . . . . . . . . . . . . 15
MATH 172, 173, 272

## Bachelor of Science Chemistry Major

The bachelor of science major is designed for students who plan a career in chemistry or related fields. The program prepares students for further study in graduate programs, or to enter the workplace directly. The BS degree is certified by the American Chemical Society if the nine department-approved electives come from a designated set of upper-division courses within chemistry. Consult your major advisor about department-approved electives. Students are recommended to take MATH 273 before taking CHEM 381.

## Required Courses

General Chemistry and Laboratory Core . . 15
CHEM 181, 181LAB, 182, 182LAB,
183, 183LAB
Quantitative Analysis. . . . . . . . . . . . . . . . . . . . 5 CHEM 332, 332LAB
Organic Chemistry . . . . . . . . . . . . . . . . . . . 13
CHEM 361, 361LAB, 362, 363, 363LAB
CHEM 350 - Inorganic Chemistry . . . . . . . . . 3
CHEM 388-Colloquium I . . . . . . . . . . . . . . . 1
CHEM 431 - Biochemistry I . . . . . . . . . . . . . . 3
CHEM 431LAB - Biochemistry Laboratory . 2
CHEM 452 - Instrumental Analysis . . . . . . . . 3
CHEM 452LAB - Instrumental Analysis Laboratory .2
CHEM 488-Colloquium II . . . . . . . . . . . . . . . . 1
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . 5
MATH 272 - Multivariable Calculus I . . . . . . 5
Physical Chemistry . . . . . . . . . . . . . . . . . . . . . 15
CHEM 381, 382, 382LAB, 383, 383LAB
Introductory Physics or General Physics . . 15
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB
OR
PHYS 181, 182, 182LAB, 183,1 83LAB
Department-approved electives
Total Credits: 102

## Biochemistry Specialization

This specialization is designed for students who plan a career in biochemistry or a related health science area such as medicine or dentistry. Majors may pursue further graduate studies, a career in biotechnology, or a related industry.

Students are recommended to take MATH 273 before taking CHEM 381.

## Required Courses

General Chemistry and Laboratory Core . . 15 CHEM 181, 181LAB, 182, 182LAB, 183, 183LAB
Quantitative Analysis. . . . . . . . . . . . . . . . . . . . 5
CHEM 332, 332LAB
Organic Chemistry . . . . . . . . . . . . . . . . . . . . 13 CHEM 361, 361LAB, 362, 363, 363LAB
Physical Chemistry . . . . . . . . . . . . . . . . . . . . 10
CHEM 381, 382, 382LAB
Biochemistry . . . . . . . . . . . . . . . . . . . . . . . . .
CHEM 431, 431LAB, 432
CHEM 388 - Colloquium I
CHEM 488 - Colloquium II . . . . . . . . . . . . . . . .

BIOL 220 - Introductory Cell Biology . . . . . . 5 OR BIOL 430 - Cell Biology (5)
BIOL 321 - Genetics . 5
BIOL 323 - Microbiology . . . . . . . . . . . . . . . . . . 5
Select one of the following . . . . . . . . . . . . 3-5
CHEM 350 - Inorganic Chemistry (3)
CHEM 383, 383LAB - Physical
Chemistry (5)
CHEM 452, 452LAB - Instrumental Analysis (5)
Introductory Physics or General Physics. . . 15
PHYS 111, 1 11LAB, 112, 112LAB, 113,
113LAB
OR
PHYS 181, 182, 182LAB, 183, 183LAB
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . 5
MATH 272 - Multivariable Calculus I . . . . . . 5
Total Credits: 101-103

## Chemistry Minor

## Required Courses

General Chemistry and Laboratory Core . . 15
CHEM 181, 181LAB, 182, 182LAB,
183, 183LAB
Department-approved upper-division
electives in chemistry

## Chemistry: Teaching Minor

This minor is restricted to students working on a teaching major in biology, earth science, or physics. Students completing this minor are required to demonstrate knowledge, skill, and disposition proficiency through a program portfolio prior to student teaching. Students must pass the WEST-E exam for chemistry to receive a chemistry endorsement.

Required Courses
General Chemistry and Laboratory . . . . . . . 15
CHEM 181, 181LAB, 182, 182LAB,
183, 183LAB
Analytical Chemistry $\qquad$
CHEM 332, 332LAB - Quantitative
Analysis and Laboratory (5) OR
CHEM 345 - Environmental Chemistry (5)
Organic Chemistry and Laboratory . . . . . . . . 8 CHEM 361, 361LAB, 362
Biochemistry and Laboratory . . . . . . . . . . . . . 5 CHEM 431, 431LAB
CHEM 492 - Laboratory Experience in Teaching Chemistry . . . . . . . . . . . . . . . . . . 2

Total Credits: 35

## Chemistry Courses

CHEM 101. Contemporary Chemistry (5). Chemical principles and their application to contemporary problems of human beings and their environment. Four lectures and one laboratory session weekly.

CHEM 111. Introduction to Chemistry (4).
Chemical principles of the compositions, structure, properties, and changes of matter. Designed for students in certain health sciences or preparing for CHEM 181. Four lectures weekly. Not open to students with credits in CHEM 181 or higher.
CHEM 111LAB. Introductory Chemistry Laboratory (1). Introduction to basic chemistry techniques. One two-hour laboratory session weekly. Pre- or corequisite, CHEM 111.
CHEM 112. Introduction to Organic
Chemistry (4). Structure, properties, nomenclature, and reactions of carbon compounds. Four lectures weekly. Prerequisite: CHEM 111 with a grade of C- or better.
CHEM 112LAB. Introduction to Organic Chemistry Laboratory (1). Basic techniques in organic chemistry. One two-hour laboratory session weekly. Prerequisite: CHEM 111LAB with a grade of C- or better. Prerequisite or co-requisite: CHEM 112. One laboratory session weekly.
CHEM 113. Introduction to Biochemistry
(4). Structure, properties, and metabolism of biomolecules. Four lectures weekly. Prerequisite: CHEM 112 with a grade of C- or better.
CHEM 113LAB. Introduction to Biochemistry Laboratory (1). Prerequisite: CHEM 112LAB with a grade of C- or better, prerequisite or co-requisite CHEM 113. One laboratory session weekly.
CHEM 181. General Chemistry I (4). This course introduces chemistry concepts such as atoms and molecules, stoichiometry, solution chemistry, thermochemistry, electronic structure of the atom, and periodicity and chemical bonding. Prerequisites: strongly recommend high school chemistry and qualification for MATH 153 or math placement exam.
CHEM 181LAB. General Chemistry Laboratory I (1). This laboratory supports hands-on, inquiry-based approaches to exploring topics presented in CHEM 181. One three-hour lab session weekly. Pre- or co-requisite, CHEM 181.
CHEM 182. General Chemistry II (4). Builds upon chemical concepts from CHEM 181. Introduces molecular geometry and bonding theories, gas laws, intermolecular forces, solution properties, and chemical kinetics. Four lectures weekly. Prerequisite: CHEM 181 with a grade of C- or better.
CHEM 182LAB. General Chemistry Laboratory II (1). Integrates concepts learned in CHEM 181 and supports handson, inquiry-based approaches to topics presented in CHEM 182. Prerequisite: CHEM 181LAB with a grade of C- or better, pre or co-requisite, CHEM 182. One threehour laboratory session weekly.
CHEM 183. General Chemistry III (4). Builds upon chemical concepts from CHEM 181 and CHEM 182. Introduces chemical equilibria, acid-base chemistry, solubility, entropy, free energy, and electrochemistry.

Prerequisite: CHEM 182 with a grade of Cor better. Four lectures weekly.
CHEM 183LAB. General Chemistry
Laboratory III (1). Integrates concepts introduced in CHEM 181 and CHEM 182 and supports hands-on, inquiry-based approaches to topics in CHEM 183. Prerequisite, CHEM 182LAB with a grade of C- or better, pre- or co-requisite, CHEM 183. One three-hour laboratory session weekly.
CHEM 295. Research (1-6). Permission of instructor.
CHEM 296. Individual Study (1-6). By permission only.
CHEM 298. Special Topics (1-6).
CHEM 332. Quantitative Analysis (3).
Principles of quantitative analytical chemistry including statistical treatment of data, complex equilibria, activity, and volumetric, gravimetric, and instrumental analysis. Prerequisite: CHEM 183, CHEM 183 LAB with a grade of C - or better in each. Co-requisite, CHEM 332LAB.
CHEM 332LAB. Quantitative Analysis Laboratory (2). Accompanying laboratory to qualitative analysis lecture providing practice in quantitative analytical chemistry including statistical treatment of data and volumetric, gravimetric, and instrumental analysis. Prerequisites: CHEM 183, CHEM 183 LAB with a grade of C- or better in each; co-requisite, CHEM 332. Two laboratory sessions weekly.
CHEM 345. Environmental Chemistry (5). Introduction to aquatic, atmospheric, and soil chemistry. Chemical analysis of environmental samples collected on class field trips. Prerequisite: CHEM 183 with a grade of C- or better. Three lectures and six laboratory hours per week.
CHEM 350. Inorganic Chemistry (3). Bonding in small molecules. Includes a review of basic bonding models and a thorough study of molecular orbital theory. Prerequisites: CHEM 183, and PHYS 113, or PHYS 183 with a grade of C - or better in each.
CHEM 361. Organic Chemistry I (3). An introduction to organic chemistry for students majoring in sciences or preparing for health related careers. Organic structures, nomenclature, spectroscopy, and chemistry of alkanes, alkenes, and alkynes. Pre- or co-requisites: CHEM 183 and 183LAB.
CHEM 361LAB. Organic Chemistry Laboratory I (2). An introduction to organic chemistry laboratory techniques including melting point determination, recrystallization, extraction, distillation, chromatography and IR and NMR spectroscopy. Pre- or co-requisite: CHEM 361. Two laboratory sessions weekly.

CHEM 362. Organic Chemistry II (3).
Part two of the organic chemistry series. Stereochemistry, nucleophilic substitution and elimination, chemistry of alcohols, ethers, and an introduction to the chemistry of the carbonyl group. Prerequisite: CHEM 361 with a grade of C- or better.
CHEM 363. Organic Chemistry III (3).
Part three of the organic chemistry
series. Carbonyl alpha-substitutions and condensations and the chemistry of carboxylic acid derivatives, benzene, amines, and carbohydrates. Prerequisites: CHEM 362, and CHEM 361LAB with a grade of C - or better in each.
CHEM 363LAB. Organic Chemistry Laboratory II (2). Application of basic laboratory techniques learned in CHEM 361 LAB to more advanced functional group transformations. Prerequisite: CHEM 361LAB with a grade of $C$ - or better. Pre- or co-requisite: CHEM 363. Two laboratory sessions weekly.
CHEM 381. Physical Chemistry
(Thermodynamics) (5). Prerequisites: CHEM 183, and 183LAB, PHYS 113/113LAB, or PHYS 183/183LAB, and MATH 272 with a grade of C- or better in each. PHYS 183/183LAB, and MATH 273 recommended.
CHEM 382. Physical Chemistry (Quantum Chemistry) (3). Introduction to quantum mechanics as applied to chemical systems. The electronic structure of atoms and molecules. Prerequisite: CHEM 381 with a grade of C - or better.
CHEM 382LAB. Integrated Physical/ Inorganic Laboratory I (2). Synthesis of inorganic compounds and their characterization using physical chemistry methods, with additional experiments in thermodynamics, quantum mechanics, and kinetics. Prerequisite or co-requisite, CHEM 382. Six hours of laboratory weekly.

CHEM 383. Physical Chemistry (Quantum, Statistical Mechanics, Kinetics) III (3). Molecular bonding, introduction to statistical mechanics, phenomenological kinetics. Prerequisite: CHEM 382 with a grade of C- or better.
CHEM 383LAB. Integrated Physical/ Inorganic Laboratory II (2). Synthesis of inorganic compounds and their characterization using physical chemistry methods, with additional experiments in thermodynamics, quantum mechanics and kinetics. Prerequisite: CHEM 382LAB with a grade of C - or better, pre or co-requisite, CHEM 383. Six hours of laboratory weekly.
CHEM 388. Colloquium I (1). Students prepare a poster on a current topic in chemistry. May be from a research experience or from a review of the chemistry literature. Prerequisite: 25 credits of chemistry.
CHEM 395. Research (1-6). By permission only.
CHEM 431. Biochemistry I (3). Chemical structure, physical properties, nomenclature and function of proteins, carbohydrates, lipids, nucleic acids, and biological membranes. Protein function includes membrane transporters and enzyme kinetics, inhibition, and regulation. Prerequisite: CHEM 362 with a grade of C - or better.
CHEM 431LAB. Biochemistry Laboratory (2). Quantitative and qualitative biochemical techniques applied to proteins and nucleic
acids. Prerequisites: CHEM 361LAB with a grade of C - or better, pre or co-requisite CHEM 431. Two laboratory sessions weekly.
CHEM 432. Biochemistry II (3). Metabolism of carbohydrates, lipids, amino acids, and nucleotides including metabolic regulation and thermodynamics. Prerequisite: CHEM 431 with a grade of C- or better.
CHEM 452. Instrumental Analysis Lecture (3). Theory and functional aspects of modern analytical instrumentation. Emphasis is on components of instruments, limitations of measurements, and applicability of techniques to specific analytical problems. Prerequisites: CHEM $332,332 \mathrm{LAB}$ with a grade of C- or better, co-requisite, CHEM 452LAB.
CHEM 452LAB. Instrumental Analysis Laboratory (2). Accompanying laboratory to Instrumental Analysis lecture providing hands-on experience with a number of instrumental methods used in modern chemical research, analysis, and process control. Prerequisites: CHEM 332, CHEM 332LAB; co-requisite, CHEM 452. Two laboratory sessions weekly.
CHEM 473. Transition Metal Chemistry (3). A survey of the structure, spectroscopy, and characterization of transition metal compounds, and the electronic structures of transition metals and lanthanides. Prerequisites: CHEM 350, and CHEM 382 with a grade of C - or better in each.
CHEM 488. Colloquium II (1). Students prepare an oral presentation on a current topic in chemistry. May be from a research experience or from a review of the chemistry literature. Prerequisite: CHEM 388 with a grade of C- or better. May be repeated.
CHEM 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
CHEM 491. Workshop (1-6).
CHEM 492. Laboratory Experience in Teaching Chemistry (2). Integrates both chemistry and education in order to guide teaching assistants into hands-on, inquiry-based approaches to learning in the laboratory environment. Prerequisite: 10-15 credit hours in college chemistry and permission of the instructor. Additional time to be assigned. May be repeated for credit with permission of the department chair. Grade will be $S$ or $U$.
CHEM 495. Senior Research (1-6). By permission only.
CHEM 496. Individual Study (1-6). By permission only.
CHEM 498. Special Topics (1-6).
CHEM 499. Seminar (1-5). Students do literature research of a chemical topic and make a presentation to the department. May be repeated once for credit.

## COMPUTER SCIENCE DEPARTMENT

Ellensburg
Hebeler Hall, room 219
509-963-1495
Fax: 509-963-1449
www.cwu.edu/ ~cs_dept
See Web site for how the computer science programs could be used for educational and career purposes.

## Faculty and Staff

Chair
James Schwing, PhD

## Professors

Boris Kovalerchuk, PhD, artificial intelligence, simulation and optimization, computer architecture
James Schwing, PhD, parallel algorithms, user interface design, computer graphics, computer-aided design

## Associate Professors

Razvan Andonie, PhD, neural networks, parallel and distributed computing, computational intelligence, data mining
Edward Gellenbeck, PhD, user interface design, Web development, software engineering
Frances Modave, PhD, intelligent systems, data analysis, applications to biology

## Staff

Charlene Andrews, secretary
Fred Stanley, systems analyst

## Department Information

The Department of Computer Science (CS) offers a degree program leading to the bachelor of science in computer science. The department also jointly offers a program with the industrial engineering technology (IET) department in the College of Education and Professional Studies in computer engineering technology. Information related to the computer engineering technology program can be found in the IET section of the catalog.

The field of computer science can trace its beginnings and much of its foundation to both mathematics and engineering. Because of this, studies in computer science range from theory through experimental techniques to engineering methodology. The purpose of the computer science curriculum is to expose students to aspects of each of these disciplines and foster an appreciation and understanding of them. To accomplish this, students are exposed to the broad theoretical basis of computer science as well as a strong laboratory component. The laboratory experience is more than simple programming. Rather, it is through the laboratories that students are introduced to both the experimental and the design aspects of computer science.

Using this philosophy as a base, the CS department has designed a curricular model that seeks to increase relevance to the real world. In particular, the senior project, a capstone course series-CS 480 and 481-adopts a theme that expands upon the experimental and design approach of typical computer science curricula. This capstone series addresses the creativity and productivity elements required for business and industry applications today. Students become engaged in projects that investigate each stage of transforming a creative idea into a productivity-enhancing system in a realistic context.

## Standards for Admission

Admission to the computer science major or minor is selective. A cumulative grade point average of 2.5 is required in the pre-admission requirements listed below. Students should submit their application during the quarter in which they are completing the pre-admission requirements. Applications will be accepted through the last day of classes (i.e., the week before finals) of the fall, winter, and spring quarters for admission the following quarter. A completed application must include the standard major application form and an advisor-approved graduation plan.

Students should request admission to the computer science pre-major prior to completion of the pre-admission requirements.

Students must be accepted as a computer science major or minor prior to enrolling in computer science classes beyond CS 301 with the exception of CS 311. Students applying for admission to the major may register for courses for the following quarter but will be dropped if not admitted.

The computer science department believes that advising is one of the keys to success in an undergraduate program. To that end, majors and minors are required to meet with a faculty advisor every term in order to register. Pre-majors are also encouraged to meet with their designated faculty advisor each term. Advisors and advising times are listed with the CS office.

## Pre-admission Requirements

General University Requirements
ENG 101, Composition I: Critical Reading and Responding. . . . . . . . . . . . . . . . . . . . . .
ENG 102, Composition II: Reasoning and Research

## CS Core Requirements

CS 110, Programming Fundamentals I . . . . . 4
CS 111, Programming Fundamentals II . . . . . 4
CS 301, Data Structures . . . . . . . . . . . . . . . . . . 4
MATH 172, Calculus I . . . . . . . . . . . . . . . . . . . 5
Pre-admission Total Credits: 25

## Bachelor of Science Computer Science Major

In order to expose computer science majors to a broad theoretical base while emphasizing the laboratory experience, students will complete the CS core courses. To add depth and flexibility to their academic programs, students will work out a focus area with a major advisor. A specific focus may be developed in many areas of computer science; examples include: artificial intelligence, computer systems, information systems, scientific computing, and software engineering. A table of possible sequences for focus area electives follow the core requirements.

## Required Courses

Major Core Requirements . . . . . . . . . . . . . . 17
CS 112 - Foundations of Computer Science . 4
CS 302 - Advanced Data Structures and
File Processing
CS 311 - Computer Architecture I . . . . . . . . . 4
CS 312 - Computer Architecture II . . . . . . . . . 4
CS 325 - Technical Writing in Computer
Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS 361 - Principles of Language Design I . . . 4
CS 362 - Principles of Language Design II . . 4
CS 392 - Lab Experience in Teaching
Computer Science . . . . . . . . . . . . . . . . . . . . 1
CS 420 - Database Management Systems . . . 4
CS 427 - Algorithm Analysis . . . . . . . . . . . . . . 4
CS 446 - User Interface Design and
Development
. 4
CS 470 - Operating Systems . . . . . . . . . . . . . . 4
CS 480 - Software Engineering . . . . . . . . . . . . . 4
CS 481 - Software Engineering Project ..... 4
CS 489 - Senior Colloquium . . . . . . . . . . . . . . 1
CS 492 - Laboratory Experience in
Teaching Computer Science . . . . . . . . . . . . 2
MATH 260 - Sets and Logic . . . . . . . . . . . . . . 5
MATH 330 - Discrete Mathematics . . . . . . . . 5
Focus Area Electives . . . . . . . . . . . . . . . . . . . 24
Total Credits: 106

## Focus Area Electives List

Students may use additional courses as their focus area electives with the approval of their major advisor.

ACCT 251 - Accounting I (5)
ACCT 252 - Accounting II (5)
BUS 221 - Introductory Business Statistics (5)
CS 350 - Web Development Technologies I (4)
CS 370 - Introduction to the UNIX Operating System (4)
CS 440 - Computer Graphics (4)
CS 441 - Computer Graphics II (4)
CS 450 - Computer Network and Data
Communications (4)
CS 455 - Artificial Intelligence (4)
CS 456 - Data Mining (4)
CS 457 - Computational Intelligence (4)
CS 458 - Artificial Intelligence Project (2)
CS 473 - Parallel Computing (4)
CS 490 - Cooperative Education (1-12)
(Maximum of 4 credits)

CS 496 - Individual Study (1-6)
ECON 201 - Principles of Economics Micro (5)
EET 221 - Basic Electricity (5)
EET 312 - Basic Electronics (5)
EET 371 - Digital Circuits (4)
EET 372 - Advanced Digital Circuits (4)
EET 375 - Microprocessor Applications (4)
MATH courses at or above the level of 173
MIS 386 - Management Information Systems (5)

## Possible Focus Area Sequences

The table below summarizes typical focused sequences taken by students.

| AIS - Artificial Intelligence |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sys - Computer Systems |  |  |  |  |  |  |
| IS - Information Systems |  |  |  |  |  |  |
| Sci-Scientific Computing |  |  |  |  |  |  |
| SW - Software Design and Engineering Web - Web Development |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | AIS | Sys | IS | Sci | SW | Web |
| CS 350 |  |  |  |  | X | X |
| CS 351 |  |  |  |  |  | X |
| CS 352 |  |  |  |  |  | X |
| CS 440 |  |  |  |  | X |  |
| CS 450 |  |  |  |  | X | X |
| CS 455 | X |  |  |  |  |  |
| CS 456 | X |  | X |  | X | X |
| CS 458 | X |  |  |  |  |  |
| CS 473 |  |  |  |  | X |  |
| CS 490 |  |  |  |  | X | X |
| EET 221 |  | X |  |  |  |  |
| EET 312 |  | X |  |  |  |  |
| EET 371 |  | X |  |  |  |  |
| EET 372 |  | X |  |  |  |  |
| EET 375 |  | X |  |  |  |  |
| MATH 173 | X | X |  | X |  |  |
| MATH 265 | X |  |  | X |  |  |
| MATH 272 |  |  |  | X |  |  |
| MATH 273 |  |  |  | X |  |  |
| MATH 311 | X |  |  |  |  |  |
| MATH 376 |  |  |  | X |  |  |
| MATH 412 |  |  |  | X |  |  |
| ACCT 251 |  |  | X |  |  |  |
| ACCT 252 |  |  | X |  |  |  |
| ECON 201 |  |  | X |  |  |  |
| BUS 221 |  |  | X |  |  |  |
| MIS 386 |  |  | X |  |  |  |

## Computer Science Minor

This minor is designed for students who wish to investigate the basic core of the computer science discipline. This minor is appropriate for any student, including those in teacher education, seeking to enhance their technical computer science background.

## Required Courses

CS 110 - Programming Fundamentals I .... 4
CS 111 - Programming Fundamentals II . . . . 4
CS 301 - Data Structures . . . . . . . . . . . . . . . . . 4
CS 311 - Computer Architecture I . . . . . . . . . 4
MATH 130 - Finite Mathematics . . . . . . . . . . 5
MATH 154 - Pre-Calculus Mathematics II . . 5
MATH 260 - Sets and Logic . . . . . . . . . . . . . . 5
Total Credits: 31

## Applied Computer Science Minor

This minor is designed for students who wish to integrate a computer science component into their curriculum. This minor is appropriate for any student who wishes to include an enhanced technical computer science background as part of their overall curriculum.

## Required Courses

CS 110 - Programming Fundamentals I . . . . 4
CS 111 - Programming Fundamentals II . . . . 4
CS 301 - Data Structures . . . . . . . . . . . . . . . . . 4
MATH 130 - Finite Mathematics . . . . . . . . . . . 5
BUS 221 - Introductory Business Statistics . . 5 OR
MATH 154 - Pre-Calculus
Mathematics II (5)
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . .12-14
At least one course will be in computer science. The other electives will be computer related and may be selected from the student's major with the approval of an advisor.

Total Credits: 34-36

## Computer Science Courses

CS 101. Computer Basics (4). Integrated project-based course using studentproduced working materials in the form of a mini thesis. Microsoft Office tools are learned in a Web-based practical application environment. Prerequisite: high school or college algebra.
CS 105. The Logical Basis of Computing (4). Problem solving; algorithm development; complexity; computability. Representation of algorithms as computer programs; data; decision and control; inherent sources of error.
CS 110. Programming Fundamentals I (4). Fundamental concepts of programming from an object-oriented perspective. Classes, objects and methods, algorithm development, problem-solving techniques, basic control structures, primitive types and arrays.
CS 111. Programming Fundamentals II (4). Continuation of object-oriented programming concepts introduced in CS 110. Inheritance, exceptions, graphical user interfaces, recursion, and data structures. Prerequisites: CS 110, MATH 153.
CS 112. Foundations of Computer Science (4). Overview of the computer science profession including basic computer organization, algorithm development and analysis, computer data representation, computer applications and social issues.
CS 290. Cooperative Education (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.

CS 298. Special Topics (1-6)
CS 301. Data Structures (4). Introduction to data structures, simple list processing, basic searching and sorting techniques, stacks, queues, and trees. Prerequisites: CS 111, MATH 154.
CS 302. Advanced Data Structures and File Processing (4). Sequential, random access and indexed file organizations; B-trees; external searching and sorting; I/O buffering. Prerequisites: CS 301, and MATH 172.

CS 311. Computer Architecture I (4). Introduction to computer architecture, data representations, assembly language, addressing techniques. Prerequisite: CS 112.
CS 312. Computer Architecture II (4). Introduction to the structure of computers. Digital circuits, central processing units, memory, input/output processing, parallel architectures. Prerequisites: CS 301 and CS 311.

CS 325. Technical Writing in Computer Science (3). Writing and editing technical material in computer science. Prerequisites: ENG 102 and CS 301.
CS 350. Web Development Technologies I (4). Client-side techniques for World Wide Web software development including XHTML, style sheets, scripting languages, Web databases, XML, and ethical issues related to the Web. Prerequisite: CS 301.
CS 351. Web Development Technologies II (4). Server-side technologies for World Wide Web software development including programming languages, database access, e-commerce, testing, and ethical issues related to the Web. Prerequisite: CS 350.
CS 352. Web Development Technologies III (4). Advanced technologies for World Wide Web software development including XML and its related technologies: DTD, XML Schema, XSL, and XSLT and other emerging technologies. Prerequisite: CS 351.
CS 361. Principles of Language Design I (4). Topics will include evolution of programming languages, syntax and semantics, bindings, scoping, data types, assignment, control, and subprograms. Prerequisite: CS 302.
CS 362. Principles of Language Design II (4). Topics will include abstract data types, parallel processing, object-oriented programming, exception handling functional programming, and logic programming. Prerequisites: CS 361 and MATH 260 (can be taken concurrently).
CS 367. Advanced Visual Basic Programming
(4). Visual basic programming and applications. Topics will include advanced data structures, error trapping and debugging, advanced VB and ActiveX controls, macros and databases. Not intended for CS majors.
CS 370. Introduction to the UNIX Operating System (4). The fundamental requirements, features, and functions of the UNIX operating system. A UNIX-compatible OS will be used as a working model. Installation, configuration, setup, shell
operations, and program development with the UNIX operating system. Prerequisites: CS 301 and CS 311.
CS 392. Lab Experience in Teaching Computer Science (1). Supervised experience in developing procedures and techniques in teaching computer science. Prerequisite: CS 301 and permission of department. Grade will be S or U .
CS 420. Database Management Systems (4). Logical aspects of database processing; concepts of organizing data into integrated databases; hierarchical, network, and relational approaches. Prerequisites: CS 302, CS 325 and MATH 330.
CS 427. Algorithm Analysis (4). Topics will include basic algorithmic analysis, algorithmic strategies, fundamental computing algorithms, basic computability, the complexity classes P and NP, and advanced algorithmic analysis. Prerequisites: CS 302, CS 325, and MATH 330 (minimum grade of C).
CS 430. Introduction to Computer Security (4). Introduction to the principles of computer security. Discussion of threats, intrusion, trust, protection, access control and cryptography and implementation of security, confidentiality and integrity policies. Prerequisite: CS 312.
CS 440. Computer Graphics (4). Graphic I/O devices; two-dimensional and threedimensional display techniques; display processors; clipping and windowing; hidden line removal; data structures for graphics. Prerequisite: CS 302 and CS 325.
CS 441. Computer Graphics II (4). Advanced graphics in 3-D with vector tools.
Topics include: transformations, affine transformations, changing coordinate system, drawing scenes, modeling shapes, solid modeling, and smooth objects. Prerequisite: CS 440.
CS 442. Computer Vision (4). Computer vision includes image acquisition, preprocessing, segmentation (thresholding, edge- and region-based segmentation), shape representation, object recognition, motion analysis, object tracking, and 3-D scene reconstruction. Prerequisite: CS 302.
CS 446. User Interface Design and Development (4). The relationship of user interface design to human-computer interaction. Types of user interfaces, methods of evaluation, user-centered design and task analysis, programming tools and environments, and hardware devices. Prerequisites: CS 301, CS 325, and MATH 311 or BUS 221.
CS 450. Computer Network and Data Communications (4). Device protocols; network configurations; encryption; data compression and security; satellite networks. Prerequisites: CS 301, CS 311, and CS 325.
CS 455. Artificial Intelligence (4). Introduction to the principles of artificial intelligence. Pattern matching, knowledge representation, natural language processing, expert systems. Prerequisites: CS 302, CS 325, CS 362 and MATH 330.

CS 456. Data Mining (4). Data mining methods for discovering hidden patterns in large databases and data warehouses with applications in business, science, and engineering. Prerequisites: CS 420 or permission of instructor and MATH 311 or BUS 221.
CS 457. Computational Intelligence (4). Introducing concepts, models, algorithms, and tools for development of intelligent systems: artificial neural networks, genetic algorithms, fuzzy systems, swarm intelligence, and hybridizations of these techniques. Prerequisites: CS 302, CS 325, CS 362, and MATH 330.
CS 458. Artificial Intelligence Project
(2). Implementation of a significant project relating to artificial intelligence. Prerequisite: CS 325 and CS 455.
CS 463. Design Patterns (4). Design patterns are reusable solutions to common problems when engineering computer software. Topics include the command pattern, visitor pattern, strategy pattern, and factory pattern. Prerequisite: CS 302.
CS 465. Compiler Design (4). Theory of compiler construction and computer language design; students write a compiler. Prerequisites: CS 325 and CS 362.
CS 470. Operating Systems (4). Topics will include principles of operating systems, concurrency, scheduling and dispatch, memory management, processes and threads, device management, security and protection, and file systems. Prerequisites: CS 302, CS 312, and CS 325.
CS 473. Parallel Computing (4). Major parallel architectures and languages. Parallel programming methodologies and applications. Prerequisites: CS 325 and CS 470.

CS 474. Peer-to-Peer Systems (4). The course gives a broad overview of current techniques used within peer-topeer distributed systems. Peer-to-peer mechanisms can be used to access any kind of distributed resources and offer new possibilities for Internet-based applications. Prerequisite: CS 302.
CS 480. Software Engineering (4). The software development process: user requirements, specifications, design, coding, testing, maintenance, documentation and management; students work in teams to develop large software projects. Prerequisites: CS 325, CS 420 and senior standing.
CS 481. Software Engineering Project
(4). Continuation of coding, testing, and implementation phases of project begun in CS 480. Prerequisites: CS 325 and CS 480.
CS 489. Senior Colloquium (1). Introduction to research in computer science through investigation of ethical and historical topics in the field. End-of-major assessment activities. Prerequisites: CS 325 and senior standing.
CS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or
social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
CS 491. Workshop (1-6). The title of the workshop and the credits shall be determined at the time the workshop is approved. Designed to give an opportunity for individual and group study of special areas of computer applications. With the approval of department chair, course may be designed for regular letter grade or $S$ or U , depending upon course objectives and methods of instruction.
CS 492. Laboratory Experience in Teaching Computer Science (1-2). Supervised progressive experience in developing procedures and techniques in teaching computer science. Prerequisites: CS 302, CS 392, and permission. May be repeated to a maximum total of 15 credits. Grade will be S or U.
CS 493. Practicum (1-5). Supervised
progressive experience in management, operation, programming or systems work in one of the university's computing centers. Prerequisites: 15 credits in CS and permission.
CS 496. Individual Study (1-6). Prerequisite: permission of instructor.
CS 498. Special Topics (1-6).
CS 499. Seminar (1-5).

## GEOGRAPHY DEPARTMENT

Ellensburg
Dean Hall, room 301

## 509-963-1188

Fax: 509-963-1047
www.cwu.edu / ~geograph
See Web site for how this major could be
used for educational and career purposes.

## Faculty and Staff

Chair
James Huckabay, PhD

## Professors

Anthony Gabriel, PhD, hydrology, lake and river ecosystems, coastal and wetlands management
Robert Hickey, PhD, environmental impacts, coastal zones, GIS, Australia
James Huckabay, PhD, energy resources, climatology, resource conflict management, Europe
Nancy Hultquist, PhD, economic and urban geography, GIS, computer cartography, remote sensing
Robert Kuhlken, PhD, land-use planning, cultural ecology, historical geography, Oceania

Karl Lillquist, PhD, physical geography, geomorphology, soils, environmental change in arid and alpine watersheds Morris Uebelacker, PhD, human geography, Yakima River basin, field methods

## Associate Professors

Gregory Brown, PhD, environmental studies, land-use planning, GIS, Australia

## Assistant Professors

John Bowen, PhD, economic geography, transportation geography, Asia
Jennifer Lipton, PhD, cultural ecology, remote sensing, climate change, Latin America
Michael Pease, water resources, watershed planning and analysis, North America
Craig Revels, PhD, cultural-historical geography, landscape, Latin America

## Senior Lecturer

Elaine Glenn, MS, political geography, world regional geography, Middle East

## Lecturer

Clay Arango, PhD, environmental geography, field methods, aquatic landscapes

## Emeritus Faculty

Joel M. Andress, PhD
James Brooks, PhD
Dee Eberhart, MA
Kenneth Hammond, PhD
Martin Kaatz, PhD
George Macinko, PhD
John Ressler, PhD

## Staff

David Cordner, instructional technician
Marilyn Mason, secretary senior

## Department Information

An understanding of geography is integral to an educated person's ability to live and act effectively in today's changing world. A broad range of factors (human and physical, natural and technological) is at work shaping the future of our planet, and it is the mission of the Department of Geography to

prepare students to be active participants in that rapidly developing future. Geography's traditional concern with the interrelatedness of natural and human environments and reasons for their differences from place to place, provides important insights into many of the complex problems facing society today.

The department stresses flexibility in the selection of course sequences for majors and encourages study in related departments among the social and natural sciences. We are active participants in the following university programs: Environmental Studies, Energy Studies, Asia/Pacific Studies, Latin American Studies, International Studies and Programs, and the Resource Management Graduate Program. The department also maintains a well-appointed Geographic Information Systems (GIS) laboratory which benefits majors from other programs in addition to geography.

If you choose to major in geography, you will be required to take a core sequence of six courses. Beyond those core classes, you may then select, with guidance from a faculty advisor, a coherent sequence of coursework in geography and related fields that will best enable you to achieve your goals in life. Graduates from our program work in positions as diverse as middle school teacher, avalanche forecaster, highway or urban planner and GIS supervisor, and many of them continue on to graduate school.

The department is committed to a liberal education as well as to professional training pertaining to resource planning and environmental management. In meeting those commitments, we offer the geographer's way of "seeing" the interrelationships of human life and habitat. Our students learn to see a holistic Earth and its many componentsenvironmental and social-along with the processes that shape them. The department encourages imagination and creativity, while providing our graduates with the skills necessary to deal with issues, at scales ranging from local to global.

All students who wish to major in geography must:

1. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
2. Apply for acceptance into the geography major
3. Upon acceptance into the program, meet with their assigned advisor to develop a major contract
4. Earn a C or better grade in each of the courses in their major contract

## Geography Core Requirements

GEOG 101 - World Regional Geography . . . 5
GEOG 107 - Introduction to Physical Geography
GEOG 108 - Introduction to Human Geography .5

GEOG 203 - Introduction to Maps and Cartography4
GEOG 250 - Natural Resource
Conservation ..... 4
GEOG 489 - Geography Capstone .....  2
Geography Core Total Credits: 25

The geography major includes two options: BA - 45 credits, and BA - 60 credits.

## Bachelor of Arts <br> Geography Major ( 45 credits)

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

The major of 45 credits is recommended for students who wish to develop a broad knowledge of geography yet retain the overall flexibility to prepare themselves for a variety of employment opportunities or graduate study. Students taking this major are required to have a second major.

## Required Courses

Geography Core Requirements . . . . . . . . . . 25
Department approved electives . . . . . . . . . . 20
Must include an upper-division geography course in each of the five subfields: regional, physical, human, resource, and techniques.

Total Credits: 45

## Bachelor of Arts <br> Geography Major (60 credits)

(NOTE: Students seeking a BA degree must complete one year college / university study or two years high school study of a single foreign language.)

This major of 60 credits is intended for students who wish to develop depth and breadth in a particular portion of geography in preparation for a career or graduate study in geography. Students may choose one of several areas of emphasis within the geography major.

Areas of emphasis include: geotechniques, global and area studies, physical geography, urban and regional planning, and environmental / resource geography. Recommended electives for each of these emphases are listed on the department's Web page. In consultation with a departmental advisor, students may choose a specialization and design a program of component courses which best fits specific career goals and aspirations.

## Required Courses

Geography Core Requirements. . . . . . . . . . . 25
Department-approved electives . . . . . . . . . . . 35
Must include one upper-division geography course in each of the five subfields: regional, physical, human, resource, and techniques.

Total Credits: 60

## Geography Minor

All students who wish to minor in geography must:

1. Apply for acceptance into the geography minor
2. Have a 2.25 minimum GPA in all coursework taken up to the time of admission
3. Earn a C or better grade in each of the courses required for the minor

## Required Courses

GEOG 101 - World Regional Geography ... 5
GEOG 107 - Introduction to Physical
Geography
GEOG 108 - Introduction to Human Geography5

GEOG 203 - Introduction to Maps and Cartography4

GEOG 250 - Natural Resource
Conservation
Any upper-division geography courses .... 7
Total Credits: 30

## Geographic Information Systems (GIS) Certificate

The GIS certificate provides recognition for students completing the required number of GIS-related classes ( 27 credits) at a high level of competence (minimum average GPA of 2.7). Certification will provide students with a powerful tool to assist their future job searches.

## Required Courses

GEOG 303 - Introductory GIS .............. . . 5 OR
GEOG 403 - Introductory GIS (5)
GEOG 404 - Intermediate GIS
GEOG 410 - Airphoto Interpretation . . . . . . . 4
GEOG 430 - Remote Sensing . . . . . . . . . . . . . 5
Choose from the following electives*. . . . . . . 8
CS 301 - Data Structures (4)
GEOG 409 - Quantitative Methods in Geography (5)
GEOG 413 - Computer Cartography (4)
GEOG 417 - Advanced GIS (4)
GEOG 485 - Topics in GIS and Remote Sensing (4)
GEOG 490 - Cooperative
Education (1-12)
GEOG 493 - Geography Field
Experience (1-12)
GEOG 496** - Individual Study (1-6)
Other electives as approved by the director

Total Credits: 27
*A minimum of 8 credits taken from the list of electives at least 4 credits of which must be a GIS class. All electives must be approved by the certificate director.
**Students may also take Advanced GIS or Introduction to Visual Basics for ESRI Software as 1 credit GEOG 496 classes up to a maximum of 4 classes (both to CWU and ESRI).

## Geography Courses

GEOG 101. World Regional Geography (5). Regions and nations of the world together with the changing elements of the physical and human environment that support them.
GEOG 107. Introduction to Physical Geography (5). The complex weather, climate, water, landforms, soils, and vegetation comprising Earth's physical environments over space and time.
GEOG 108. Introduction to Human Geography (5). Distribution and spatial variation of population, settlement patterns, cultural elements of language, religion, and lifeways, and the economic and political organization of the planet.
GEOG 203. Introduction to Maps and Cartography (4). Basic introduction to the principles of cartographic communication. Emphasis on using and understanding a wide variety of general purpose, topographic, and thematic map types.
GEOG 215. Concepts of GIS (3). Basic principles and uses of geographic information systems (GIS). Practice with the use of GIS in solving land management and evaluation problems. Two hours lecture and four hours laboratory per week. GEOG 215 and ANTH 215 are equivalent courses. Students may not receive credit for more than one.
GEOG 250. Natural Resource Conservation (4). The meaning of resources and conservation; population growth and its implications for land management, public control, and environment quality; attitudes regarding the use of resources; conservation thought and activities in the United States.
GEOG 265. Geography of the African Diaspora (5). Examination of the physical and cultural geography, humanenvironment interactions, landscapes, and regional diversity of the African Diaspora.
GEOG 273. Geography of Rivers (5). Global, regional, and local physical and cultural patterns and processes within river basins.
GEOG 279. Geography of the (1-12). In-depth field examination of the complex physical, human, and resource issues of one or more of the varied subregions of western North America. May be repeated for up to 12 credits by permission of department chair.
GEOG 290. Cooperative Education Field Experience (1-5). Individualized field experience with business industry government or other agency. Requires a student-learning plan, cooperating employer supervisor, and faculty coordinator. Prerequisite: at least 45 completed credits, sophomore standing. Maximum of 10 credits total.
GEOG 303. Introductory GIS (5). Students will be given a computer literacy test during the first week of class. Continued enrollment is dependent on passing the course. Applications, scope, and benefits of Geographic Information Systems (GIS). Classification and components of GIS; data acquisition; data management; data errors;
implementation considerations; applied experience using GIS software. Prerequisite: computer literacy, and permission of the instructor.
GEOG 304. Economic Geography (5).
Geographic survey of human livelihood and interaction with the environment.
Agriculture, industry, and urbanization are examined in the context of an increasingly interdependent world system.
GEOG 305. Introduction to Land Use Planning (5). Investigation into the process and practice of urban and regional planning. Emphasis on historical development, legal foundations, and techniques of planning in the United States.
GEOG 308. Cultural Geography (5).
Consequences of cultural diversity in the human occupation of the earth and the interactions of human and natural systems.
GEOG 310. Introduction to Landscape
Analysis (5). Application of concepts and techniques of landscape analysis. Specific landscapes are analyzed utilizing various techniques including remotely sensed imagery, historical records, and field observation and measurement.
GEOG 346. Political Geography (4). The spatial structure of political units. The effect of political, economic, social, and Earth resource factors on the areas, shapes, and boundaries of these units, and on the distribution of populations and institutions.
GEOG 352. Geography of North America
(5). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of the United States, Canada, and Mexico.
GEOG 355. Geography of the Pacific
Northwest (4). Examination of the physical and cultural geography, human environment interactions, landscapes, and regional diversity of the Pacific Northwest.
GEOG 361. Soils (5). Focus on properties, factors, processes, and classifications of Earth's soils, past and present. Prerequisite: GEOG 107 or instructor's permission. Four hours of lecture and four hours of field/ laboratory per week. GEOG 361 and GEOG 461 are equivalent courses. Students may not receive credit for both.
GEOG 365. Geography of Africa (5). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Africa, with an emphasis on Subsaharan Africa.
GEOG 366. Geography of the Middle East (5). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of the Middle East.
GEOG 371. Geography of Europe (5). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Europe.
GEOG 373. Water Resources (4). Foundation course for understanding the physical and
social dimensions of water resource use on a global scale. Special attention paid to issues in the American West. No prerequisites but GEOG 107 is recommended.
GEOG 379. Geography of the West (1-12). In-depth field examination of the complex physical, human, and resource issues of one or more of the varied subregions of western North America. May be repeated for up to 12 credits.
GEOG 382. Hydrology (5). Provides a comprehensive introduction to both the global and local hydrologic cycle. Covers constituent processes, their measurements and quantitative relationships, plus basic water quality parameters. GEOG 382 and GEOG 482 are equivalent courses. Students may not receive credit for both.
GEOG 386. Geomorphology (5). Descriptive and interpretive examination of the earth's land forms. Prerequisites: GEOG 107 or GEOL 101 or GEOL 102 and GEOL 101L. Four lectures and three hours laboratory or field trips. GEOG 386 and GEOL 386 are equivalent courses. Students may not receive credit for both.
GEOG 388. Climatology (5). Elements, factors, and processes affecting Earth's climates, present, past, and future. Prerequisite: GEOG 107 or instructor's permission. Four hours lecture and two hours laboratory / field per week. Course fee required.
GEOG 389. Ecosystems Geography (5). Investigates the functional relationships between biophysical processes and their spatial and temporal patterns at various scales. Introduces approaches to land systems analysis focusing upon ecosystems.
GEOG 398. Special Topics (1-6).
GEOG 399. Seminar (1-5).
GEOG 404. Intermediate GIS (5). Applied concepts, principles, and operation of fundamental GIS applications, including raster-vector data models, topology, digitizing, and various analytical techniques such as overlay, buffers, and Boolean queries. Lecture and practical applications. Prerequisite: GEOG 303/403 or permission. GEOG 404, ANTH 404, and GEOL 404 are equivalent courses. Students may not receive credit for more than one.
GEOG 405. Advanced Topics in Land Use Planning (3). Selected issues and problems in land use planning and environmental control. Topics may include growth management, small town and rural planning, or coastal zone management. Prerequisite: GEOG 305. May be repeated for credit.
GEOG 408. Advanced Topics in Human Geography (3). Focuses on the content of GEOG 308 in greater detail with particular emphasis on land use in non-industrial societies. Topics will vary, consult with instructor.
GEOG 409. Quantitative Methods in Geography (5). Quantitative analysis assessment in geography and resource management. Emphasis on spatial statistics.

Prerequisite: MATH 130; equivalent transfer or HS credit.
GEOG 410. Airphoto Interpretation (4). Introduction to airborne photography and the tools and techniques to apply this photography to geographical issues. Prerequisite: instructor's permission. Three hours lecture and two hours laboratory per week. Course fee required.
GEOG 413. Computer Cartography (4). Computerized mapmaking basics of contour, choropleth, 3-D, and other thematic maps from digitizing to final color product. Applied experience using cartographic software. Prerequisite: permission of instructor.

## GEOG 415. Geography of Oceania

(3). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Australia, New Zealand, and the Pacific Islands.
GEOG 417. Advanced GIS (4). Advanced GIS principles, techniques, analysis, and application. Lecture and practical handson experience. Applied experience using GIS software. Prerequisite: GEOG 404, ANTH 404, or GEOL 404, or permission of instructor. GEOG 417, ANTH 417, and GEOL 417 are equivalent courses. Students may not receive credit for more than one.
GEOG 422. Geography of Food and Agriculture (5). Overview of food and agriculture as it relates to specific geographic regions, production regimes, trade, and cuisine. Domestic and international issues explored through lecture and field study.
GEOG 425. Field Methods in Geography (5). Theory of, and practice in, geography field methods via in-depth field research projects. Topics include field observation, data collection, and data interpretation. Prerequisite: permission of instructor. Two hours lecture and five hours field per week.
GEOG 427. Environmental Archaeology (4). Analyses of sediments and plant and animal remains from archaeological sites are used to explore relationships between humans and their environments. Case studies combine natural and physical sciences to study long-term change in landscapes and ecosystems. Prerequisites: ANTH 120 or GEOG 107 or permission of the instructors. ANTH 427/527 and GEOG $427 / 527$ are equivalent courses. Graduate credit requires an additional research paper to be specified in syllabus.
GEOG 430. Remote Sensing (5). Principles of acquisition, analysis, and use of remotely sensed data (LANDSAT, SPOT, Ikonos, etc.). Applied experience using image processing software. Prerequisites: GEOG 410 or GEOL 210, or permission of instructor. Three hours lecture and three hours laboratory per week. GEOG 430, GEOL 430, and GEOL 530 are equivalent courses. Students may not receive credit for more than one course.
GEOG 440. Ecology and Culture (4).
Investigation into interdependent
environmental and human cultura systems. Traditional agroecologies and subsistence strategies; contemporary problems of resource management, social equity, political ecology, and sustainable development. GEOG 440 and ANTH 440 are equivalent courses. Students may not receive credit for both.
GEOG 442. Alternative Energy Resources and Technology (5). Overview of energy systems, with focus on wind, biomass, solar, biodiesel, geothermal, and sustainable energy systems. Includes energy production and conversion. Field trips. Prerequisite: junior standing. Course is cross-listed with IET 442.
GEOG 443. Energy Policy (5). Legal, institutional, and economic frameworks for regional, national, and international energy decisions. Prerequisite: PHYS 111 or permission.
GEOG 445. Natural Resources Policy (4). Development and significance of policies affecting resource management in the United States. Prerequisite: permission of instructor.
GEOG 448. Resource and Environmental Analysis (5). Examination of the techniques and methodologies used for the evaluation and sustainable management of environmental resources from a variety of perspectives.
GEOG 450. Geography of Arid Lands (4). Unique physical environments of arid lands and human interaction with these environments over space and time. Focus on natural resources and land use conflicts.
GEOG 451. Mountain Environments (4).
Physical, human, and resource geography of mountain settings. Emphasis on the western hemisphere. Prerequisites: GEOG 107 and GEOG 108, or permission of instructor.
GEOG 452. Coastal Environments (4). Physical, human, and resource geography of coastal environments. Emphasis on physical processes, resource issues, and environmental management of coastal environments.
GEOG 453. Wetlands Analysis (4). Physical, human, and resource geography of wetland environments. Emphasis on physical processes, resource issues, and environmental evaluation and management of wetland environments.
GEOG 460. Geography of International
Trade (5). Geographic basis of international trade with special emphasis on the Pacific Northwest. Prerequisite: GEOG 304 or permission of the instructor. Field trips required.
GEOG 461. Soils (5). Focus on properties, factors, processes, and classifications of Earth's soils, past and present. Prerequisite: GEOG 107 or instructor permission. Four hours of lecture and four hours of field/ laboratory per week. Same as GEOG 361, may not receive credit for both.
GEOG 465. Wine: A Geographical
Appreciation (3). World overview of grape
and wine industry emphasizing geographic themes. Includes all-day field trip to Yakima Valley viticultural area.
GEOG 470. Geography of Latin America
(4). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Latin America.
GEOG 472. Geography of Russia and the Newly Independent States (4). Examination of the physical and cultural geography, human environment interaction, landscapes, and regional diversity of Russia and the newly independent states that once comprised the USSR.
GEOG 473. Watershed Analysis and Planning (4). Examination of water resource analysis, development, management, and planning in the United States. Focus on contemporary problems, trends, and case studies. Prerequisite: GEOG 373 or permission of instructor.
GEOG 474. Geography of China (4). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of China.
GEOG 475. Geography of Asia (5). Examination of the physical and cultural geography, human-environment interactions, landscapes, and regional diversity of Asia.
GEOG 479. Geography of the West (1-12). In-depth field examination of the complex physical, human, and resource issues of one or more of the varied subregions of western North America. Prerequisites permission of instructor. May be repeated for credit by permission of department chair.
GEOG 481. Urban Geography (5). The spatial and size distribution of cities as explained by their historical development and major functions. Analysis of the internal structure of cities and the results of urban growth. Prerequisite: GEOG 304 or permission of instructor.
GEOG 482. Hydrology (5). Provides a comprehensive introduction to both the global and local hydrologic cycle. Covers constituent processes, their measurements and quantitative relationships, plus basic water quality parameters. GEOG 482 and GEOG 382 are equivalent courses. Students may not receive credit for both.
GEOG 485. Topics In GIS and Remote Sensing (4). Special topic classes in GIS and remote sensing. Applied experience using GIS or image processing software. Prerequisites: GEOG 303, GEOG 430, or permission of instructor.
GEOG 489. Geography Capstone (2).
Assessment of past coursework and exploration of future opportunities. Prerequisite: geography major with senior standing.
GEOG 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision,
and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
GEOG 491. Workshop (1-6).
GEOG 492. Geography Teaching Experience (1-3). Experience in classroom, laboratory, and/or field teaching. Prerequisites: 15 credits in geography and permission of instructor. May be repeated for credit with permission of department chair.
GEOG 493. Geography Field Experience (1-12). Individual or group off-campus experience in the field study of geographical phenomena. Prerequisite: permission of instructor and department chair. May be taken more than once by permission of department chair
GEOG 494. Applied GIS Project (2-6). GIS projects in anthropology, biology, geography, geology, and resource management. Prerequisite: ANTH/GEOL 215 and permission of instructor. May be repeated by permission of department chair. GEOG 494, ANTH 494 and GEOL 494 are equivalent courses.
GEOG 496. Individual Study (1-6).
Prerequisite: permission of instructor.
GEOG 498. Special Topics (1-6).
GEOG 499. Seminar (1-5).

## GEOLOGICAL SCIENCES DEPARTMENT

Ellensburg
Lind Hall, room 108B
509-963-2702
Fax: 509-963-2821
www.geology.cwu.edu
See Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Wendy A. Bohrson, PhD

## Professors

Wendy A. Bohrson, PhD, volcanology, isotope geochemistry, igneous petrology
Lisa L. Ely, PhD, geomorphology, paleohdrology, and quaternary geology
Carey Gazis, PhD, environmental geochemistry, stable isotope geochemistry, and hydrogeology
Jeffrey Lee, PhD, active and regional tectonics, structural geology
M. Meghan Miller, PhD, crustal deformation, GPS geodesy, active tectonics, and remote sensing
Charles M. Rubin, PhD, paleoseismology, earthquake hazards, and active tectonics

## Associate Professors

Timothy I. Melbourne, PhD, seismology, continental dynamics

## Assistant Professors

Audrey Huerta, PhD, geodynamics, climate, and mountain building
Susan Kaspari, PhD, climate and environmental variability and glaciochemistry
Chris Mattinson, PhD, mineralogy and petrology

## Faculty Research Associates

Paul Winberry, PhD, glacier dynamics, seismology

## Lecturers

Marie Ferland, PhD, marine statigraphy, climate change
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
Andrew Minder, PANGA network engineer and geologist
Ivan Rabak, real-time GPS data analyst
Jocelyn Robinette, secretary
V. Marcello Santillan, scientific programmer and GPS data analyst
Craig Scrivner, systems analyst
Linda Shepard, fiscal specialist
Brad Woods, scientific programmer and GPS data analyst
Nick Zentner, instructional technician supervisor

## Department Information

Geosciences encompass the scientific study of the origin and evolution of the earth. Energy, mineral and water resources, geologic hazards, pollution of natural waters, and earthquake prediction are just a few of the pressing societal concerns that are addressed by geoscientists. The geological sciences program has two major parts: (1) solid-earth geosciences, such as rocks, minerals, deformation, and tectonic evolution of the earth's crust; and (2) Earth processes over the last 10,000 years, such as active faulting, environmental geochemistry, hydrogeology and water resources, geologic hazards, seismology, surface processes and volcanology. Field, laboratory, and computer skills are essential to the study of the geological sciences. Research in the geosciences is active and varied, with faculty and students interacting closely. BS and BA degrees are offered in geology, and a BS degree in environmental geological sciences. A BA in Earth sciences is also offered, and is intended for future secondary school teachers. Minors in geology and Earth sciences are also available to supplement careers in other fields.

Students who declare a major in geology must register with the department and work out a specific program of study with the chairperson or an assigned advisor. Course programs can be tailored to the student's needs and interests with the aid of an academic advisor. Other course requirements may be modified in cases where past performance indicates superior ability. Students must be evaluated for math placement upon declaration of the major with the goal of establishing proficiency at the MATH 154 level early in the major program.

## Bachelor of Science Major

The BS curriculum in geosciences prepares students for careers in solid-earth geosciences and environmental geology. This program assures adequate preparation in the basic physical sciences and breadth in the geosciences, so that students are well prepared for graduate school and have flexibility in career decisions. The BS requires courses in the geological sciences and additional courses in mathematics, chemistry, and physics. The BS degree is also appropriate for students who wish to continue in other quantitative scientific fields or directions (e.g., medical school).

## Bachelor of Arts and Bachelor of Science

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

The BA degree is designed for students planning professional careers in the geosciences and for those preparing to incorporate geosciences into broader careers such as teaching, resource management, environmental planning, business, or law. The BA degree may be an appropriate prerequisite for some graduate programs, but a $B S$ is generally recommended for those in the geological sciences. Election of this major will allow students to choose supporting courses from disciplines such as computer science, mathematics, and physics or other physical or biological sciences, or from disciplines as diverse as anthropology, environmental studies, or geography.


## Bachelor of Science <br> Geology Major

Required Core Courses
GEOL 101 - Physical Geology . . . . . . . . . . . . . 4 OR
GEOL 102 - Geology of National Parks (4)
GEOL 101LAB - Physical Geology Laboratory . 1
GEOL 200 - Earth Evolution and Global Change . . 5
GEOL 210 - Introduction to Geologic Field Methods . 4
GEOL 320 - Rocks and Minerals . . . . . . . . . . 5
GEOL 346 - Mineralogy . . . . . . . . . . . . . . . . . . . 5
GEOL 360 - Structural Geology . . . . . . . . . . . . 5
GEOL 370 - Stratigraphy . . . . . . . . . . . . . . . . . 5
GEOL 452 - Geophysics (4) OR
GEOL 480 - Geochemistry (4) . . . . . . . . . . . 4
GEOL 487 - End of Major Review Seminar . 1
GEOL 489 - Geologic Field Methods . . . . 6-12
Electives Selected from the following. .17-20
(Take at least one with asterisk)
GEOL 377 - Regional Natural History (2)
AND
GEOL 377LAB - Regional Natural History (3)
GEOL 380* - Environmental Geology and
Natural Hazards (4)
GEOL 381* - Environmental
Mineralogy (4)
GEOL 386* - Geomorphology (5)
GEOL 415* - Earthquake Geology and Neotectonics (5)
GEOL 425* - Environmental Geochemistry (5)
GEOL 445* - Hydrogeology (5)
GEOL 452 - Geophysics (4)
GEOL 453 - Seismology (5)
GEOL 454 - Geostatistics (5)
GEOL 455* - Applied Geophysics (4)
GEOL 463 - Tectonic Investigations (2) AND
GEOL 463LAB - Tectonic Field
Investigation (3)
GEOL 474 - Quaternary Geology (4)
GEOL 475 - Petrography and
Petrogenesis (5)
GEOL 478 - Volcanology (5)
GEOL 480 - Geochemistry (4)
GEOL 481 - Mineralogy and Planetary Materials (4)
GEOL 483 - Isotope Geochemistry (5)
GEOL 488 - Senior Colloquium in Geology (4)

Geology Core Total Credits: 62-71

## Allied Science Requirements for Bachelor of Science Degree

Required
Chemistry . . . . . . . . . . . . . . . . . . . . . . . . . 10-14
CHEM 181, 181LAB, 182, 182LAB.
Physics $.10-15$
PHYS 181, 181LAB, 182, 182LAB
OR The following may be used to substitute for the above physics courses PHYS 111, 111LAB, 112, 112LAB, 113, 113LAB

Mathematics 10
MATH 172 - Calculus I (5)
MATH 173 - Calculus II (5)
Select one of the following:
...4-5
CHEM 183 - General Chemistry III (4)
MATH 265 - Linear Algebra I (4)
MATH 272 - Multivariable Calculus I (5)
MATH 311 - Statistical Concepts and Methods (5)

Allied Science Total Credits: 34-35
Bachelor of Science Total Credits: 96-106

## Bachelor of Arts <br> Geology Major

Required Core Courses
GEOL 101 - Physical Geology . . . . . . . . . . . . . 4 OR
GEOL 102 - Geology of National Parks (4)
GEOL 101LAB - Physical Geology
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
GEOL 200 - Earth Evolution and Global
Change
. 5
GEOL 210 - Introduction to Geologic Field Methods
GEOL 320 - Rocks and Minerals . . . . . . . . . . 5
GEOL 346 - Mineralogy . . . . . . . . . . . . . . . . . . . . 5
GEOL 360 - Structural Geology . . . . . . . . . . . 5
GEOL 370 - Stratigraphy . . . . . . . . . . . . . . . . . 5
GEOL 452 - Geophysics (4) OR
GEOL 480 - Geochemistry (4)
.4
GEOL 487 - End of Major Review Seminar . 1
GEOL 489 - Geologic Field Methods . . . . .6-12
Electives Selected from the following. . 21-24
(Take at least one with asterisk)
GEOL 377 - Regional Natural History (2)
AND
GEOL 377LAB - Regional Natural
History (3)
GEOL 380* - Environmental Geology and Natural Hazards (4)
GEOL 381* - Environmental
Mineralogy (4)
GEOL 386* - Geomorphology (5)
GEOL 415* - Earthquake Geology and Neotectonics (5)
GEOL 425* - Environmental Geochemistry (5)
GEOL 445* - Hydrogeology (5)
GEOL 452 - Geophysics (4)
GEOL 453 - Seismology (5)
GEOL 454 - Geostatistics (5)
GEOL 455* - Applied Geophysics (4)
GEOL 463 - Tectonic Investigations (2)
AND
GEOL 463LAB - Tectonic Field Investigation (3)
GEOL 474 - Quaternary Geology (4)
GEOL 475 - Petrography and
Petrogenesis (5)
GEOL 478 - Volcanology (5)
GEOL 480 - Geochemistry (4)
GEOL 481 - Mineralogy and Planetary Materials (4)
GEOL 483 - Isotope Geochemistry (5)
GEOL 488 - Senior Colloquium in
Geology (4)

## Allied Science Requirements for Bachelor of Arts degree

MATH 154 - Pre-Calculus Mathematics II . . 5
Select 10 credits from the following. . . . . . 10
CHEM 111 \& 111LAB, 112 \& 112LAB, 113 \& 113LAB, $181 \&$ 181LAB, 182 \& 182LAB, 183 \& 183LAB
PHYS 111 \& 111LAB, 112 \& 112LAB, $113 \& 1$ 13LAB, $181 \& 181 \mathrm{LAB}, 182 \&$ 182LAB, 183 \& 183LAB
MATH 172, 173, 311
Allied Science Total for Bachelor of Arts Credits: 15

Bachelor of Arts Total Credits: 77-86

## Bachelor of Science <br> Environmental Geological Sciences Major

Required Core Courses
GEOL 101 - Physical Geology (4) .......... . 4-5 OR
GEOL 102 - Geology of National Parks (4) OR
GEOL 108 - Introduction to
Environmental Geology (5)
GEOL 101LAB - Physical Geology
Laboratory ............................... . 1
GEOL 200 - Earth Evolution and Global Change
. .5
GEOL 210 - Introduction to Geologic Field
Methods ................................
GEOL 320 - Rocks and Minerals ........... 5
GEOL 370 - Stratigraphy .................... 5
GEOL 380 - Environmental Geology and
Natural Hazards
.4
GEOL 386-Geomorphology ............... . 5
GEOL 425 - Environmental Geochemistry . . 5 OR
GEOL 483 - Isotope Geochemistry (5)
GEOL 445 - Hydrogeology ................. . 5
GEOL 487 - End of Major Review Seminar . 1
Electives selected from the following . .17-20
(Must take at least one with asterisk)
BIOL 360 - General Ecology (5)
BIOL 362 - Biomes of the Pacific Northwest (4)
CHEM 345 - Environmental Chemistry (5)
ECON 462* - Economics of Energy,
Resources and Environment (5)
ENST 303* - Environmental Management (5)

GEOG 361 - Soils (5)
GEOG 382 - Hydrology (5)
GEOG 305* - Introduction to Land Use Planning (5)
GEOG 373* - Water Resources (4)
GEOG $445^{*}$ - Natural Resources Policy (4)
GEOL 302 - Oceans and Atmosphere (4)
GEOL 377 - Regional Natural History (2) AND
GEOL 377LAB - Regional Natural History (3)

GEOL 381 - Environmental Mineralogy (4)

GEOL 410 - Snow Sciences:
The Physics of Avalanches (4)
GEOL 415 - Earthquake Geology and Neotectonics (5)
GEOL 425 - Environmental Geochemistry (5)

GEOL 430 - Remote Sensing (5)
GEOL 455 - Applied Geophysics (4)
GEOL 474 - Quaternary Geology (4)
GEOL 478 - Volcanology (5)
GEOL 483 - Isotope Geochemistry (5)
HIST 454 - American Environmental History (5)
PHIL 306 - Environmental Ethics (5)
Geology Core Total Credits: 62-65

## Allied Science Requirements for Bachelor of Science Environmental Geological Sciences Degree

A one-year series is required in chemistry and mathematics, two quarters are required in physics, and one quarter is required in biology.
CHEM 181 \& 181LAB, 182 \& 182LAB,
183 \& 183LAB. . . . . . . . . . . . . . . . . . . . . . . . 15
PHYS 181 \& 181LAB, 182 \& 182LAB, ...10-15
OR the following may be used to substitute
for the above physics courses:
PHYS 111 \& 111LAB, 112 \& 112LAB,
113 \& 113LAB
MATH 172, 173, 311 . . . . . . . . . . . . . . . . . . . . 15
BIOL 200 - Plants in the Modern World . . . . 5
Allied Science Total Credits: 45-50
Bachelor of Science Environmental
Geological Sciences Total Credits: 107-115

## Geology Minor

Required Courses
GEOL 101 - Physical Geology . . . . . . . . . . . . . 4 OR
GEOL 102 - Geology of National Parks (4)
GEOL 101LAB - Physical Geology
$\qquad$
GEOL 200 - Earth Evolution and Global
Change . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
GEOL 320 - Rocks and Minerals . . . . . . . . . . 5
Department-approved Geology electives

Total Credits: 33-35

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.)

## Bachelor of Arts Earth Science Teaching Major

This major satisfies the criteria for an endorsement in earth and space science and qualifies students to teach earth and space science at the high school, middle, or junior high school levels. Students should seriously consider working toward endorsement in a second area, such as biology, chemistry, general science, middle level science, middle level mathematics, physics, or mathematics. Students taking this major are required to complete the Teacher Preparation Program requirements offered through the Department of Educational Foundations and Curriculum. Students completing this program are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition to the above requirements, students must pass the WEST-E exam for earth and space science to receive an earth and space science endorsement.

## Required Courses

CHEM 111 - Introduction to Chemistry . . . . 4 AND
CHEM 111LAB - Introductory Chemistry
Laboratory
OR
CHEM 181 - General Chemistry I (4)
AND
CHEM 181LAB - General Chemistry
Laboratory I (1)
GEOL 101 - Physical Geology . . . . . . . . . . . . 4
OR
GEOL 102 - Geology of National Parks (4)
GEOL 101LAB - Physical Geology
Laboratory . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
GEOL 200 - Earth Evolution and Global
Change . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
GEOL 210 - Introduction to Geologic
Field Methods . . . . . . . . . . . . . . . . . . . . . . . .
GEOL 302 - Oceans and Atmosphere . . . . . . 4
GEOL 320 - Rocks and Minerals . . . . . . . . . . 5
GEOL 350 - Teaching Northwest Geology . . 4
GEOL 370 - Stratigraphy . . . . . . . . . . . . . . . . 5
GEOL 380 - Environmental Geology and
Natural Hazards . . . . . . . . . . . . . . . . . . . . .
GEOL 386 - Geomorphology . . . . . . . . . . . . . 5
GEOL 492B - Laboratory Experience Teaching Earth Science
MATH 153 - Pre-Calculus Mathematics I . . . 5
PHYS 101 - Introductory Astronomy I. . . . . . 5
SCED 487 - Teaching Secondary Science
Seminar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
SCED 324 - Science Education in Secondary
Schools . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
SCED 495 - Science Education Research . . .1-3 OR
GEOL 495 - Senior Research (1-3)
Total Credits: 65-67

## Earth Science Teaching Minor

This minor is restricted to students
working on a teaching major in biology, chemistry, genera; science (of earth science
is not already the chosen designated science area), or physics. Students completing this minor are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition, students must pass the WEST-E exam for Earth and space science to receive an Earth and space science endorsement.


Total Credits: 29

## Geology Courses

GEOL 101. Physical Geology (4). An introduction emphasizing the origin and nature of the common rocks and the continually changing features of the earth's crust. Co-requisite, GEOL 101LAB. Four lectures per week. Students may not receive credit for both GEOL 101 and GEOL 102.
GEOL 101LAB. Physical Geology Laboratory
(1). Application of map study to geological processes and land forms, identification of rocks and minerals. Co-requisite, GEOL 101 or GEOL 102. Two hours laboratory per week. May require field trips.
GEOL 102. Geology of National Parks (4). Fundamentals of geology applied to selected national parks in North America. Co-requisite, GEOL 101LAB. Four lectures per week. Students may not receive credit for both GEOL 101 and GEOL 102.
GEOL 107. Volcanoes, Earthquakes, and Civilization (5). The role of natural geologic processes such as volcanoes, earthquakes, and climate change in shaping the earth, the environment, and human civilization. Four hour lecture per week plus required field trips.
GEOL 108. Introduction to Environmental Geology (5). Interaction between human activity and geological processes. Scientific discussion of global environmental issues such as ozone depletion, climate change, geologic hazards, natural resources, and water use.
GEOL 200. Earth Evolution and Global Change (5). Evolution of the earth, plate tectonics, life, and climate over the last 4.5 billion years. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB. Three lectures, four hours laboratory per week.
GEOL 210. Introduction to Geologic Field Methods (4). Introduction to the basic
methods of geologic field investigation. Emphasis on constructing geologic maps. The class will consist of two weeks in the field, primarily along the eastern front of the Sierra Nevada, California, or other regions in the western United States. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB. The class will be offered during the summer break or as arranged by the instructor. Students will register for the class during the immediately subsequent academic year quarter. Extra fees required.
GEOL 302. Oceans and Atmosphere (4). Introduction to Earth's climate and the hydrologic cycle through study of the ocean-atmosphere system. Chemical and physical changes will be studied over time scales ranging from millions of years to days. Will include field trip.
GEOL 320. Rocks and Minerals (5). Identification, classification, and evolution of common igneous and metamorphic rocks. Includes recognition and interpretation of rocks in typical field exposures. Prerequisites: GEOL 101 or GEOL 102, and GEOL 101LAB and one chemistry course (may be taken concurrently), or permission of instructor. Three hours lecture and three hours laboratory per week plus required field trips.
GEOL 346. Mineralogy (5). Physical, chemical, and crystallographic properties, and occurrence of minerals. Examination and description of hand specimens and crystal models. Theory and practice in optical mineralogy and X-ray diffraction, Prerequisites: GEOL 320, or permission of instructor. Four lectures and three hours laboratory per week.
GEOL 350. Teaching Northwest Geology (4). Designed for students planning to teach in Washington public schools. Fundamentals of geology applied to the Pacific Northwest. May include student presentations and teaching practica. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB. Four hours per week.
GEOL 360. Structural Geology (5). Introduction to the basic principles of rock deformation with an emphasis on the geometry, styles, and mechanics of faulting and folding and the stereographic projection and analysis of geologic structures. Prerequisite: GEOL 200. Three lectures and four hours laboratory per week. Field trips required.
GEOL 370. Stratigraphy (5). Origin of sedimentary rocks, physical processes and stratigraphic principles. Identification of sedimentary rocks in hand sample. Prerequisite: GEOL 200. Four hours lecture and four hours laboratory per week. Three day field trip required.
GEOL 377. Regional Natural History (2). Classroom study of the natural history of a selected region as preparation for one- to two-week field trip. Emphasis will be on developing background skills to undertake a field exploration over the quarter (winter,
spring, summer) break. Subtitles will identify the selected geographical region (e.g. Baja California Natural History). Prerequisite: permission of instructor. GEOL 377 and BIOL 377 are equivalent courses. May be repeated for credit under a different subtitle (region).
GEOL 377LAB. Regional Natural History
(3). One- to two-week field trip to explore biological and physical patterns and processes in selected regions of North America. Emphasis will be on recording field observations, keeping a field journal, field study techniques, and performing investigations chosen and developed by student participants. Subtitles will identify the region studied. Co-requisite, GEOL 377 and Prerequisite: permission of instructor. Special fees required. Administered through Continuing Education. GEOL 377LAB and BIOL 377LAB are equivalent courses. May be repeated for credit under a different subtitle.
GEOL 380. Environmental Geology and
Natural Hazards (4). Examine interactions between humans and their environment from a geologic perspective, evaluating problems such as geologic hazards and the use of Earth's resources. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB or permission of instructor. Four lectures per week and required field trips.
GEOL 386. Geomorphology (5). Descriptive and interpretive examination of the earth's landforms. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB or GEOG 107 or permission. Four lectures and three hours laboratory or field trips. GEOL 386 and GEOG 386 are equivalent courses. Students may not receive credit for both
GEOL 388. Field Trips (1-3). Intensive study of geological phenomena on field trips up to two weeks in length. Prerequisite: permission of instructor. Three days field work for each credit. Course may be repeated for areas of significantly different geologic content. Grade will be S or U . Extra fees required.
GEOL 392. Lab Experience Teaching Physical Geology (1). Prerequisite: GEOL 101 or GEOL 102 and GEOL 101LAB or permission of the instructor. May be taken twice for credit. Grade will be S or U.
GEOL 395. Junior Research (1-6). By permission only. May be repeated for up to 12 credits.
GEOL 396. Individual Study (1-6).
Prerequisite: permission of instructor. GEOL 398. Special Topics (1-6).
GEOL 404. Intermediate GIS (5). Applied concepts, principles, and operation of fundamental GIS applications, including raster-vector data models, topology, digitizing, and various analytical techniques such as overlay, buffers, and Boolean queries. Lecture and practical applications. Prerequisite: GEOG 303/403 or permission. GEOL 404, ANTH 404 and GEOG 404 are equivalent courses. Students may not receive credit for more than one.

GEOL 410. Snow Sciences: The Physics of Avalanches (4). Physical processes in avalanches and snow dynamics; snowpack accumulation, redistribution, metamorphism, energy balance, ablation, and runoff. Field investigations are required under rigorous outdoor conditions. Prerequisite: permission of instructor. Three hours lecture and six hours field laboratory per week.
GEOL 415. Earthquake Geology and
Neotectonics (5). Geomorphology, stratigraphy, and structural geology applied to the study of active faults and folds in a variety of tectonic settings. Relation of seismicity and geodetic measurements to geologic structure and active tectonic processes, including case studies of selected earthquakes. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB, and permission. Three hours lecture and four hours laboratory per week. GEOL 415 and GEOL 515 are equivalent courses. Students may not receive credit for both.
GEOL 417. Advanced GIS (4). Advanced GIS principles, techniques, analysis, and application. Lecture and practical handson experience. Applied experience using GIS software. Prerequisite: GEOG 404, ANTH 404, or GEOL 404, or permission of instructor. GEOL 417, ANTH 417, and GEOG 417 are equivalent courses. Students may not receive credit for more than one
GEOL 425. Environmental Geochemistry (5) Global geochemical cycles, influences of rocks and soils on water chemistry, behavior of isotopes and trace elements. Includes class project studying local environmental geochemistry topic. Prerequisite: CHEM 181, 181LAB, 182, and 182LAB, or permission of instructor. Three lectures plus one three-hour lab per week. GEOL 425 and GEOL 525 are equivalent courses. Students may not receive credit for both.
GEOL 430. Remote Sensing (5). Principles of acquisition, analysis, and use of remotely sensed data (LANDSAT, SPOT, Ikonos, etc.). Applied experience using image-processing software. Prerequisites: GEOG 410 or GEOL 210, or permission of instructor. Three hours lecture and three hours laboratory per week. GEOL 430, GEOG 430, and GEOL 530 are equivalent courses. Students may not receive credit for more than one course.
GEOL 432. Field Geodetic Techniques (3). Training in field geodetic techniques, including scientific application of two or more precision surveying instruments: geodetic GPS, differential GPS, and electronic distance meter. Three hours a week and field project, or one-week field course. Prerequisites: GEOL 101/101LAB or GEOL 102 / 101LAB, GEOL 200, and GEOL 210. GEOL 432 and GEOL 532 are equivalent courses. Students may not receive credit for both.
GEOL 434. Petroleum Geology (5). Petroleum Geology delivers a comprehensive introduction to the application of geology in the oil and gas industry, including
the origin and occurrence of petroleum, application of geology in exploration and production, and the evolution of the industry in the context of global demand. Prerequisites: GEOL 101/LAB, and GEOL 102, or GEOL 210, and GEOL 370, to instructor's approval. GEOL 434 and GEOL 534 are equivalent courses. Students may not receive credit for both.
GEOL 441. Climate Variability and Climate Change (5). Examine past, present, and future changes in climate, and the factors that contribute to climate change over various timescales. Prerequisites: GEOL 200 or permission of the instructor. GEOL 441 and GEOL 541 are equivalent courses. Students may not receive credit for both.
GEOL 445. Hydrogeology (5). Study of the occurrence and movement of ground water using geology, hydrology, and geochemistry, with an emphasis on practical problems in water management. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB and MATH 154, or permission of instructor. Three hours lecture and three hours laboratory per week. GEOL 445 and GEOL 545 are equivalent courses. Students may not receive credit for both.
GEOL 452. Geophysics (4). Basic elasticity theory, gravity and geoid analysis. Terrestrial heat flow and seismology. Prerequisites: MATH 154 or permission of instructor. Three hours lecture per week plus four hours of scientific computing lab. No prior Unix experience required.
GEOL 453. Seismology (5). Elasticity theory, the wave equation, ray theory, diffraction, waveform modeling, travel time inversion. Data analysis. Prerequisites: MATH 173 or permission of instructor. Three hours lecture per week plus four hours of scientific computing lab. Offered alternate years. GEOL 453 and GEOL 553 are equivalent courses. Students may not receive credit for both.
GEOL 454. Geostatistics (5). Introduction to statistical analysis and numerical simulation of problems relevant to Earth science. Three hours of lecture and three hours of lab. No prior Unix experience necessary. GEOL 454 and GEOL 554 are equivalent courses. Students may not receive credit for both. GEOL 456. Geodynamics (5). Study of plate tectonics and mountain building processes that shape Earth. Lab includes introduction to Batlab software for analysis and visualization. Required field trip. Prerequisite: GEOL 101. Co-requisite MATH 172, or permission of instructor. GEOL 456 and GEOL 556 are equivalent courses. Students may not receive credit for both. GEOL 463. Tectonic Investigations (2). Classroom study and analysis of tectonics of a selected region. Emphasis will be on developing background skills and knowledge to undertake a tectonic field investigation in GEOL 463LAB. GEOL 350 and permission of the instructor. GEOL 463 and GEOL 563 are equivalent courses. Students may not receive credit for both.

GEOL 463LAB. Tectonic Field Investigation
(3). Tectonic investigation and analysis of select field sites employing a variety of field and laboratory measurements such as mapping, tectonic geomorphology, GPS and Total Station surveying. Course consists of either weekly local field trips during the quarter, or single one-week trip over spring break to another region. Co-requisite, GEOL 463. GEOL 463LAB and GEOL 563LAB are equivalent courses. Students may not receive credit for both.
GEOL 474. Quaternary Geology (4). Study of geological processes affecting Earth's most recent history. Course emphasizes Quarternary environmental change, glacial epochs, paleoclimatic methods, and dating techniques. Prerequisite: GEOL 386 or permission. GEOL 474 and GEOL 574 are equivalent courses. Students may not receive credit for both.
GEOL 475. Petrography and Petrogenesis (5). Petrogenetic, hand specimen, and thin section study of igneous, metamorphic, or sedimentary rocks. Prerequisites: GEOL 346. Three hours lecture and four hours laboratory or field work per week plus required field trips. GEOL 475 and GEOL 575 are equivalent courses. Students may not receive credit for both. Offered in alternate years.
GEOL 478. Volcanology (5). Study of volcanoes and associated deposits, styles of eruption, physical and chemical controls on eruption mechanisms, and volcanic hazards and hazard mitigation. Prerequisites: GEOL 346 or consent of instructor. Three hours lecture and four hours laboratory per week plus required field trips. GEOL 478 and GEOL 578 are equivalent courses. Students may not receive credit for both. Offered in alternate years.
GEOL 480. Geochemistry (4). An introduction to the branches of geochemistry, including the origin of elements, age dating, isotope geochemistry, and petrochemistry. Prerequisites: GEOL 320, CHEM 182, CHEM 182LAB, and MATH 154, or permission of instructor. Four hours lecture per week plus required field trips.
GEOL 483. Isotope Geochemistry (5).
Covers principles of isotope geochemistry and applications to studies of geological processes such as hydrologic cycling, volcanic petrogenesis, and climate change. Prerequisites: CHEM 182, CHEM 182LAB, and MATH 154 or permission of instructor. Three hours lecture per week plus required laboratory work and field trips. GEOL 483 and GEOL 583 are equivalent courses. Students may not receive credit for both. Offered in alternate years.
GEOL 484. 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.

Prerequisites: MATH 172, and GEOL 346, or permission of the instructor. GEOL 484 and GEOL 584 are equivalent courses. Students may not receive credit for both.
GEOL 487. End-of-Major Review Seminar (1). Students must be familiar with the language of geology and possess certain basic geologic skills. Coordinates student participation in program assessment activities and provides a structured avenue for student input into program goals. Prerequisite: students must be seniors intending to graduate during the current year. Grade will be $S$ or U.
GEOL 488. Senior Colloquium in Geology (4). Lecture, reading, and presentation of various topics in geology. Prerequisite: senior standing or permission of instructor. Three hours lecture plus three hours of discussion per week.
GEOL 489. Geologic Field Methods (6-12). Emphasis is placed on observation and recording of lithologic and structural features, measurement of stratigraphic and structural sections, applications of various survey methods, and plotting geologic data on topographic and aerial photographs in the field. The class will be offered during summer or winter break, or as arranged by the instructor. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB, GEOL 200, GEOL 360. Credits will be carried in concurrent or immediately subsequent academic year quarter. Extra fees required.
GEOL 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
GEOL 491. Workshop (1-6).
GEOL 492A. Experience Teaching Upperlevel Geology (2). Assisting with instruction in upper-level geology major lab or field courses. Prerequisite: permission of instructor. May be repeated once for the same course, and up to a total of four times. Grade will be S or U .
GEOL 492B. Laboratory Experience Teaching Earth Science (2). Course designed for future Earth science teachers in secondary schools. Assist teaching one laboratory section of GEOL 101LAB and discuss laboratory-teaching methods. Prerequisite: GEOL 101 or GEOL 102 and GEOL 101LAB or permission of the instructor. Grade will be S or U .
GEOL 494. Applied GIS Project (2-6). GIS projects in anthropology, biology, geography, geology, and resource management. May be repeated by permission of department chair. Prerequisite: ANTH/GEOG 215 and permission of instructor. GEOL 494, ANTH 494, and GEOG 494 are equivalent courses.
GEOL 495. Senior Research (1-6). By
permission only. May be repeated up to 12 credits.

GEOL 496. Individual Study (1-6).
Prerequisite: permission of instructor.
GEOL 498. Special Topics (1-6).
GEOL 499. Seminar (1-5).

## LAW AND JUSTICE DEPARTMENT

Ellensburg
Farrell Hall, room 309
CWU-Des Moines (D)
CWU-Lynnwood (L)
CWU-Pierce County (PC)
CWU-Yakima (Y)

509-963-3208
Fax: 509-963-3205
www.cwu.edu / ~lajhome/
See Web site for how Law and Justice could be used for educational and career purposes.

Faculty and Staff
Chair
Charles Reasons, PhD, JD
University Center Department Directors
Rodrigo Murataya, PhD (Y)
Krystal Noga-Styron, JD (L)
Mary Ellen Reimund, LLM (D)
Key Sun, PhD (PC)

## Professors

J. Michael Olivero, PhD, corrections, criminology
Charles Reasons, PhD, JD, criminology, criminal justice, law, comparative justice

## Associate Professors

Sarah Britto, PhD, criminology, media and fear of crime, restorative justice
Rodrigo Murataya, PhD, criminal investigation, police-community relations, police personnel administration
Mary Ellen Reimund, LLM, criminal law, alternative dispute resolution, restorative justice
James B. Roberts, JD, correctional law, correctional counseling,
Key Sun, PhD, correctional counseling, comparative criminal justice, psychological criminology

## Assistant Professors

Teresa Francis, LLM, criminal law, correctional law
Krystal Noga-Styron, JD, criminal law, crime and the media

## Lecturers

Cathy Busha, JD, family law, legal research, legal writing, paralegal
Robert Moore, MA, corrections, correctional counseling

## Staff

Sharon Talley, department secretary
Crystal Boothman, office assistant

## Department Standards

Admission to the major and to the minor

1. Grade requirement: overall grade point average of 2.25 or higher. The department chair may admit a limited number of students with grade point averages below 2.25 under extenuating circumstances.
2. Students applying to the major must submit a major application form.
3. The law and justice department reserves the right to modify these requirements in special cases or as the needs of the department change.

## Exit Requirements

A minimum grade of $C$ - must be earned in all courses used to fulfill the requirements of the major and of the minor.

## Bachelor of Arts

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

## Law and Justice Core

## Core Requirements

LAJ 300 - Administration of Criminal

Justice
LAJ 302 - Criminal Procedure ..... 4
LAJ 303 - Legal Research ..... 4
LAJ 313 - Criminal Law ..... 4
LAJ 400 - Research Methods in Criminal Justice (4) ..... 4-5

OR

SOC 363 - Methods of Social Research (5)
OR
PSY 300 - Research Methods in Psychology (5)
LAJ 401 - Ethics, Diversity, and Conflict in
$\qquad$
LAJ 420 - Community and Social Justice. . . . 4
LAJ 451 - Crime in America . . . . . . . . . . . . . . 4
Law and Justice Core Total Credits: 32-33

## Bachelor of Arts

Law and Justice Major
LAJ Core Requirements . . . . . . . . . . . . . .32-33
Select five (5) upper-division CWU LAJ courses (other than 490, 492, 495, or 496). 20
Select eight credits from the list of approved electives*

Total Credits: 60-61
*See department for a complete listing of approved electives.

## Law and Justice Minor

## Required Courses

Select three (3) LAJ courses from Core
Requirements . . . . . . . . . . . . . . . . . . . . . .12-13
LAJ 300 - Administration of Criminal Justice (4)

LAJ 302 - Criminal Procedure (4)
LAJ 303 - Legal Research (4)
LAJ 313 - Criminal Law (4)
LAJ 400 - Research Methods in Criminal Justice (4)
OR
SOC 363 - Methods of Social
Research (5)
OR
PSY 300 - Research Methods in Psychology (5)
LAJ 401 - Ethics, Diversity and Conflict in Criminal Justice (4)
LAJ 451 - Crime in America (4)
LAJ 420 - Community and Social Justice (4)

## LAJ Electives

Select three (3) upper-division CWU LAJ
courses (other than 490, 492, 495, or 496). 12
Total Credits: 24-25

## Law and Justice Courses

(Note: for all 400-level LAJ courses, student must have completed ENG 101 and 102, MATH 101 or 153 or 154 or 164 or 170 or 172, MATH 102 or MATH 130 or PHIL 201 or CS 105 (basic skills in these categories.)

## LAJ 300. Administration of Criminal

 Justice (4). The sources of police power and authority in a democratic society, the internal organization and administration of federal, state and local agencies, their interaction with each other, and with the communities they serve.LAJ 302. Criminal Procedure (4). A review of guidelines for police arrest, search, interrogation, and identification procedures based upon rules of criminal procedure derived from the U.S. Constitution. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 303. Legal Research (4). Techniques of legal research; the case system, statutes, court decisions, Shepardizing. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 311. Family Law (4). Marriage, divorce, state regulation, custody, and care and supervision of children.
LAJ 313. Introduction to Criminal Law (4). Scope and nature of law; classification of offenses; act and intent; capacity to commit crime and defenses. Elements of major criminal statutes.
LAJ 316. Introduction to Paralegal Studies (4). This course provides an introduction to paralegal studies. It provides analysis of the role of the paralegal and the tasks involved in being a paralegal including interviewing clients and witnesses, legal research, writing, legal writing, and attending trials. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.

LAJ 317. Introduction to Civil Practice (4). This course is designed to provide students with a comprehensive overview of civil litigation from investigation through discovery, trial, and appeal. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 324. Correctional Law (4). This course examines transitions in prisoner civil rights since the U.S. Supreme Court ruled that inmates hold all rights as other citizens with the exception of those necessarily taken by fact of incarceration. Constitutional issues will be analyzed, including standards for shelter and medical care, discipline, religion, and access to the courts.
LAJ 326. Correctional Counseling (4). This course provides an analysis of the role of correctional counselor in rehabilitative efforts with offenders. Course focuses include criminal offender treatment methods and correctional or rehabilitative policy. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 327. Community Corrections (4). Maintaining, supervising, and counseling offenders in the community-based setting. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 331. Investigation (4). Function and propriety of investigations; methods of gathering evidence. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 332. Police Community Relations (4). This course examines the relationship between the police and community and how to make this relationship a positive one. Analysis will be made of the history of police and friction with various groups in society. Attempts at positive police communication and community participation will also be examined. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 333. Police Personnel Administration (4). History and philosophy of federal, state, and local police personnel programs; overview of personnel functions. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 334. Issues in Policing (4). This course provides a comprehensive examination of the current critical issues and policy dilemmas within the American criminal justice system. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 342. Juvenile Justice Process (4). Includes historical, ideological development of juvenile justice process; analyses policies, mechanisms; examines integrated network of agencies; examines juvenile law, rights,
treatment; examines current research. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 350. Criminal Justice and the Media (4). An exploration of media messages concerning crime and criminal justice, how these portrayals compare with the operation of the criminal justice system, and how media images influence both individual attitudes and public policy.
LAJ 351. Preparing for a Law Enforcement Career (2). This course provides crucial information to help students understand, prepare, compete, and promote themselves during the competitive testing and hiring process for law enforcement positions. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 353. Great American Trials (4). Famous American trials in history will be explored including the role of attorneys, trial advocacy, and whether justice has been achieved.
LAJ 398. Special Topics (1-6).
LAJ 400. Research Methods in Criminal Justice (4). This course examines current research in criminal justice and research methods and statistics. Students will critique current methods. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 401. Ethics, Diversity, and Conflict in Criminal Justice (4). Introduce students to a multi-cultural approach to practical legal ethics within the criminal justice system. The course covers law enforcement, corrections, and Alternative Dispute Resolution.
LAJ 402. African Americans and the Constitution (4). The law is the way a society governs itself and protects the freedom of all citizens. African Americans and the Constitution will examine legal issues engendered with dispute and division. Prerequisite: LAJ 300 is recommended.
LAJ 403. Sexual Minorities, the Law, and Justice (4). This course examines sexuality, homosexuality, bisexuality, and transgender/transexual issues related to the legal system. It provides a political and sociological overview of history, morality, law, and law enforcement practices related to sexual orientation. LAJ 300 is recommended before taking this course.
LAJ 410. Legal Writing (4). The pre-law or paralegal student will learn fundamental legal writing tools in conjunction with basic rules on correspondence, retainer agreements, and other commonly used documents. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 420. Community and Social Justice (4). This course will examine the concepts of community justice and restorative justice in the larger context of social justice.

Students will explore how community and restorative justice work with the traditional justice system. Prerequisite: LAJ 300 is recommended.
LAJ 426. Advanced Correctional Counseling (4). This course will provide students with specialized training in theory and techniques required in the rapidly evolving practice of correctional counseling. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 440. Basic Mediation (4). Course provides an introduction to the philosophy, practice, and skills required for basic mediation, which are explored through readings, lectures, demonstrations, and skill-building role plays. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 450. Report Writing (4). Law enforcement and corrections students will learn basic writing in the context of specialized reports utilized in their fields. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 451. Crime in America (4). American crime problems in historical perspectives. Social and policy factors affecting crime. Crime impact and trends, offender and victim profiles. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 453. Domestic Violence Issues (4). This course provides an overview of domestic violence in our society and examines critical issues, including perspectives from the legislature, courts, police, prosecutors, and victims. Significant emphasis on these perspectives in Washington State. Prerequisite: LAJ 300 is recommended.
LAJ 455. Comparative Criminal Justice Systems (4). In this course, students will revisit the U.S. system of criminal justice and learn an appreciation for the criminal justice systems of other countries. By the end of the course students will be able to compare and contrast the different systems and their application, benefits, and weaknesses. Prerequisites: ENG 101, and ENG 102, and either MATH 101, or MATH 153 , or MATH 154, or MATH 164, or MATH 170, or MATH 172, and MATH 102, or MATH 130, or PHIL 201, or CS 105.
LAJ 459. Current Issues (4). Current legal,

correctional, and enforcement issues will be explored. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 460. Terrorism (4). Survey of domestic terrorism and United States interests in international terrorism, including concepts and theories of terrorism, history of terrorism, terrorist organizations, specific terrorist incidents, investigative techniques, and developing legal issues. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 470. Victimology (4). In this course, students will focus on victims' rights, legal issues pertaining to victims, psychological trauma of crime victims and how to appropriately respond in the field to crime victims. Prerequisite: LAJ 300 and junior or senior standing.
LAJ 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended. Prior approval required. May be repeated. Grade will be S or U.
LAJ 491. Workshop (1-6). Specialists will lead discussion of a variety of problems concerning the law and justice system. With the approval of the director of the program the course may be designated for $S$ or $U$ grades.
LAJ 492. Teaching Experience in Law and Justice (1-4). Prerequisite: completion of course in which teaching or assisting is to be done and approval of the instructor and department chair. LAJ 300 is recommended. May be repeated for up to a total of 8 credits. Grade will be S or U.
LAJ 495. Directed Research (1-5). Individual research project. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended. May be repeated up to a total of 10 credits.
LAJ 496. Individual Study (1-6). Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 498. Special Topics (1-6). These courses will offer in-depth information on various special topics relating to current issues. Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended.
LAJ 499. Seminar (1-5). Prerequisite: admission to the major or minor or permission of the chair or center director. LAJ 300 is recommended. With approval of the program director the course may be designated for regular letter grade or $S$ or U depending upon course and method of instruction.

## MATHEMATICS DEPARTMENT

Ellensburg
Bouillon Hall, room 108
509-963-2103
Fax: 509-963-3226
www.cwu.edu/ ~cwumath
See Web site for how Mathematics could be used for educational and career purposes.

## Faculty and Staff

Chair
Aaron Montgomery, PhD

## Professors

Stuart F. Boersma, PhD, differential geometry, general relativity
Timothy Englund, PhD, group theory, representation theory, statistics
Stephen P. Glasby, PhD, computational algebra, representation theory
James D. Harper, PhD, harmonic analysis
Scott M. Lewis, PhD, mathematics education, history of mathematics
Cen-Tsong Lin, PhD, probability and
mathematical statistics, actuarial science
Mark Oursland, EdD, mathematics education

## Associate Professors

Yvonne Chueh, PhD, actuarial science, statistics
W. Dan Curtis, PhD, applied mathematics

Jonathan Fassett, PhD, topology, dynamical systems
Michael Lundin, PhD, mathematics education Aaron Montgomery, PhD, topology, algebra

## Assistant Professors

James Bisgard, PhD, analysis
Christine Black, PhD , mathematics education
Richard Hilliard, MS, mathematics
Kathryn Temple, PhD, actuarial science
Jane Whitmire, PhD , mathematics education
Teri Willard, EdD, mathematics education

## Senior Lecturer

Richard Trudgeon, MA, administration and curriculum
Dale Width, MA, history

## Lecturers

Nancy Budner, MS, mathematics, MA, secondary education
Erin Lee, MAT, mathematics
Fred McDonald, MT, finance, accounting
Douglas Olson, MS, mathematics
Pamela Owen, MS, mathematics
Stephen Stein, PhD, educational administration
Bruce Woodcock, MA, education
Staff
Debbie Thomas, secretary

## Department Information

Mathematics is an expanding and evolving body of knowledge as well as a
way of perceiving, formulating, and solving problems in many disciplines. The subject is a constant interplay between the worlds of thought and application. The student of mathematics will find worthy challenges and the subsequent rewards in meeting them.

The general student will find preparatory courses in pre-calculus mathematics and traditional mathematics courses such as calculus, linear algebra, geometry, abstract algebra, and analysis. Also, more specialized courses in discrete mathematics, number theory, and the history of mathematics are offered. Special needs of computer science majors, elementary education majors, and general education requirements are also met by courses in the mathematics department.

For those desiring concentrated work in mathematics, the mathematics department offers four programs leading to bachelor's degrees. A bachelor of arts or bachelor of science in mathematics prepares the student as a mathematician for industry or graduate work. A bachelor of arts in secondary teaching prepares the student to teach at the junior, middle, or high school levels. A bachelor of science in mathematics with an actuarial science specialization prepares the student to work as an actuary or in applied statistics. A mathematics minor and a secondary teaching minor are also available.

One graduate degree is offered: the master of arts for teachers. This is described in the graduate section of the catalog.

All programs (major, minor, including electives) must be on file and approved by the department at least one academic year preceding graduation.

## Admission and Placement Notes

1. Enrollment in MATH 100C, MATH 101, MATH 102, MATH 130, and MATH 164 requires a satisfactory score on one of the following tests: SAT, ACT, COMPASS Test, or the Intermediate Assessment Test. The scores on the SAT or ACT tests must have been achieved within the last three years before math placement. The student with insufficient test scores is encouraged to enroll in developmental classes. For more information contact the Math Center in Hertz Hall, room 101 or 509-963-1834.
2. Students who wish to enroll in precalculus (MATH 153 or MATH 154) or calculus (MATH 170 or MATH 172), and who have not had the necessary prerequisite course at a college or university must take the mathematics placement test. Student will be placed in accordance with their results on this test as determined by the mathematics department. Students may be placed into pre-calculus I (MATH 153) if they received a B or better in a one-year high school calculus course. See the mathematics department for more details.
3. Admission to any mathematics course having prerequisites requires either a suitable math placement test score or a grade of 2.0 or better in each listed prerequisite to that course.

## Admission Requirements for Mathematics Teaching Secondary Major and Minor

Admission to the mathematics teaching secondary major or minor is selective. A cumulative grade point average of 2.50 is required in the pre-admission courses listed below. Further, students must successfully complete MATH 260 by spring quarter of the academic year of their acceptance into the program. The mathematics department will process applications once a year and notify students of their status by February 15. The deadline for submission of applications to the department is January 15. A completed application must include the standard major application form and a mathematics-advisor-approved graduation plan. Students planning to major or minor in secondary mathematics teaching must first take all Tier I courses (MATH 172, MATH 173, MATH 260, MATH 265, and MATH 272). Students must be accepted as a mathematics education major or minor prior to enrolling in Tier II courses (MATH 299E, MATH 320, MATH 324, MATH 311, MATH 331, MATH 332, MATH 355, MATH 360, MATH 361, MATH 430, MATH 455, and MATH 499E). MATH 311 is the only exception; this course may be taken after having completed MATH 130. Students applying for admission to the major may register for courses for the following quarter but will be dropped if not admitted. Upon admission to the major, all students will enroll in MATH 299E, Orientation Seminar: Secondary Mathematics, for the subsequent fall quarter.

Students interested in the secondary mathematics teaching program need to meet with a mathematics education advisor during their first quarter at CWU.

## Applicants for admission into the secondary mathematics teaching program: <br> 1. Must have a 2.5 or better GPA in the following courses: <br> ENG 102 - Composition II: Reasoning and Research <br> MATH 130 - Finite Mathematics . . . . . . . . 5 <br> MATH 172 - Calculus I. . . . . . . . . . . . . . . . . 5 <br> MATH 173 - Calculus II . . . . . . . . . . . . . . . 5

Pre-admission Total: 19
AND
2. Must have completed MATH 260 and MATH 265 with a grade of C or better, or be enrolled in MATH 260 concurrently with MATH 299E

## Bachelor of Arts Mathematics: Teaching Secondary Major

This major satisfies the endorsement for mathematics. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum.

## Required Courses

MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
MATH 260 - Sets and Logic . . . . . . . . . . . . . . . 5
MATH 265 - Linear Algebra I . . . . . . . . . . . . . . 4
MATH 272 - Multivariable Calculus I . . . . . . . 5
MATH 299E - Orientation Seminar:
Secondary Mathematics . . . . . . . . . . . . . . 2
MATH 311 - Statistical Concepts and
Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MATH 320 - History of Mathematics . . . . . . 3
MATH 324 - Methods and Materials in
Mathematics-Secondary . . . . . . . . . . . . . . 4
MATH 331 - Continuous Models . . . . . . . . . . . 3
MATH 332 - Discrete Models . . . . . . . . . . . . . 4
MATH 355 - College Geometry I . . . . . . . . . . 4
MATH 360 - Algebraic Structures I . . . . . . . . 3
MATH 361 - Algebraic Structures II . . . . . . . 3
MATH 430 - Introduction to Theory of
Numbers .................................... 3
MATH 455 - College Geometry II . . . . . . . . . 3
MATH 499E - Senior Seminar: Secondary
Mathematics
. 3
Total Credits: 64

## Mathematics: Teaching Secondary Minor

This is an endorsable minor for student teaching.

## Required Courses

MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
MATH 260 - Sets and Logic . . . . . . . . . . . . . . 5
MATH 265 - Linear Algebra I . . . . . . . . . . . . . 4
MATH 272 - Multivariable Calculus I . . . . . . 5
MATH 299E - Orientation Seminar:
Secondary Mathematics . . . . . . . . . . . . . . . 2
MATH 311 - Statistical Concepts and
Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MATH 320 - History of Mathematics ...... 3
MATH 324 - Methods and Materials in
Mathematics-Secondary . . . . . . . . . . . . . . . 4
MATH 355 - College Geometry I . . . . . . . . . . 4
MATH 360 - Algebraic Structures I . . . . . . . . . 3
MATH 455 - College Geometry II . . . . . . . . . 3
MATH 499E - Senior Seminar: Secondary
Mathematics ................................ 3
Total Credits: 51

## Bachelor of Arts <br> Middle Level Mathematics and Science Teaching Major

This major is designed for students who wish to teach mathematics and
science at the middle level (grades 5-8). The coursework provides experiences in math and science content and pedagogy including field experience and addresses the Washington State competencies for middle level math teachers and the Washington State competencies for middle level science teachers. Students must be accepted into the teacher preparation program (47-52 credits) and successfully demonstrate competency equivalent to the completion of MATH 154 prior to acceptance into this major. Students with strong high school mathematics preparation should take the math placement exam. According to the results of the exam students may satisfy the MATH 153 or MATH 153 and MATH 154 requirement. Students completing this major are required to demonstrate knowledge, skill, and disposition proficiencies through a program portfolio prior to student teaching. Students who complete this major and receive a passing score on the WEST-E exams for middle level mathematics and millde-level science are eligible to receive both the middle level math and science endorsements.

## Required Courses

## Science

BIOL 101 - Fundamentals of Biology . . . . . . . 5
CHEM 101 -Contemporary Chemistry and
Contemporary Chemistry Lab
PHYS 106 - Physics by Inquiry . . . . . . . . . . . . 5
GEOL 101/101LAB - Physical Geology and Physical Geology Lab .
OR
GEOL 102/101LAB - Geology of National Parks and Physical Geology Lab (5)
PHYS 101 - Introductory Astronomy . . . . . . . 5
SCED 301 - Interdisciplinary K-8 Science
Inquiry
.5

SCED 354 - Science, Society, and the Teaching
Community . . . . . . . . . . . . . . . . . . . . . . . . . 3

## Mathematics

MATH 130 - Finite Mathematics. . . . . . . . . . . 5
MATH 164 - Foundations of Arithmetic . . . . 5
MATH 250 - Intuitive Geometry for
Elementary Teachers.
4
MATH 170 - Intuitive Calculus . . . . . . . . . . . . 5
MATH 232 - Discrete Modeling for Middle Level Teachers .4

MATH 486 - Mathematics, Problem Solving, and Teaching

## Integrated Math and Science

MATH/SCED 323 - Teaching Middle School Mathematics and Science.3

## Education

EDEL 477 - Middle School Students and Their
Environment
.4
EDEL 478 - Developmentally Responsive
Curriculum in Middle Grades. . . . . . . . . . .
Advisor-approved course (EDEL 323, SCED
322, MATH 324, or SCED 324). $\qquad$

## Middle Level Mathematics Teaching Minor

This minor is designed for students who wish to teach math at the middle level (grades 5-9). Completion of this minor results in a middle level math endorsement for Washington State. The coursework provides experiences in math content and pedagogy including field experience and addresses the Washington State competencies for middle level math teachers. This program is only open to students admitted to majors that are endorsable or currently hold teaching endorsements for: Elementary Education, Secondary Math, Chemistry, Physics, Earth Science or Biology. Students must be accepted into the Teacher Preparation Program and have completed MATH 153 and MATH 154 prior to acceptance into this minor. Students with a strong high school mathematics preparation should take the Math Placement Exam. According to the results of the exam, students may satisfy the MATH 153 or MATH 153 and MATH 154 requirement. Students completing this minor are required to demonstrate knowledge, skill, and dispositions proficiency through a program portfolio prior to student teaching. Students must pass the WEST-E exam for middle level mathematics to receive the middle level math endorsement.

## Required Courses

MATH 130 - Finite Mathematics . . . . . . . . . . . 5
MATH 164 - Foundations of Arithmetic . . . . 5
MATH 170 - Intuitive Calculus . . . . . . . . . . . . 5
MATH 232 - Discrete Modeling for Middle Level Teachers
MATH 250 - Intuitive Geometry for Elementary Teachers. .4

MATH 323 - Teaching Middle School
Mathematics and Science
. 3
MATH 486 - Mathematics, Problem Solving, and Teaching . 4
EDEL 477 - Middle School Students and Their Environment
EDEL 478 - Developmentally Responsive
Curriculum in Middle Grades.
Total Credits: 37
In addition: elementary education majors must take EDCS 424 - Reading in the Content Fields (3).

## Admission Requirements for Mathematics Major and Minor

Admission to any major in the mathematics department will be considered after the first two quarters of calculus are taken (MATH 172 and MATH 173). Transfer students with the calculus background will generally take and successfully complete (2.0 or better) 10 hours of math beyond calculus to be admitted to a major. Application forms are available from the mathematics department office. Students must meet with an advisor in the mathematics department before being considered for major or minor. In addition,
students must earn a minimum grade of C in any course that fulfills a major or minor requirement.

## Bachelor of Science <br> (60-61 Credits) <br> (93-94 Credits)

## Mathematics Major

## Required Courses

MATH 172, 173 - Calculus I, II . . . . . . . . . . . 10
MATH 260 - Sets and Logic . . . . . . . . . . . . . . 5
MATH 265 - Linear Algebra I . . . . . . . . . . . . . 4
MATH 272, 273 - Multivariable
Calculus I, II
MATH 499S - Senior Seminar . . . . . . . . . . . . . 2
Select two of the following sequences. .18-19 (one of which must be abstract algebra or advanced analysis):
MATH 411A, 411B, 411C - Probability Theory and Mathematical Statistics, I, II . . . . . . . . . . . . . . . . . . . . 10
MATH 451, 452, 453 - Topology I, II, III 9
MATH 461, 462, 463 - Abstract
Algebra I, II, III . . . . . . . . . . . . . . . . . . . 9
MATH 471, 472, 473 - Advanced Analysis I, II, III . . . . . . . . . . . . . . . . . . 9
MATH 475, 476, 477 - Applied Analysis I, II, III . . . . . . . . . . . . . . . . . .
Departmentally-approved upper-division electives.

## Total Credits: 60-61

Students in the 93- to 94-credit major are also required to take:
MATH 311 - Statistical Concepts and

Methods

MATH 365 - Linear Algebra II . . . . . . . . . . . . 3
MATH 376, 377 - Differential
Equations I, II . . . . . . . . . . . . . . . . . . . . . . . . . 6
Select one from the following. . . . . . . . . . . . 4
CS 105 - The Logical Basis of Computing (4)
CS 110 - Programming Fundamentals I (4)
Lab Science sequence culminating in calculus-based course 15

Total Credits: 93-94

## Bachelor of Science in Mathematics Actuarial Science Specialization

An actuary is a business professional who uses specialized mathematical skills from probability and statistics to define, analyze, and solve financial and social problems. Actuaries create and manage insurance programs which reduce the adverse financial impact of both expected and unexpected things that happen to people, such as illnesses, accidents, and death. In addition, actuaries design pension programs, making sure there are sufficient resources to pay retirement and death benefits while also
charging participants in the insurance or retirement plan a fair price.

The bachelor of science in Mathematics Actuarial Science specialization is listed below and is designed to prepare a student in both the mathematics and business areas necessary for success in the rigorous but rewarding actuarial profession.

## Required Courses

ACCT 251 - Accounting I . . . . . . . . . . . . . . . . 5
CS 110 - Programming Fundamentals I .... 4
CS 367 - Advanced Visual Basic
Programming ............................ . . . 4
ECON 201 - Principles of Economics
Micro
ECON 202 - Principles of Economics
Macro . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
ECON 401 - Intermediate Microeconomic
Analysis . . . . . . . . . . . . . . . . . . . . . . . . . . . .
ECON 402 - Intermediate Macroeconomic
Analysis . . . . . . . . . . . . . . . . . . . . . . . . . . . .
FIN 370 - Introductory Financial
Management
.5
FIN 475 - Investments . . . . . . . . . . . . . . . . . . 5
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
MATH 265 - Linear Algebra I . . . . . . . . . . . . . . 4
MATH 272 - Multivariable Calculus I . . . . . . 5
MATH 273 - Multivariable Calculus II. . . . . . 5
MATH 311 - Statistical Concepts and
Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
MATH 410A - Advanced Statistical
Methods
....... 3
MATH 410B - Advanced Statistical
Methods
.3
MATH 411A - Probability Theory ......... . 4
MATH 411B - Mathematical Statistics I . . . . . 3
MATH 411C - Mathematical Statistics II . . . . 3
MATH 413 - Introduction to Stochastic
Processes
MATH 418A - Financial Mathematics I . . . . . 3
MATH 418B - Financial Mathematics II . . . . 3
Select one of the following sequences. . . . . 9
Loss Models
MATH 417A - Loss Models I (3)
MATH 417B - Loss Models II (3)
MATH 417C - Loss Models III (3)
Actuarial Mathematics
MATH 419A - Actuarial Mathematics I (3)
MATH 419B - Actuarial Mathematics II (3)
MATH 419C - Actuarial Mathematics III (3)

Total Credits: 108
Mathematics Minor
Required Courses
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
Departmentally approved electives in mathematics at the 200 level or above, which MUST include at least one of Math 260 or Math 265. 12

## Mathematics Courses

MATH 100A. Pre-algebra (5). This course is designed to prepare students for college mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts underlying algebra. Credits will not be allowed toward meeting bachelor's degree requirements.
MATH 100B. Introductory Algebra (5). This course is designed to prepare students for college mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts of algebra. Credits will not be allowed toward meeting bachelor's degree requirements.
MATH 100C. Intermediate Algebra (5).
This course is designed to prepare students for college level pre-calculus mathematics. Symbolic, graphical, and numeric representations will be studied to understand and apply the concepts needed to be successful in pre-calculus. Credits will not be allowed toward meeting bachelor's degree requirements.
MATH 101. Mathematics in the Modern World (5). Selected topics from the historical development and applications of mathematics together with their relationship to the development of our present society. Prerequisite: MATH 100B or satisfactory score on SAT, ACT, or COMPASS test.
MATH 102. Mathematical Decision Making
(5). Selected topics from probability, statistics, and mathematical decision making with real-world application. See admission and placements notes 1 in the mathematics department. Prerequisite: MATH 100B or satisfactory score on SAT, ACT, or COMPASS test.
MATH 130. Finite Mathematics (5). The language of sets, counting procedures, introductory probability, and decision making, introductory descriptive statistics. Meets General Education "reasoning" requirement and prepares student for introductory statistics courses in various departments. Prerequisite: MATH 100B or satisfactory score on SAT, ACT, or COMPASS test.
MATH 153. Pre-calculus Mathematics I
(5). A foundation course which stresses those algebraic and elementary function concepts together with the manipulative skills essential to the study of calculus. Prerequisite: MATH 100C or an 18 or better on the Math Placement Test (Intermediate).
MATH 154. Pre-calculus Mathematics II (5).
A continuation of MATH 153 with emphasis on trigonometric functions, vectors, systems of equations, the complex numbers, and an introduction to analytic geometry. Prerequisite: MATH 153 or a 17 or better on the Math Placement Test (Advanced).
MATH 164. Foundations of Arithmetic
(5). Structure of the real number system. Properties of and operations on integers, rationals, decimal representation,
percentages, proportion, graphing, and elementary problem solving. Recommended for the prospective elementary school teacher.
MATH 170. Intuitive Calculus (5). An intuitive approach to the differential and integral calculus specifically designed for students in the behavioral, managerial, and social sciences. Prerequisite: MATH 153 or permission. Not open to students with credit for MATH 172 or higher.
MATH 172. Calculus I (5). Theory, techniques, and applications of differentiation and integration of the elementary functions. Prerequisite: MATH 154 or a 19 or better on the Math Placement Test (Advanced).
MATH 173. Calculus II (5). Theory,
techniques, and applications of differentiation and integration of the elementary functions. Prerequisites: MATH 172.

MATH 232. Discrete Modeling for Middle Level Teachers (4). Discrete models including recurrence relations, finite differences, logic, applications of graph theory, applications of linear programming, and simple combinatorics. Prerequisites: MATH 170 and MATH 250.
MATH 250. Intuitive Geometry for Elementary Teachers (4). An intuitive approach to the geometry topics relative to the elementary school curriculum. Prerequisite: MATH 164.
MATH 260. Sets and Logic (5). Essentials of mathematical proofs, including use of quantifiers and principles of valid inference. Set theory as a mathematical system. Prerequisite: MATH 173 or CS 301 and MATH 172.
MATH 264. Functions for Middle Level
Teachers (5). Analyze and create algebraic models of functions on both continue and discrete systems. Apply function techniques to solve problems. Apply knowledge of functions and of society to communicate concepts of mathematical functions to a diverse group of middle school students. Prerequisites: MATH 100C or 18 or better on the math placement test (intermediate).
MATH 265. Linear Algebra I (4). Vector spaces, linear systems, matrices, and determinants. Prerequisite: MATH 173 or permission of instructor.
MATH 272. Multivariable Calculus I
(5). Differential and integral calculus of multivariable functions and related topics. Prerequisite: MATH 173.
MATH 273. Multivariable Calculus II
(5). Differential and integral calculus of multivariable functions and related topics. Prerequisite: MATH 272.
MATH 274. Principles of Calculus for Middle Level Teachers (3). Demonstrate a conceptual and procedural understanding of the fundamental elements of calculus including limits, continuity, differentiation, and integration. Apply knowledge of calculus and society to communicate concepts of motion mathematics to a diverse group of middle school students. Prerequisites: MATH 264 or MATH 154.

## MATH 275. Calculus for Secondary

Teachers (5). Conceptual and procedural understanding of the fundamental elements of calculus including limits, continuity, differentiation, and integration of single and multivariable functions. Prerequisite: MATH 173. Substitute for MATH 272 only for students in an endorsement or certification-only program.
MATH 298. Special Topics (1-6).
MATH 299E. Orientation Seminar: Secondary Mathematics (2). Introductory seminar for new mathematics education students focusing on problem solving, technical presentation of solutions, and electronic portfolio preparation. Prerequisite: Tier II Secondary Mathematics Education.
MATH 311. Statistical Concepts and
Methods (5). Hands-on activities for exploring data. Surveys, planned experiments, and observational studies. Modeling, sampling distributions, and statistical inference. MINITAB statistical computing language introduced and used extensively. Prerequisite: MATH 130 or permission of the instructor.
MATH 320. History of Mathematics (3). A study of the development of mathematics and the personalities involved. Prerequisite: MATH 260.
MATH 323. Teaching Middle School Mathematics and Science (3). Prospective teachers will learn and use the methods and materials needed to teach middle school students mathematics and science with emphasis on the use of experiments, manipulatives, problems solving, cooperative learning, and communication of understanding. Prerequisites: MATH 324 or EDEL 323 and SCED 324 or SCED 322. MATH 323 and SCED 323 are equivalent courses. Students may not receive credit for both.
MATH 324. Methods and Materials in Mathematics-Secondary (4). Prerequisites: MATH 355, MATH 265, EDCS 311, and permission of instructor.
MATH 330. Discrete Mathematics (5). Topics from logic, combinatorics, counting techniques, graph theory and theory of finite-state machines. Prerequisites: MATH 260 and permission.
MATH 331. Continuous Models (3). Students will use multiple integrals, line integrals, and differential equations to model physical situations. Prerequisite: MATH 272
MATH 332. Discrete Models (4). Discrete models including graph theory, difference equations, and the models of social choice, inherent logic combinatorics, and algebra. Prerequisites: permission and Tier II Secondary Mathematics Education.
MATH 355. College Geometry I (4). An inductive and deductive approach to intuitive geometry, modern Euclidean geometry, history of geometry, and axiomatic systems in geometry. Prerequisites: permission and Tier II Secondary Mathematics Education.

MATH 360. Algebraic Structures I (3). First course in the structure of algebraic systems includes the study of real number systems and other algebraic systems in the development of group theory. Prerequisites: permission and Tier II Secondary Mathematics Education.
MATH 361. Algebraic Structures II (3). The second course in the structure of algebraic systems, including rings, modules, and fields, and their associated morphisms. Prerequisites: permission, Tier II Secondary Mathematics Education, and MATH 360.
MATH 364. Axiomatic Systems (4). An introduction to the idea of an axiomatic system, including concepts such as consistency and completeness. This course is designed to provide students with the proof writing skills required for more advanced courses Prerequisite: MATH 260 with a grade of C or better.
MATH 365. Linear Algebra II (3). Vector spaces, linear transformations, bilinear and quadratic forms, eigenvalues, eigenvectors, similarity, inner products, and norms. Prerequisite: MATH 260 and MATH 265, both with grades of C or better.
MATH 371. Advanced Calculus (4). The basic concepts of the real numbers and calculus are presented from an axiomatic standpoint. This course also offers basic proof writing skills that are necessary for more advanced mathematics. Prerequisites: MATH 260 and Math 272.
MATH 376. Differential Equations I (3). Elementary methods of solutions of ordinary differential equations. Some numerical methods for solving ordinary differential equations with applications. Prerequisites: MATH 265 and MATH 272 or permission.
MATH 377. Differential Equations II (3). Elementary methods of solutions of ordinary differential equations. Some numerical methods for solving ordinary differential equations with applications. Prerequisites: MATH 376.
MATH 410A. Advanced Statistical Methods I (3). A thorough treatment of regression and correlation. Chi-square and other enumeration statistics. Non-parametric statistical principles of experimental design. Examples will be from a variety of fields. Prerequisite: MATH 311.
MATH 410B. Advanced Statistical Methods II (3). A thorough treatment of regression and correlation. Chi-square and other enumeration statistics. Non-parametric statistical principles of experimental design. Examples will be from a variety of fields. Prerequisite: MATH 410A.
MATH 411A. Probability Theory (4). Principal topics include: combinatorial theory, conditional probability, random variables, expectation and moments, generating functions, various discrete and continuous distributions, law of large numbers, central limit theorem. Prerequisite: MATH 273 or permission.

MATH 411B. Mathematical Statistics I (3). Derived distributions, point and interval estimation, hypothesis testing. Correlation and regression theory. Distribution free methods. Bayesian inference. Prerequisite: MATH 411A.
MATH 411C. Mathematical Statistics II (3). Derived distributions, point and interval estimation, hypothesis testing. Correlation and regression theory. Distribution free methods. Bayesian inference. Prerequisite: MATH 411B.
MATH 413. Introduction to Stochastic Processes (5). The Wiener Process, conditional probability and conditional expectation. Stationary and evolutionary processes. Various Poisson processes. Renewal counting processes. Discrete parameter Markov chains. Prerequisite: MATH 411A.
MATH 414. Time Series Analysis (3). Model building, parameter estimation, diagnostic checking of time series data; ARIMA models and forecasting. Analysis of seasonal models. Prerequisites: MATH 410B.
MATH 416A. Actuarial Science Problems II (1-2). Students discuss and present problems in probability and mathematical statistics important for actuaries. Prerequisite: MATH 411A or concurrent registration. May be repeated for a total of 3 credits.
MATH 416B. Actuarial Science Problems III (1-2). Students discuss and present problems in applied statistics important for actuaries. Prerequisite: MATH 410B or concurrent registration. May be repeated for a total of 3 credits.
MATH 417A. Loss Models I (3). Modeling process, calibration, and evaluation. Analyzing data, determining a suitable model including parameter values, and providing measures. Prerequisites: MATH 411A.
MATH 417B. Loss Models II (3). Modeling process, calibration, and evaluation. Analyzing data, determining a suitable model including parameter values, and providing measures of confidence for decisions based upon the model. Prerequisite: MATH 417A.
MATH 417C. Loss Models III (3). Modeling process, calibration, and evaluation. Analyzing data, determining a suitable model including parameter values, and providing measures of confidence for decisions based upon the model. Prerequisite: MATH 417B.
MATH 418A. Financial Mathematics I (3). Fundamental concepts and calculations for cash flows as a basis for future use in reserving, valuation, pricing, asset/liability management, investment, and capital budgeting. Prerequisites: MATH 173 and permission.
MATH 418B. Financial Mathematics II (3). Fundamental concepts and calculations for cash flows as a basis for future use in reserving, valuation, pricing, asset/liability management, investment, and capital
budgeting. Prerequisites: MATH 418A and permission.
MATH 418C. Financial Mathematics III
(3). Introduction to financial instruments, including derivatives, and the concept of no-arbitrage as it relates to financial mathematics. Introduction to financial economics and key terms: derivatives, forwards, short and long positions, cal and put options, spreads, collars, hedging, arbitrage, and swaps. Prerequisite: MATH 418B.
MATH 419A. Actuarial Mathematics I (3). Mathematics of analyzing and pricing insurance, annuities, and pension products Life contingencies, risk theory, and techniques in reserving and valuation. Prerequisites: MATH 411A and permission.
MATH 419B. Actuarial Mathematics II (3). Mathematics of analyzing and pricing insurance, annuities, and pension products. Life contingencies, risk theory, and techniques in reserving and valuation. Prerequisites: MATH 419A and permission.
MATH 419C. Actuarial Mathematics III (3). Mathematics of analyzing and pricing insurance, annuities, and pension products. Life contingencies, risk theory, and techniques in reserving and valuation. Prerequisites: MATH 419B and permission.
MATH 430. Introduction to Theory of
Numbers (3). Euclidean algorithm,
fundamental theorem of arithmetic, Diophantine equations, primitive roots and indices, and other number theory topics. Prerequisite: MATH 260.
MATH 440. Mathematical Theory of Financial Economics (5). Concepts, principles, and techniques needed for the professional actuarial SOA/CAS Exam MFE are covered in this course. Topics to explore include interest rate models, bond price models, rational valuation of derivative securities, and delta-hedging as risk management techniques. Prerequisite: MATH 418C.
MATH 451. Topology I (3). An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group. Prerequisites: MATH 260 and MATH 265.
MATH 452. Topology II (3). An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group. Prerequisite: MATH 451.

MATH 453. Topology III (3). An introduction to point-set and algebraic topology. Topics may include metric spaces, topological spaces, homotopy theory, and the fundamental group. Prerequisite: MATH 452.

MATH 455. College Geometry II (3).
Introduction to non-Euclidean geometry including history, deductive reasoning, and topics in hyperbolic and elliptical geometry. Prerequisites: permission, MATH 355, and Tier II Secondary Mathematics Education.

MATH 461. Abstract Algebra I (3). Algebraic structures such as groupoids, groups, rings, and fields. Prerequisites: MATH 260 and MATH 265.
MATH 462. Abstract Algebra II (3). Algebraic structures such as groupoids, groups, rings, and fields. Prerequisite: MATH 461.
MATH 463. Abstract Algebra III (3). Algebraic structures such as groupoids, groups, rings, and fields. Prerequisite: MATH 462.
MATH 471. Advanced Analysis I (3). Further development of properties of calculus. Prerequisites: MATH 260 and MATH 273.
MATH 472. Advanced Analysis II (3). Further development of properties of calculus. Prerequisite: MATH 471.
MATH 473. Advanced Analysis III (3). Further development of properties of calculus. Prerequisite: MATH 472.
MATH 475. Applied Analysis I (3). Selected topics from advanced analysis especially useful to the engineer, chemist, physicist, and applied mathematician. Prerequisite: MATH 376 or permission.
MATH 476. Applied Analysis II (3). Selected topics from advanced analysis especially useful to the engineer, chemist, physicist, and applied mathematician. Prerequisite: MATH 475.
MATH 477. Applied Analysis III (3). Selected topics from advanced analysis especially useful to the engineer, chemist, physicist, and applied mathematician. Prerequisite: MATH 476.
MATH 486. Mathematics, Problem Solving, and Teaching (4). Written and oral projects to show mastery in teaching the middle level math concepts from a problem solving approach. Prerequisites: MATH 170 and MATH 250.
MATH 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning
plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
MATH 491. Workshop (1-6). The title of the workshop and the credit to be earned shall be determined at the time the workshop is approved. Designed to give an opportunity for individual and group study of problems in mathematics.
MATH 492A. Laboratory Experience in Teaching Mathematics (2). Serves the purpose of providing the opportunity for competent senior or graduate students to receive credit and experience in developing procedures and techniques in teaching college-level mathematics. Prerequisite: 30 credits in mathematics.
MATH 492B. Laboratory Experience in Teaching Mathematics (2). Serves the purpose of providing the opportunity for competent senior or graduate students to receive credit and experience in developing procedures and techniques in teaching college-level mathematics. Prerequisite: 30 credits in mathematics.
MATH 495. Undergraduate Research (1). May be repeated for up to 5 credits.
MATH 496. Individual Study (1-6).
Prerequisite: permission of instructor.
MATH 498. Special Topics (1-6).
MATH 499. Seminar (1-5).
MATH 499E. Senior Seminar: Secondary Mathematics (3). Individualized projects using oral presentations and written electronic portfolio to show mastery in all program outcomes for teaching secondary mathematics. Prerequisites: permission, MATH 324, and Tier II Secondary Mathematics Education.
MATH 499S. Senior Seminar (2).
Individualized projects using oral presentations and written portfolio to show mastery in all program outcomes for mathematics.


## PHYSICS <br> DEPARTMENT

Ellensburg
Lind Hall, room 201

509-963-2727
Fax 509-963-2728
www.cwu.edu/ ~physics
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff <br> Chair

Michael Jackson, PhD

## Professors

Michael Jackson, PhD, optics, spectroscopy Bruce Palmquist, PhD , science education

## Associate Professor

Michael Braunstein, PhD, nuclear physics, astronomy

## Assistant Professors

Andrew A. Piacsek, PhD, acoustics
Sharon L. Rosell, MS, nuclear physics

## Staff

Erin Sargent, secretary
Greg Lyman, instructional and classroom technician

## Department Information Overview

Physics is the study of the universe and its elements-from the interaction of subatomic particles and investigations in nanoscale science, to the motion of everyday objects, to the evolution of galaxies. Physics involves discovering the fundamental rules that describe matter and energy on every scale, hence it is the basic science that underlies all the natural sciences.

Most businesses want people who can analyze complex situations and solve problems. CWU physics majors learn these skills along with computational and electronics skills. The physics curriculum includes theoretical courses as well as laboratory classes and hands-on research that provide the practical training relevant to both graduate school or professional work in science and engineering. Recent acquisitions of state-of-the-art instrumentation in astronomy, acoustical physics, and lasers enrich students' experience in the laboratory and research setting. Students also have the opportunity to participate in programs outside the formal courses offered by participating in the department's awardwinning Physics Club and Astronomy Club. The CWU physics program offers a BS degree, a BA degree (which doubles as our teaching degree) and engineering opportunities through our dual-degree physics/engineering program.

## Department Standards

All students must meet with the physics chair to map out a four-year plan. The student can then select a faculty advisor. All of the faculty members listed above are physics major advisors. Most upper-level physics courses are offered at least every other year. Thus, students who wait too long to meet with an advisor may have their graduation delayed. All physics majors must complete a Physics major portfolio.

## Honors Designation

The honors designation in physics recognizes the academic excellence of its majors. Students in the department's BA and BS programs are eligible for this designation and all physics majors are urged to consider applying. The honors designation in physics is offered in collaboration with Sigma Pi Sigma, the National Physics Honors Society. Please contact the physics department chair for more information.

## Bachelor of Arts <br> Physics Major

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

The BA program is for students wanting a broad liberal arts education with an emphasis in physics. It may be a suitable foundation for students who are planning a career not usually regarded as physics, such as business education, law, medicine, writing, environmental concerns, public safety, or computer programming.

## Special Requirements:

This major satisfies the criteria for an endorsement in physics and qualifies students to teach physics at the high school, middle, or junior high levels. Students should seriously consider working toward endorsement in a second area, such as biology, chemistry, earth science, middle level science, middle level mathematics, or mathematics. Students taking this major are required to complete the Professional Education Program requirements offered through the Department of Educational Foundations and Curriculum. Students completing this program are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition to the above requirements, students must pass the WEST-E exam for physics to receive a physics endorsement. Student seeking an endorsement in physics must take SCED 324 and SCED 487.

## Required Courses

General Physics
PHYS 181, 181LAB, 182, 182LAB, 183, 183LAB
General Chemistry I, II
CHEM 181, 181LAB, 182, 182LAB
Calculus ..... 20
MATH 172, 173, 272, 273
MATH 265 - Linear Algebra I .....  4
Modern Physics I and II . .....  8
PHYS 317, 318

PHYS 331 - Laboratory Practices andTechniques 3
PHYS 333 - Experimental Physics I ..... 3
PHYS 361 - Computational Physics ..... 4
PHYS 363 - Optics. .....  4
PHYS 489 - Senior Assessment .....  1
PHYS 495 - Undergraduate Research .....  2
Department-approved electives .....  9Must include a department-approvedcourse sequence (such as PHYS 351/352,

PHYS 381/382, PHYS 334/463, PHYS 492/
SCED324/487, PHYS 474/475 - see your physics major advisor for details).

Total Credits: 83

## Bachelor of Science <br> Physics Major

Those interested in receiving an advanced degree in physics or engineering may choose the BS in physics. The BS degree is designed for individuals planning careers in physics and related technical fields or in areas where knowledge of basic scientific principles is necessary. Depending on math preparation, these students should be able to complete the BS in four years at CWU.
Required Courses
General Physics ..... 15
PHYS 181, 181LAB, 182, 182LAB,183, 183LAB
General Chemistry I, II. ..... 10
CHEM 181, 181LAB, 182, 182LAB20
MATH 172, 173, 272, 273
MATH 265 - Linear Algebra I .....  4
MATH 376 - Elementary Differential Equations I .....  3
PHYS 317, 318, Modern Physics I, II .....  8
PHYS 331 - Laboratory Practices and Techniques ..... 3
PHYS 333 - Experimental Physics I .....  3
PHYS 342 - Thermodynamics .....  4
PHYS 351 - Analytical Mechanics I. .....  3
PHYS 352 - Analytical Mechanics II ..... 3
PHYS 361 - Computational Physics . .....  4
PHYS 363 - Optics .....  4
PHYS 381, 382, 383 - Electromagnetic
Theory I, II, III ..... 12
PHYS 474 - Quantum Mechanics I . .....  . 4
PHYS 489 - Senior Assessment .....  1
PHYS 495 - Undergraduate Research .....  4
Department-approved electives .....  5
Total Credits: 110

## Dual-degree Physics/Engineering Program

This dual-degree program enables a student to receive a baccalaureate degree in physics from CWU and a bachelor of science from an appropriate engineering institution in
a respective engineering discipline. The total length of time for both degrees is expected to be about five years, with approximately three years at CWU (dating from enrollment in MATH 172) and approximately two years at the engineering institution. At CWU, students must complete a minimum of 135 credits, including all general education requirements. Additional courses may be required depending on the specific engineering discipline. Be sure to consult the appropriate dual-degree engineering advisor for details.

In order to receive the baccalaureate degree from CWU, dual-degree students must also complete the remaining credits (to total a minimum of 180 credits) in engineering at the Engineering Institution and transfer these credits to CWU. The remaining credits must include the appropriate number of 300 -level or above from the Engineering Institution to satisfy CWU graduation requirements. This transfer of credits and awarding of the baccalaureate degree by CWU can take place as soon as the student earns the necessary credits.

## Special Requirements:

Early consultation with the physics department chair is mandatory to ensure that specific additional requirements of particular engineering curricula are also satisfied. It is solely the student's responsibility to apply and gain admission to the Engineering Institution. It is also the individual student's responsibility to submit an official transcript of the work completed after leaving CWU and to request awarding of the baccalaureate degree in physics.

## Physics Minor

The Physics minor is an excellent complement to a variety of other science majors. It is also ideal for students who want to reinforce a liberal arts major with a technical background.

## Special Requirements:

Students taking this minor to obtain a teaching endorsement can receive a teaching endorsement in physics only if the following requirements are met:

1. The student is working on an endorsement in biology, chemistry, earth science, general science (if not the chosen designated science area), or mathematics.
2. The student passes the WEST-E exam for physics to receive a physics endorsement.
3. The student successfully completes SCED 324 and PHYS 492. SCED 324 requires admission to the Teacher Preparation Program.
4. The student demonstrates proficiency of student learning outcomes through a program portfolio prior to student teaching.

## Required Courses

General Physics
PHYS 181, 181LAB, 182, 182LAB, 183, 183LAB
Modern Physics I, II . . . . . . . . . . . . . . . . . . . . . 8
PHYS 317, 318
PHYS 333 - Experimental Physics I . . . . . . . . 3
MATH 172, 173 - Calculus I, II . . . . . . . . . . . . 10
Select one of the following. . . . . . . . . . . . . 3- 7
CHEM 381 - Physical Chemistry
(Thermodynamics) (5) OR
EET 312 - Basic Electronics (5) OR
PHYS 331 - Laboratory Practices and
Techniques (3) OR
PHYS 342 - Thermodynamics (4) OR
PHYS 363 - Optics (4) OR
PHYS 492 - Laboratory Experience in
Teaching Physics (2)
AND
SCED 324 - Science Education in Secondary Schools (4)

Total Credits: 39-43

## Astronomy Minor

The astronomy minor is an excellent complement to a variety of other science majors. It is also ideal for students who want to reinforce a liberal arts major with a science background. Astronomy minors may not use any courses in this minor as physics major electives.

## Required Courses

Introductory Astronomy of the
Solar System
PHYS 101, 102
Introductory or General Physics. . . . . . . . . . 15
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB
OR
PHYS 181, 181LAB, 182, 182LAB,
183, 183LAB
PHYS 301 - Stellar Astrophysics . . . . . . . . . . . 4
PHYS 317 - Modern Physics I . . . . . . . . . . . . . 4
MATH 172, 173 - Calculus I, II . . . . . . . . . . . . 10
Select Either . . . . . . . . . . . . . . . . . . . . . . . . . . 2
PHYS 492 - Laboratory Experience in Teaching Physics (2)
OR
PHYS 495 - Undergraduate Research (2)
Total Credits: 44

## Physics Courses

PHYS 101. Introductory Astronomy I (5).
An inquiry-based introduction to celestial motions, celestial objects, observational astronomy, and the physics associated with each. Emphasis on stars and planets. This is an activity-based lecture/lab course.
PHYS 102. Introductory Astronomy II (4). An inquiry-based introduction to celestial motions, celestial objects, observational astronomy, and the physics associated with each. Emphasis on stars and planets. This is a single activity-based course combined with lecture and lab.

PHYS 103. Physics of Musical Sound
(4). Basic physical principles of sound and vibration; how and why musical instruments produce their sounds. Topics include sound analysis techniques, room acoustics, musical scales, and the perception of sound. Four lectures and two hours laboratory per week. Must be taken concurrently with PHYS 103LAB.
PHYS 103LAB. Physics of Musical Sound Laboratory (1). Must be taken concurrently with PHYS 103.
PHYS 106. Physics Inquiry (5). An
introduction to fundamental physics topics in matter, motion, electricity, and magnetism.
PHYS 108. Light and Color (4). An introduction to topics in light and color with applications to technology in the arts.
PHYS 111. Introductory Physics (4). Topics in physics including kinematics and dynamics. Analyzing physical systems using algebra and trigonometry. Not open to students with credit in PHYS 181. Prerequisite: C or better in MATH 153 or the appropriate score on the Advanced Math Placement test for placement into MATH 154. Must be taken concurrently with PHYS 111LAB.
PHYS 111LAB. Introductory Physics Laboratory (1). Investigation of topics in physics including kinematics and dynamics. Must be taken concurrently with PHYS 111.
PHYS 112. Introductory Physics II (4).
Topics in physics including rotational dynamics, wave mechanics, and conservation principles. Analyzing physical systems using algebra and trigonometry. Prerequisite: PHYS 111. Must be taken concurrently with PHYS 112LAB.
PHYS 112LAB. Introductory Physics Laboratory II (1). Investigation of topics in physics including rotational dynamics, wave mechanics, and conservation principles. Prerequisite: PHYS 111. Must be taken concurrently with PHYS 112.
PHYS 113. Introductory Physics III (4).
Topics in physics including electromagnetic fields and optics. Analyzing physical systems using algebra and trigonometry. Prerequisite: PHYS 111. Must be taken concurrently with PHYS 113LAB. .
PHYS 113LAB. Introductory Physics Laboratory III (1). Investigation of topics in physics including electromagnetic fields and optics. Must be taken concurrently with PHYS 113.
PHYS 181. General Physics (4). Topics in physics including kinematics and dynamics. Analyzing physical systems using algebra, trigonometry, and calculus. Pre or corequisites: MATH 172. Must be taken concurrently with PHYS 181LAB.
PHYS 181LAB. General Physics Laboratory
(1). Investigation of topics in physics including kinematics and dynamics. Must be taken concurrently with PHYS 181. Introduction to the process of science primarily through experimental investigation.

PHYS 182. General Physics II (4). Topics in physics including rotational dynamics, wave mechanics, and conservation principles. Analyzing physical systems using algebra, trigonometry, and calculus. Prerequisite: PHYS 181. Pre- or co-requisite: MATH 173. Must be taken concurrently with 182LAB.
PHYS 182LAB. General Physics Laboratory II (1). Investigation of topics in physics including rotational dynamics, wave mechanics, and conservation principles. Must be taken concurrently with PHYS 182.
PHYS 183. General Physics III (4). Topics in physics including electromagnetic fields and optics. Analyzing physical systems using algebra, trigonometry, and calculus. Prerequisite: PHYS 181. Pre- or co-requisite: MATH 173. Must be taken concurrently with 183LAB.
PHYS 183LAB. General Physics Laboratory III (1). Investigation of topics in physics including electromagnetic fields and optics. Must be taken concurrently with PHYS 183.
PHYS 296. Individual Study (1-6).
Prerequisite: permission of instructor.
PHYS 298. Special Topics (1-6).
PHYS 301. Stellar Astrophysics (4). Application of physical principles to understanding processes and phenomena associated with stars. Prerequisites: PHYS 101, PHYS 317, and MATH 173.
PHYS 317. Modern Physics I (4). Topics in physics including relativity, particle physics, and history of modern physics. Analyzing physical systems using calculus, algebra, and trigonometry. Prerequisites: PHYS 113/113LAB or PHYS 183/183LAB, MATH 173.
PHYS 318. Modern Physics II (4). Topics in physics including quantum physics and atomic structure. Analyzing physical systems using calculus, algebra, and trigonometry. Prerequisite: PHYS 317.
PHYS 331. Laboratory Practices and Techniques (3). Topics in experimental techniques with emphasis in electronic systems. Prerequisite: PHYS 183/183LAB. One class meeting and six hours laboratory per week.
PHYS 333. Experimental Physics I (3). Topics in experimental techniques used in physics. Prerequisites: PHYS 331 or by permission. One class meeting and six hours laboratory per week.
PHYS 334. Experimental Physics II (3). Topics in experimental techniques used in physics. Prerequisites: PHYS 333. One class meeting and six hours laboratory per week.
PHYS 342. Thermodynamics (4). The laws of thermodynamics and its application to macroscopic systems. Prerequisite or corequisite: PHYS 318.
PHYS 351. Analytical Mechanics I (3). Introduction to advanced physical concepts and mathematical techniques associated with dynamic systems including conservation laws, non-conservative forces, oscillating systems, non-inertial reference frames, and central-force motion.

Prerequisites: PHYS 183/183LAB. Pre- or co-requisites: MATH 273, MATH 376.
PHYS 352. Analytical Mechanics II (3). Further study of dynamic systems. Introduction to coordinate transformations, variational principles, Lagrangian and Hamiltonian methods, and nonlinear systems. Prerequisite: PHYS 351.
PHYS 361. Computational Physics
(4). Numerical methods of studying physical properties of realistic systems. FORTRAN, IMSL/MATH Library, and MATHEMATICA will be introduced. Prerequisite: PHYS 183/183LAB. Corequisite: MATH 265.
PHYS 363. Optics (4). The mathematics of wave motion, electromagnetic theory, propagation of light, geometrical optics, and physical optics. Includes the experimental investigation of optical phenomena. Prerequisites: PHYS 113/113LAB or PHYS 183/183LAB, MATH 173. Three class meetings and two hours laboratory per week.
PHYS 381. Electromagnetic Theory I
(4). Topics in electrostatics including electric fields, electric potential, Gauss' law, electrostatic energy, and multipole expansions. Prerequisites: PHYS 183/183LAB, MATH 273, MATH 265.
PHYS 382. Electromagnetic Theory II (4). Topics in electrostatics and magnetostatics including the electrostatics of polarizable media, vacuum magnetostatics, magnetostatics in matter, and introduction to the Maxwell equations. Prerequisite: PHYS 381.
PHYS 383. Electromagnetic Theory III
(4). Topics in the Maxwell equations, electrodynamics, and electromagnetic waves. Prerequisite: PHYS 382.
PHYS 396. Individual Study (1-6). Prerequisite: permission of instructor.
PHYS 398. Special Topics (1-6).
PHYS 463. Fundamentals of Lasers (4). Overview of laser technology with emphasis on laser characteristics, safety, and applications. Prerequisite: PHYS 363.
PHYS 474. Quantum Mechanics I (4). Methods of quantum mechanics and applications to physical systems. Examples from nuclear, atomic, and molecular physics. Prerequisites: PHYS 318, Math 376.
PHYS 475. Quantum Mechanics II (4). Methods of quantum mechanics and applications to physical systems. Examples from nuclear, atomic, and molecular physics. Prerequisites: PHYS 474.
PHYS 489. Senior Assessment (1). An end-of-major course consisting of curriculum review and program assessment activities. Prerequisite: by permission. For senior physics majors only.
PHYS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval
required. May be repeated. Grade will be S or U.
PHYS 491. Workshop (1-6). Prerequisite: permission of instructor.
PHYS 492. Laboratory Experience in Teaching Physics (2). Prerequisite: permission of instructor. May be repeated for a total of 6 credits.
PHYS 495. Undergraduate Research (2). Prerequisite: permission of instructor. May be repeated for a total of 12 credits.
PHYS 496. Individual Study (1-6).
Prerequisite: permission of instructor.
PHYS 498. Special Topics (1-6).
PHYS 499. Seminar (1). May be repeated for credit. Grade will be $S$ or $U$.

## POLITICAL SCIENCE DEPARTMENT

Ellensburg
Psychology Bldg., room 414
Phone: 509-963-2408
FAX: 509-963-1134
www.cwu.edu / ~polisci/index.html See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Todd Schaefer, PhD

## Professors

Michael A. Launius, PhD, comparative politics, Asian politics, international political economy, international 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, political development

## Associate Professor

Matthew Manweller, PhD, constitutional law, American political thought, American political economy, direct democracy

## Assistant Professors

Gilberto Garcia, PhD, Latino politics and studies, Latin American politics, comparative politics, and U.S.-Mexico border relations
Barb Rieffer-Flanagan, PhD, political theory, comparative politics, politics of the Middle East, international human rights, religion and politics

## Visiting Assistant Professor

Cameron Otopalik, PhD, international politics, comparative politics, international political economy, politics of development

## Emeritus Professor

Robert C. Jacobs, PhD, American law and politics

## Staff

Cyndie Strawder, secretary senior

## Department Information

The department provides an opportunity for students to become knowledgeable about the general subject matter of political science, while also offering a variety of courses that can provide depth in an area of the student's interest. Flexibility in the selection of courses is stressed.

The department requires all political science majors to participate in the end-ofmajor assessment exercise at the conclusion of their senior year. Information on the assessment requirement may be obtained from the department's main office.

Students must earn a grade of C- or better in order for that course to count in their Political Science major.

## Political Science Honors

Political science majors will qualify for honors at graduation with an overall GPA of 3.00 and a GPA of 3.50 in all political science courses.

Students may choose either a 47-credit major or a 62-credit major. Those who have a second major or who have a minor in another discipline may opt for the 47-credit major.

Political Science Core Requirements
POSC 101 - Introduction to Politics . . . . . . . . 5
POSC 210 - American Politics . . . . . . . . . . . . . . 5
POSC 260 - Comparative Politics . . . . . . . . . . 5
POSC 270 - International Politics . . . . . . . . . . 5
Political Science Core Total Credits: 20

## Bachelor of Arts <br> Political Science Major <br> (47 Credits) <br> (62 Credits)

(NOTE: Students seeking a BA degree must complete one year college / university study or two years high school study of a single foreign language.)

## Required Courses

Political Science Core . . . . . . . . . . . . . . . . . . . 20
POSC 489 - Senior Assessment . . . . . . . . . . . . . 2
Select from the following. . . . . . . . . . . . . . . . 5
POSC 481 - Early Political Thought (5)
POSC 482 - Early Modern Political Thought (5)
POSC 483 - Recent Political Thought (5) POSC 485 - American Political Thought and Culture (5)

Electives
Select from any other courses in this
department. (Any transfer political science electives must be approved by the department.)
47-credit major (20)
62 -credit major (35)
Total Credits: 47-62

## Political Science Minor

## Required Courses

Political Science Core . . . . . . . . . . . . . . . . . . . 20
Electives20

Select from any other courses in this department. (Any transfer political science electives must be approved by the department.)

Total Credits: 30

## Political Science Courses

POSC 101. Introduction to Politics (5).
The basic ideas around which political debate revolves and from which political institutions evolve.
POSC 210. American Politics (5). Origin and development of the United States government; structure, political behavior, organizations and processes; rights and duties of citizens. For general education (breadth) credit, a student must be enrolled in or have completed ENG 101.
POSC 230. State and Local Government (5).
POSC 260. Comparative Politics (5). Comparative political analysis, utilizing a variety of methods and theoretical approaches; application to selected western and non-western systems. Recommended to precede other courses in comparative politics.
POSC 270. International Politics (5). Conditions and principles governing the contemporary nation-state system.
POSC 298. Special Topics (1-6).
POSC 311. Women and Politics (5). The politics of human sexuality: men's and women's rights, sex roles, sexual discrimination, laws governing sexuality, and related issues.
POSC 312. Public Opinion and Political Communication (5). The formation, measurement, and political impact of public opinion. The relationship of mass media to American political attitudes and opinions.
POSC 313. The Legislative Process (5). The Congress of the United States, drafting of bills, legislative leadership, the committee system, relation to executive and judicial branches, pressure groups.
POSC 314. American Presidency (5). The office of the chief executive: its constitutional, political, and administrative processes.
POSC 315. Political Campaigns and Elections (5). Evaluations of campaign techniques and practices; campaign
financing and expenditures; voting behavior; election theory; elections and public policy.
POSC 316. Latinos and the US Political System (5). This course examines the political reality of Latinos in the United States: a diverse population made up largely of Mexican, Puerto Rican, Cuban American, and other Latinos of Central and South American origins.
POSC 318. Political Parties and Interest Groups (5). Theories of party systems; elitism and pluralism; party organization, functions, and activities; status, functions, and activities of interest groups in the public policy-making process.
POSC 320. Public Administration (5). Setting, purpose, functions, and performance of public bureaucracy in the United States.
POSC 325. Introduction to Public Policy (3). Institutional context, politics, and processes of agenda setting and policy formulation, implementation, evaluation, change and termination in the United States.
POSC 340. Politics and American Capitalism (5). A survey of the interrelationship of the worlds of politics and business enterprise in American history; analysis of relevant philosophical and ideological arguments; case studies in such areas as industrial and trade policy.
POSC 341. Politics and Religion (5). The impact of religion upon American political thought and behavior.
POSC 342. U.S. Foreign Policy (5). Factors, processes, and techniques in the formulation and execution of the foreign policy of the United States.
POSC 350. Introduction to Public Law (5). Legal bases and structure of governmental organization; fundamental doctrines and principles of constitutional, international, and administrative law.
POSC 361. Latin American Politics (5). A comparative introduction to the political systems, cultures, and histories of Latin America and to prominent theories on democracy and political and economic development.
POSC 362. Western European Politics (5). Comparative analysis of politics and government of selected European countries.
POSC 363. Russian and Soviet Politics (5). Evolution, patterns, and comparative analyses.
POSC 365. African Politics (5). Comparative analysis of the political systems of the African continent, including historical, social, economic, and international contexts.
POSC 366. Government and Politics of East Asia (5). An introduction to the politics and governments of selected East Asian countries. Focus will center on China, Japan, and Korea.
POSC 367. Politics of Japan (5). Investigation and analysis of politics and government in contemporary Japan.
POSC 369. Korean Politics (5). Political systems, institutions, and processes of contemporary North and South Korea.

POSC 372. Politics of Globalization (5).
Inquiry in the nature and trends of globalization from the economical, political, and cultural perspectives, and their impacts on our way of life. Roles of government, non-government organizations, and global institutions will be examined.
POSC 373. International Politics of the Pacific Rim (5). Political and economic relations of the contemporary Pacific Rim. Special focus on North America, Russia, and East Asia.
POSC 375. The Middle East and International Politics (5).
POSC 376. International Organization (3). Background, concepts, structure, and functions of international organization.
POSC 378. International Political Economy (5). Political problems of management and development in the global economy and the prospects for creating improved mechanisms at the international level and for less-developed countries.
POSC 398. Special Topics (1-6).
POSC 411. American Indian Politics and Sovereignty (4). Examines American Indians as sovereign nations and as participants in U.S. politics. Some comparison with native peoples in other western polities. Provides historical and contemporary overview of legal and political experiences of American Indians.
POSC 429. Research Seminar in Public Policy (3). Review of theory and methods, proposal for policy analysis, preparation and presentation of policy analysis.
Prerequisites: POSC 320 and POSC 325.
POSC 441. Politics and Film (5). Since its inception, film has been used to convey political ideas and ideologies, as well as offer social and political criticism. This class will examine the techniques film directors and writers use to "manipulate" the viewing audience.
POSC 451. Introduction to Constitutional Law (5). Role of the United States Supreme Court in shaping governmental structure of the United States.
POSC 452. The Constitution and Human
Rights (5). Role of the United States Supreme Court in the development of political and social rights.
POSC 460. Contemporary Issues in Comparative Politics (3). Focus on a

specific contemporary issue in the field of comparative politics, with an emphasis on in-depth analysis and utilization of available research tools. Subject matter will vary with the instructor and with the changing nature of world politics. May be repeated once for a maximum of 6 credits.
POSC 470. Contemporary Issues in International Relations (3). Focus on specific contemporary issues in the field of international politics, with an emphasis on in-depth analysis and utilization of available research tools. Subject matter will vary with the instructor and with the changing nature of world politics. May be repeated once for a maximum of 6 credits.
POSC 475. International Human Rights (5). A survey of internationally recognized human rights, analysis of relevant international laws, case studies in women's rights, minority rights, and humanitarian policies.
POSC 481. Early Political Thought (5). Plato to Machiavelli.
POSC 482. Early Modern Political Thought
(5). Political thought in the 16th, 17th, and 18th centuries.
POSC 483. Recent Political Thought (5). Political thought in the 19th and 20th centuries.
POSC 485. American Political Thought and Culture (5). The ideas and circumstances that have shaped the political culture of the U.S., as reflected in the works of selected political theorists, politicians, and literary figures.
POSC 488. Introduction to Political Science Methods and Research (5). Class will introduce students to the research methods of political scientists. Taught in a seminar format, the class will engage in an original research project culminating in a peerreviewed article submission to an academic journal. Students will learn to write literature reviews, collect data, analyze data using SPSS, and write academic research papers. Prerequisite: permission of the instructor.
POSC 489. Senior Assessment (2). A "capstone" course designed to assess students' mastery of fundamental knowledge of politics and of writing and analytical skills. Prerequisite: senior standing. Student needs to have taken or be enrolled in POSC 101, POSC 210, POSC 260, POSC 270, and POSC 481, or POSC 482, or POSC 483, or POSC 485.
POSC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
POSC 496. Individual Study (1-6).
Prerequisite: permission of instructor. POSC 498. Special Topics (1-6).
POSC 499. Seminar (1-5).

## PSYCHOLOGY DEPARTMENT

Ellensburg
Psychology Bldg., room 421
509-963-2381
Fax: 509-963-2307
www.cwu.edu / ~psych
See Web site for how this major could be
used for educational and career purposes.

## Faculty and Staff

Chair
Stephanie Stein, PhD

## Professors

Terry L. DeVietti, PhD, physiological psychology, experimental
Roger S. Fouts, PhD, interim dean of Graduate Studies and Research, general experimental, language acquisition, primate behavior, comparative psychology
Eugene R. Johnson, EdD, school psychology, psychological and educational evaluation, exceptional children
Susan D. Lonborg, PhD, psychotherapy research, psychology of women, clinical and research ethics, career development, health psychology
Wayne S. Quirk, PhD, provost, sensation and perception, neuroscience
Stephen B. Schepman, PhD, statistics, personality theories
Anthony J. Stahelski, PhD, organization development, social psychology, small group interaction
Stephanie Stein, PhD, school psychology, behavior disorders in children, lifespan development, school-based assessment
Elizabeth M. Street, EdD, educational psychology, learning theory, exceptional children, behavioral analysis

## Associate Professors

Robert Brammer, PhD, multicultural counseling, counseling supervision, adolescent interventions, psychology of religion
W. Owen Dugmore, PhD , counseling, psychology of adjustment
Marte Fallshore, PhD, human learning and memory, development of expertise, statistics, cognition, environmental decision-making, crime severity
Megan D. Matheson, PhD, general experimental, primate behavior, comparative psychology, evolutionary psychology
Jeffrey M. Penick, PhD, counseling psychology, health psychology, adult development
Terrence J. Schwartz, PhD, educational psychology, counseling psychology
Wendy A. Williams, PhD, general experimental, operant conditioning, and animal behavior

## Assistant Professors

Jennifer Cates, MA, multicultural counseling, family systems, drug and alcohol counseling
Kara I. Gabriel, PhD, general experimental, biopsychology, behavioral genetics
Ralf Greenwald, PhD , cognitive
electrophysiology of the brain, brain eventrelated potentials (ERPs)
Danielle Polage, PhD , cognitive psychology, psychology and law, learning and memory
Scott Schaefle, PhD, school counseling, child and adolescent counseling
Ryan Zayac, PhD, developmental disabilities, motivating operations, applied behavioral analysis

## Senior Lecturer

Mark Soelling, PhD, clinical psychology

## Lecturers

Holley Matthews, MEd, counseling and development, counseling psychology
Mary Radeke, MS, child language development, experimental psychology
Mary C. Schroeder, EdD, educational leadership, school counseling

## Staff

Estelle Mathews, secretary lead
Loretta Ney, secretary lead
Donna Miglino, secretary
Chris Buchanan, engineering technician III
John Street, engineering technician II

## Department Information

The psychology department offers an important behavioral science component of the university's liberal arts curriculum. As part of the General Education program, courses in psychology broaden the student's knowledge about the causes of behavior, cognition, and emotion. Through our major and minor programs, students can develop an understanding of the perspectives, content, and methods of the science and practice of psychology and prepare for graduate study.

## Admission Requirements

Students wishing to apply for admission to the psychology major or minor are required to register with the department and be advised by a member of the department faculty. The department reserves the right to change requirements as circumstances warrant. Application forms may be obtained from the department office. Only students who are fully admitted to the major or minor are eligible to enroll in PSY 301 and PSY 461.

## Exit Requirements

Students are required to have a 2.25 GPA within the major area to receive the degree.

Senior psychology majors are required to complete the department's end-of-major assessment examination in the quarter before graduating. Students should register for the examination in the department office. The
purpose of this requirement is to enable us to assess whether the department has fulfilled its instructional objectives and to provide us with information that will enable us continuously to improve our programs and courses.

## Departmental Honors

The eligibility requirements for admission to the Department of Psychology honors program include the following:

1. Admission to the program: The student must be a psychology major, at least a junior but not more than a first quarter senior, and have completed all core courses with a GPA of at least 3.25 in those courses and have an overall cumulative GPA of 3.0. The student must apply in writing to the department chair, with a supporting letter of recommendation from a member of the faculty who agrees to supervise the student's work to completion.
2. Requirements and Procedures: The student will register for 4-6 credits in PSY 497, Undergraduate Honors Thesis. In consultation with the supervising faculty member, the student chooses a threeperson faculty committee. Plans for the honors project, generally an empirical research study, must be approved by the entire committee. The project will culminate in a written research report and a formal defense of the thesis.

## Bachelor of Arts Psychology Major (60 Credits)

Students seeking a BA degree must complete one year college/ university study or two years high school study of a single foreign language.

The 60-credit major is intended to provide a foundation for professional careers and / or graduate training in psychology. It requires substantial coursework in the methodological, statistical, and content areas of psychology, while still allowing for individualized student interests and choice. Students enrolled in the 60 -credit major also have the opportunity to receive credit toward their degree for participation in professional development and research experiences.

## Required Courses for the 60 -credit major

PSY 101 - General Psychology ............. . . 5
PSY 200 - Introduction to the Major . . . . . . . . 1
PSY 300 - Research Methods in Psychology . 5
PSY 362 - Introductory Statistics .......... . 4
PSY 363 - Intermediate Statistics and
Research Methods
. . 5
PSY 489 - Senior Assessment . . . . . . . . . . . . . 1
Select at least one course from each of the following groups:
Group I . $.4-5$
PSY 301 - Learning (5)
PSY 303 - Analysis of Everyday
Behavior (4)

Group II
PSY 310 - Multicultural Issues in Psychology (4)
PSY 313 - Developmental Psychology (4)
PSY 346 - Social Psychology (4)
Group III. .4-5
PSY 453 - Theories of Personality (5)
PSY 445 - Clinical, Counseling, and Community Psychology (5)
PSY 449 - Abnormal Psychology (4)
Group IV. . . . . . . . . . . . . . . . . . . . . . .
PSY 460 - Cognitive Psychology (5)
PSY 460 - Cognitive Psychology (5)
PSY 473 - Psychology of Language (4)
PSY 467 - Child Psychopathology (3)
Group V . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY 450 - Sensation and Perception (4)
PSY 478 - Physiological Psychology (4)
Electives . 16-19
May include a maximum of five lower division credits.
In addition to the classes listed above, other 300- and 400-level psychology classes may also qualify for elective credits.

## Total Credits: 60

*Enrollment in PSY 301 and PSY 461 is restricted to students who have been accepted as majors or minors in psychology.
**Not more than 10 hours of PSY 295 and
PSY 495 combined may be applied to a psychology major.

## Bachelor of Arts

Psychology Major
(45 Credits)
The 45-credit major is intended for students who are interested in careers that would combine a background in psychology with work in fields such as socialwork, family studies, business, forensics, primate behavior, and other fields for which training in behavioral science would be useful.
Students in the 45-credit major are required to complete either a minor or a double major. This major would also be useful for students who intend to go directly into the work force following graduation. If a student decided later to pursue graduate school, the core courses in the 45 -credit major may transfer into the 60 -credit major.

## Required Courses

PSY 101 - General Psychology . . . . . . . . . . . 5
PSY 200 - Introduction to the Major . . . . . . . . 1
PSY 300 - Research Methods in Psychology . 5
PSY 362 - Introductory Statistics. . . . . . . . . . . 5
PSY 489 - Senior Assessment . 1

Select at least one course from each of the following groups:
Group I .
PSY 302 - Learning (5)
PSY 303 - Analysis of Everyday
Behavior (4)

Group II
PSY 310 - Multicultural Issues in Psychology (4)
PSY 313 - Developmental Psychology (4)
PSY 346 - Social Psychology (4)
Group III.
PSY 453 - Theories of Personality (5)
PSY 445 - Clinical, Counseling, and
Community Psychology (5)
PSY 449 - Abnormal Psychology (4)
Group IV. . . . . . . . . . . . . . . . . . . . . . . .
PSY 460 - Cognitive Psychology (5)
PSY 473 - Psychology of Language (4)
Group V . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PSY 450 - Sensation and Perception (4)
PSY 478 - Physiological Psychology (4)
Electives .5-8
May include a maximum of five lower division credits.
In addition to the classes listed above, other 300 - and 400-level psychology classes may also qualify for elective credits.

Total Credits: 45

## Psychology Minor

## Required Courses

I. Core Courses

PSY 101 - General Psychology . . . . . . . . . . . 5
*PSY 300 - Research Methods in Psychology 5
*Students who have taken the research methods course required for their major in law and justice, sociology, or social service can substitute any upper-division psychology course for PSY 300.
II. Choose two courses from the following list
**PSY 303 - Analysis of Everyday Behavior (5)
OR
**PSY 301 - Learning (5)
PSY 313 - Developmental Psychology (4)
OR
PSY 314 - Human Development and the Learner (4)
PSY 346 - Social Psychology (4)
PSY 445 - Clinical, Counseling, and Community Psychology (5)
PSY 449 - Abnormal Psychology (4)
PSY 450 - Sensation and Perception (4)
PSY 453 - Theories of Personality (5)
PSY 456 - Industrial and Organizational Psychology (4)
PSY 460 - Cognitive Psychology (5)
PSY 473 - Psychology of Language (4)
PSY 478 - Physiological Psychology (4)
III. Any upper-division psychology course can be used as an elective. May include additional courses from the list in II above.

## Psychology Courses

PSY 101. General Psychology (5). An introduction to the science of behavior.
PSY 200. Introduction to the Major (1). Orientation to the psychology major. Prerequisite: major status. Grade will be S or U.
PSY 205. Psychology of Adjustment (5).
The nature of the adaptive process and the means by which people adjust to their environment.
PSY 235. Relationships and Personal Development (3). Development of interpersonal relationships from initial encounters to stable commitments. Major focus on interaction patterns in intimate relationships. PSY 235 and FSCF 235 are equivalent courses. Students may not receive credit for both.
PSY 275. Community Development in Residence Halls (3). Components of successful student development in residential settings. Educational philosophy of residence halls, community development, and problem solving. Credits do not apply toward Psychology degree major or minor. By permission of instructor only.
PSY 295. Laboratory Experience in
Psychology (1-5). Permission of department chair required. PSY 101 recommended. May be repeated for up to 10 credits. Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45-credit psychology major and not more than 10 credits, combined, may be applied to a 60 -credit major. Grade will be S or U .
PSY 295C. CHCI Laboratory Experience (1-5). Permission of department chair is required. PSY 101 is recommended. Laboratory experience at the Chimpanzee and Human Communication Institute. Course fees will be assessed. May be repeated for up to 10 credits. Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45-credit psychology major and not more than 10 credits, combined, may be applied to a 60 -credit major. Grade will be S or U .
PSY 298. Special Topics (1-6).
PSY 299. Seminar in Psychology (3).
PSY 300. Research Methods in Psychology
(5). Addresses basic experimental and non-experimental research designs and strategies, as well as the APA-approved professional writing style. Includes both lecture and laboratory experiences. It is recommended that PSY 362 be taken concurrently.
PSY 301. Learning (5). Addresses basic theory and research related to classical and operant conditioning, stimulus control, and memory. Prerequisite: PSY 300.
PSY 303. Analysis of Everyday Behavior (4). Environmental, cognitive, and biological influences on behavior in daily life. Prerequisite: PSY 101.
PSY 310. Multicultural Psychology and Social Advocacy (4). An examination of human behavior in cultural context.

Emphasizing the role and influence of culture on thought, behavior, relationships, and society, and the influence of race, ethnicity, social class, gender, age, religion/ spirituality, and sexual orientation. Crosscultural research, theory, and methodology is also examined. PSY 101 is recommended.
PSY 312. Queer Theory and Sexuality (4). This interdisciplinary course introduces students to the academic field of lesbian and gay studies through examination of the history, politics, theories, culture, and community of those who identify as lesbian, bisexual, gay, transgender, and queer.
PSY 313. Developmental Psychology (4). Prerequisite: PSY 101. Students may not receive credit for both PSY 313 and PSY 314.
PSY 314. Human Development and the Learner (4). Development through the life cycle. Prerequisite: admission to Teacher Preparation Program or on a spaceavailable basis with permission of the chair and PSY 101. Student may not receive credit for both PSY 314 and PSY 313.
PSY 315. Educational Psychology (4). Learning theories, instructional principles, evaluation processes, and classroom management. Prerequisites: CWU's EDF 301 or 301A, PSY 313 or PSY 314, and either full admission to the Teacher Preparation Program or on a space-available basis with permission of the chair.
PSY 340. Teaching of Psychology (3). Prerequisites: completion of course in which teaching or assisting is to be done and approval of department chair. May be taken twice for credit. Grade will be $S$ or $U$.
PSY 346. Social Psychology (4). Social influences on individual behavior. Recommended Prerequisite: PSY 101.
PSY 350. Sleep and Dreaming (4). Research and theory concerning the functions and dysfunctions of sleep and dreaming. Prerequisite: PSY 101 with PSY 300 recommended.
PSY 355. Environmental Psychology (4). Behavioral responses to everyday natural and artificial environments.
PSY 362. Introductory Statistics (4). Descriptive statistics and introduction to inferential statistics through one-way analysis of variance. Prerequisite: MATH 130 or higher or acceptance to the graduate school.
PSY 363. Intermediate Statistics and Research Methods (5). Experience with the design, execution, analysis, interpretation, and communication of psychological experiments in addition to data management and statistical software skills.
Prerequisite: PSY 300 and PSY 362. Four hours lecture and two hours lab each week. PSY 396. Individual Study (1-6). Prerequisite: permission of the instructor. May not be repeated, except by honor students.
PSY 398. Special Topics (1-6).
PSY 401. Psychology of Sport (4). Current theory and research on sports psychology; application of psychological interventions in sports and fitness. Prerequisite PSY 101.

PSY 421. Human Neuroanatomy (4). An introduction to the anatomical organization and basic functional/ clinical principles of the major systems of the human brain and their relations to disease and behavior. Prerequisites: PSY 101 or BIOL 101.
PSY 438. Chemical Dependency and the Family (3). An overview of theory and research regarding chemical dependency in the family with a conceptual understanding of models and methods that shape treatment.
PSY 441. Self-injurious Behavior (4). A course covering the occurrence, prevalence, etiology, and treatment of self-injurious behavior in human and nonhuman primates, including human developmental disorders. Prerequisites: previous course in biology or psychology and junior or senior class standing.
PSY 442. Evolutionary Psychology (4). Application of principles of evolution to understanding of human and nonhuman behavior and cognition. PSY 442 and PSY 542 are equivalent courses. Students may not receive credit for both.
PSY 444. Tests and Measurements (4). Psychological and educational tests, theory, and practice. Prerequisite: PSY 315 or 362.
PSY 444 and PSY 544 are equivalent courses. Students may not receive credit for both.
PSY 445. Clinical, Counseling, and Community Psychology (5). History, current trends, fields of employment, professional ethics, methods of psychological diagnosis, and treatment. Prerequisite: PSY 101.
PSY 447. Psychology of Adolescence (4). Physiological, cognitive, and social aspects of maturation; problems of vocational choice and of increasing autonomy. Prerequisite: PSY 101.
PSY 448. Sexual Behavior (4). The scientific study of the learned and innate bases of sexual behavior in humans and lower animals. Prerequisite: PSY 101.
PSY 449. Abnormal Psychology (4). Symptoms, etiology, and treatment of psychopathology and behavior problems. Prerequisite: PSY 101.
PSY 450. Sensation and Perception (4). Research, theoretical models of sensory and perceptual processes. Prerequisites: PSY 300 and either BIOL 101, or 110, or 201, or permission of the instructor.
PSY 452. Adult Development and Aging
(4). Principles of adult psychological development and the aging process. Examination of adult behavior, life styles, crises in adult development, and cognitive, personality, and intellectual changes with aging. Prerequisite: PSY 313 or 314 recommended.
PSY 453. Theories of Personality (5). Prerequisite: PSY 101.
PSY 454. The Helping Interview (3). Theory and practice of supportive interviewing skills.

PSY 455. 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 (e.g., stress, HIV / AIDS). Prerequisite: PSY 101 and PSY 300 recommended.
PSY 456. Industrial and Organizational Psychology (4). Application of psychological principles to personnel and organizational problems in labor, industry, government, education, and the military. Prerequisite: PSY 101 or permission of instructor.
PSY 460. Cognitive Psychology (5). Methods and theories of human cognition and information processing. Prerequisite: PSY 300.

PSY 461. History and Systems of Psychology (5). Historical development and persistent theoretical problems of contemporary psychology. Prerequisite: PSY 101.
PSY 465. Psychology and the Law (4). How the discipline of psychology contributes to our understanding of matters related to the law.
PSY 467. Child Psychopathology (3). Discovery and treatment of the severely maladjusted child; the home, school, and community in relation to the child's mental health; relevant resources and research. Prerequisite: PSY 313 or 314 or permission of instructor.
PSY 472. International Counseling and Psychology (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. Prerequisite: PSY 101. PSY 472 and 572 are equivalent courses. May be repeated up to 6 credits.
PSY 473. 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. Prerequisite: PSY 101 or permission of the instructor.
PSY 476. Psychopharmacology (4). Common drugs, psychotherapeutic agents, and hallucinogens. Behavioral effects and physiological mechanisms.
PSY 478. Physiological Psychology (4). Problems, methods, and techniques of neurophysiology and the physiology of human and infrahuman behavior patterns. Prerequisite: PSY 300 and BIOL 101, or 110, or 201, or permission of instructor.
PSY 479. Comparative Psychology (4). Seminar in the study of behavior and cognition across species. Undergraduate version of PSY 576; students may not receive credit for both.

PSY 483. Psychology of Women (3). The psychology of women from a social psychological perspective, which examines gender and situation and male female interaction. Prerequisite: PSY 101 or permission of instructor.
PSY 484. Violence and Aggression (4). Violence and aggression directed toward self, others, and society. Problems of prevention and treatment, related ethical and legal issues. Prerequisite: PSY 101 with PSY 346 recommended.
PSY 489. Senior Assessment (1). An end-of-major course. Portfolio review, career planning, and program evaluation activities. Prerequisite: senior psychology majors only. Should be taken in one's last academic quarter.
PSY 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prerequisite: contact the department office. Prior approval required. May be repeated. Grade will be $S$ or U .
PSY 491. Workshop (1-6).
PSY 493. Field Research (1-12). Individual or group off-campus experience in the field study of psychological phenomena. Prerequisite: PSY 300 and PSY 362 or equivalent experience.
PSY 495. Directed Research (1-5).
Prerequisite: permission of instructor. PSY 101 recommended. May be repeated for up to 10 credits. Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45- credit Psychology major, and not more than 10 hours combined, may be applied to a 60 -credit major. Grade will be S or U .
PSY 495C. CHCI Directed Research (1-5).
Directed research at the Chimpanzee and Human Communication Institute. Prerequisite: permission of instructor. Course fee will be assessed. May be repeated for up to 10 credits. Not more than 5 credits of PSY 295, PSY 295C, PSY 495, and PSY 495C combined may be applied to a 45- credit Psychology major, and not more than 10 hours combined, may be applied to a 60 -credit major. Grade will be $S$ or $U$.
PSY 496. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated by honors students only.
PSY 497. Undergraduate Honors Thesis (2-6). Prerequisite: admission to the Departmental Honors Program. May be repeated up to a total of 6 credits. By invitation of department chair. Research supervised by three-member committee of the Department of Psychology.
PSY 498. Special Topic (1-5). Student- and faculty-initiated courses. Topics published in quarterly class schedule. Prerequisite: permission of instructor. May be repeated.
PSY 499. Seminar (1-5). May be repeated.

## SCIENCE <br> EDUCATION <br> DEPARTMENT

Ellensburg
Science Bldg., room 107
509-963-2929
Fax 509-963-1222
www.cwu.edu/~scied
See the Web site for how these programs could be used for educational and career purposes.

## Faculty

Chair
Martha J. Kurtz, PhD

## Professors

Martha J. Kurtz, PhD, chemistry and science education
Bruce Palmquist, PhD , physics and science education

## Associate Professor

Ian J. Quitadamo, PhD, biological sciences and science education

## Assistant Professors

Jennifer Dechaine, PhD , biological sciences and science education
Vanessa Hunt, PhD, science education
Beth Pratt-Sitaula, PhD, geological sciences and science education
Tim Sorey, PhD, chemistry and science education

## Program Information

The primary function of the science education department is preparing people to teach science. Coursework in science pedagogy is offered for students in the teacher preparation programs as well as for teachers in the schools. The science education department works with science departments in the design and operation of degree programs for students who are preparing to teach in the secondary schools. We believe that students learn via the active construction of knowledge. To facilitate that process, all of our instruction follows the learning cycle model.

Our program seeks to help students become facilitators of learning in a diverse world. To that end, the science education department has the following goals for an effective science teacher:

- Demonstrate an ability to individually and collaboratively engage in inquiry and integrate the nature of science
- Explain and apply fundamental science content concepts, principles, and methods
- Demonstrate an ability to effectively facilitate learning for all students
- Create safe, effective learning environments that support inquiry, collaboration, intellectual risk-taking, ethical decision-making, and student construction of knowledge
- Demonstrate an ability to assess teaching and learning outcomes using multiple methods, effectively evaluate teaching and learning effectiveness, and improve practice based on reflection and data
- Demonstrate an ability to make science personally and socially relevant to individual and community by incorporating current events within collaborative and social networks

Students seeking endorsement for certification to teach a specialized science at the high school level must satisfactorily complete the teaching major within the specific science department. Students desiring to become middle or junior high school specialized teachers of science are encouraged to obtain a teaching major in one or more of the following areas: biology, chemistry, Earth sciences, general science, or physics. All students are advised to work toward a second major or minor endorsement.

All students enrolled in science majors leading to certification are required to have an approved schedule on file with a science education advisor as early as possible and before endorsement for student teaching.

## Bachelor of Science General Science Teaching

The general science teaching major prepares students to teach science at the

high school, middle, or junior high levels. It is particularly appropriate for students who want to teach integrated science. It meets the Washington State endorsement competencies for science and one designated science of the student's choosing: biology, chemistry, earth science, or physics. Students wishing to apply for this major must demonstrate mathematical competency equivalent to MATH 153. Students must pass the WEST-E in science and their designated science emphasis area to receive endorsements in both. Students taking this major are required to complete the professional education program offered through the educational foundations and curriculum department. Students must also demonstrate competencies through a program portfolio prior to student teaching.
Science Core
IOL 181, 182, 183 - Genera - GeneraBiology I, II, III .CHEM 181, 181LAB, 182, 182LAB, 183,
183LAB - General Chemistry I, II, III . ..... 1515GEOL 101 - Physical Geology
OR
GEOL 102 - Geology of National Parks (4)GEOL 101LAB - Physical Geology
Laboratory .....  1
GEOL 350 - Teaching Northwest Geology . . 4
PHYS 101 - Introductory Astronomy I. ..... 5
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB - Introductory Physics ..... 15
OR
HYS 181, 181LAB, 182, 182LAB,
183, 183LAB - General Physics (15)
SCED 324 - Science Methods in the
Secondary Schools. ..... 5
SCED 354 - Science, Society, and the TeachingCommunity 3
SCED 401 - Interdisciplinary Science Inquiryin the Secondary Schools 5
SCED 487 - Teaching Secondary Science
Seminar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Total Core Credits: 74
Designated Science Endorsement Area (pick one)
Biology
BIOL 321 - Genetics .....  5
BIOL 360 - General Ecology. .....  5
BIOL 470 - Mechanisms of Evolution. .....  3

Total Credits: 13

## OR

## Chemistry

CHEM 361 - Organic Chemistry . . . . . . . . . . 3
CHEM 361LAB - Organic Chemistry Lab . . . 2
CHEM 362-Organic Chemistry ........... . . 3
Select one of the following: . . . . . . . . . . . . . . 5
CHEM 431, 431LAB - Biochemistry (5)
OR
CHEM 345 - Environmental Chemistry (5)
Total Credits: 13

## OR

## Earth Science

GEOL 200 - Earth Evolution and Global
Change

GEOL 320 - Rocks and Minerals . . . . . . . . . . . 5
GEOL 302 - Oceans and Atmosphere. . . . . . . 4
GEOL 380 - Environmental Geology and Natural Hazards

Total Credits: 18

## OR

## Physics

PHYS 317 - Modern Physics I . . . . . . . . . . . . . 4
PHYS 318 - Modern Physics II . . . . . . . . . . . . 4
PHYS 363 - Optics . . . . . . . . . . . . . . . . . . . . . . . . 4
MATH 172 - Calculus I. . . . . . . . . . . . . . . . . . . 5
MATH 173 - Calculus II . . . . . . . . . . . . . . . . . . . 5
Total Credits: 22
Total Credits: 87-96

## Science Education - Broad Area Science Teaching Minor

This minor is restricted to students working on a major in biology, chemistry, earth science, or physics. Science teaching majors must complete the appropriate courses in the three disciplines shown below that are outside their major. For example, a biology major would need to fulfill the chemistry, earth science and physics requirements. Students interested in this minor need to see a science education advisor as soon as possible. This program may result in students taking more than four years to complete their degree. Students completing this minor are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition, students must pass the WEST-E exam for science to receive the science endorsement.

## Required Courses

(Complete all three areas not covered in major program)

## Biology

BIOL 181 - General Biology I. . . . . . . . . . . . . . . 5
BIOL 182 - General Biology II . . . . . . . . . . . . . . 5
BIOL 183 - General Biology III . . . . . . . . . . . . 5
Subtotal Credits: 15

## Chemistry

CHEM 181, 181LAB - General Chemistry I . 5
CHEM 182, 182LAB - General Chemistry II . 5
CHEM 183, 183LAB - General Chemistry III 5
Subtotal Credits: 15
Earth Science
GEOL 101 - Physical Geology . .. . 4 OR
GEOL 102 - Geology of National Parks (4)
GEOL 101LAB - Physical Geology Laboratory
GEOL 350 - Teaching Northwest Geology . . 4
GEOL 210 - Introduction to Geologic Field
Methods (4)
OR
PHYS 101 - Introductory Astronomy I (5)
Subtotal Credits: 13-14
Physics
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB - Introductory Physics . . . . . 15
OR
PHYS 181, 181LAB, 182, 182LAB,
183, 183LAB - General Physics (15)

Subtotal Credits: 15
Total Credits: 43-45

## Middle Level Mathematics and Science Teaching Major

This major is designed for students who wish to teach mathematics and science at the middle level (grades 5-8). The coursework provides experiences in math and science content and pedagogy including field experience and addresses the Washington State competencies for middle level math teachers and the Washington State competencies for middle level science teachers. Students must be accepted into the teacher preparation program (47-52 credits) and successfully demonstrate competency equivalent to the completion of MATH 154 prior to acceptance into this major. Students with strong high school mathematics preparation should take the math placement exam. According to the results of the exam students may satisfy the MATH 153 or MATH 153 and MATH 154 requirement. Students completing this major are required to demonstrate knowledge, skill, and disposition proficiencies through a program portfolio prior to student teaching. Students who complete this major and receive a passing score on the WEST-E exams for middle level mathematics and millde-level science are eligible to receive both the middle level math and science endorsements.

## Required Courses

## Science

BIOL 101 - Fundamentals of Biology . . . . . . . 5
CHEM 101 -Contemporary Chemistry and
Contemporary Chemistry Lab .......... . . 5
PHYS 106 - Physics by Inquiry . . . . . . . . . . . 5
GEOL 101/101LAB - Physical Geology and Physical Geology Lab OR
GEOL 102/101LAB - Geology of National Parks and Physical Geology Lab (5)
PHYS 101 - Introductory Astronomy . . . . . . . 5
SCED 301 - Interdisciplinary K-8 Science Inquiry
.. 5
SCED 354 - Science, Society, and the Teaching Community

3

## Mathematics

MATH 130 - Finite Mathematics . . . . . . . . . . . 5
MATH 164 - Foundations of Arithmetic . . . . 5
MATH 250 - Intuitive Geometry for
Elementary Teachers
MATH 170 - Intuitive Calculus . . . . . . . . . . . . 5
MATH 232 - Discrete Modeling for Middle Level Teachers . 4
MATH 486 - Mathematics, Problem Solving, and Teaching

## Integrated Math and Science

MATH/SCED 323 - Teaching Middle School
Mathematics and Science. . . . . . . . . . . . . . . 3
Education
EDEL 477 - Middle School Students and Their
Environment
EDEL 478 - Developmentally Responsive
Curriculum in Middle Grades. . . . . . . . . . . 3
Advisor-approved course (EDEL 323, SCED
322, MATH 324, or SCED 324). . . . . . . . . .3-4
Total Credits: 73-74

## Science Education - Elementary Education Minor

Admission to this minor is limited to students majoring in elementary education, early childhood education or special education. This minor does not lead to endorsement as a specialized science teacher.

There are three main goals for this minor. Students who complete this minor will:

1. Develop a deeper understanding of the earth, life, and physical sciences
2. Build an appreciation for the variety of methods in different fields of science
3. Acquire skills and knowledge leading to quality teaching of a variety of science subjects

## Required Courses

Three lower-division science courses with labs (select a course from three of the following five areas: biology, chemistry, physics, Earth science, and astronomy) . . . . . . . . . . . . .13-15
SCED 301 - Interdisciplinary K-8 Science
$\qquad$
SCED 322 - Science Education in the Elementary School . . . . . . . . . . . . . . . . . . . . 4
SCED 420 - Inquiry Activities for Elementary School Science . . . . . . . . . . . . . 3
SCED 422 - Advanced Teaching Strategies in Elementary Science . . . . . . . . . . . . . . . . 3

Total Credits: 28-30

## Middle Level Science Teaching Minor

This minor is designed for students who wish to teach science at the middle level (grades 4-9). Completion of this minor results in a middle level science endorsement. The coursework provides experiences in science content and pedagogy including field experience and addresses the Washington State competencies for middle level science teachers. This minor is open only to students working on or currently holding teaching endorsements in elementary education or in secondary biology chemistry, earth science, general science, physics, or mathematics. Students working on or currently holding an endorsement in secondary mathematics must complete SCED 324 prior to finishing this minor. Students must be admitted into the Teacher Preparation Program prior
to acceptance into this minor. Students completing this minor are required to demonstrate proficiency of student learning outcomes through a program portfolio prior to student teaching. In addition, students must pass the West-E exam for middle level science to receive the middle level science endorsement.

## Required Courses

BIOL 101 - Fundamentals of Biology . . . . . . . 5
CHEM 101 - Contemporary Chemistry and Contemporary Chemistry Lab. . . . . . . 5 OR
CHEM 111 / CHEM 111LAB - Introduction
to Chemistry and Laboratory (5)
PHYS 106 - Physics by Inquiry $\qquad$ . 5
OR
PHYS 111/ 111LAB - Introductory Physics and Laboratory (5)
GEOL 101/101LAB - Physical Geology and Laboratory
OR
GEOL 102/101 LAB - Geology of National
Parks and Physical Geology Laboratory . . 5
PHYS 101 - Introductory Astronomy I (5) . .4-5 OR
PHYS 102 - Introductory Astronomy II (4)
SCED 301 - Interdisciplinary K-8 Science Inquiry

5
SCED 323 - Teaching Middle School
Mathematics and Science . . . . . . . . . . . . . . . 3
EDEL 477 - Middle School Students and Their Environment
EDEL 478 - Developmentally Responsive Curriculum in the Middle Grades . . . . . . . . 3
SCED 354 - Science, Society, and the Teaching Community

Total Credits: 42-43

## Science Education Courses

SCED 301. Interdisciplinary K-8 Science
Inquiry (5). Interdisciplinary investigation of applied life, physical, and Earth science concepts applicable to K-8 classrooms using integrated contexts. Applied inquiry processes are used to increase student knowledge, skills, and dispositions. Prerequisites: three lower-division science courses with labs (Select a course from three of the following five areas: biology, chemistry, physics, Earth science, and astronomy). Six lecture/lab hours per week.
SCED 322. Science Education in the Elementary School (4). Techniques, selection of materials, and appropriate subject matter for the various grade levels. Demonstrations and student investigative activities for use in classroom science teaching. Enrollment is subject to being fully admitted to the Teacher Preparation Program.
SCED 323. Teaching Middle School Mathematics and Science (3). Prospective teachers will learn and use the methods and materials needed to teach middle school students mathematics and science with emphasis on the use of experiments, manipulatives, problems solving,
cooperative learning, and communication of understanding. Prerequisites: MATH 324, or EDEL 323, or SCED 324, or SCED 322. SCED 323 and MATH 323 are equivalent courses. Students may not receive credit for both. Enrollment is subject to being fully admitted to the Teacher Preparation Program.
SCED 324. Science Education in Secondary Schools (4). Methods, techniques, and material appropriate for teaching science in secondary schools. Demonstration and experiments for use in teaching. Enrollment is subject to admission to the professional education program. Prerequisite: EDCS 311.
SCED 354. Science, Society, and the Teaching Community (3). Teacher candidates will learn the nature and context of science, compare science with other ways of knowing, describe the relationship between science and the community, and gain skills in integrating community resources with the classroom. Prerequisite: admission to the teacher preparation program.
SCED 398. Special Topics (1-6).
SCED 401. Interdisciplinary Secondary Science Inquiry (5). Interdisciplinary investigation of applied, physical, and Earth science concepts applicable to secondary school classrooms using integrated contexts. Applied inquiry processes are used to increase student knowledge, skills, and dispositions. Prerequisite: one laboratory course from each of biology, chemistry, geology, and physics.
SCED 420. Inquiry Activities for Elementary School Science (3). An inquiry-based course which approaches science teaching from the standpoint of the processes of science and its utilization. Prerequisite: SCED 322.
SCED 422. Advanced Teaching Strategies in Elementary Science (3). This course is designed to give students experience and training in the preparation of unique materials and teaching strategies in the area of science, as well as perfect techniques already possessed by the teacher. Prerequisite: SCED 322 or permission of instructor.
SCED 487. Teaching Secondary Science Seminar (2). Students compile knowledge, skills, and dispositions evidence and reflect on performance relative to professional standards. Students discuss current secondary science education issues, participate in program assessment, prepare for endorsement exam, and complete an electronic portfolio. Students must plan to student teach within a year of enrolling in this course.
SCED 491. Workshop (1-6).
SCED 495. Science Education Research (1-3). This course introduces pre-service science teachers to qualitative and quantitative methods of action research. Course requires completion of a research project of the student's design. Prerequisite: SCED 324 or concurrent enrollment.
SCED 496. Individual Study (1-6). Prerequisite: permission of instructor. SCED 498. Special Topics (1-6).

## SOCIOLOGY DEPARTMENT

Ellensburg
Farrell Hall, room 409
509-963-1305
Fax: 509-963-1308
www.cwu.edu / ~sociolo
See Web site for how sociology could be used for educational and career purposes.

## Faculty and Staff

Chair
Hong Xiao, PhD

## Professors

Laura L. Appleton, PhD, sex and gender, death and dying, sociology of religion
Delores Cleary, PhD, criminology, the lifecourse, American society, minorities, ethnic studies, American Indian issues
Kirk A. Johnson, PhD, criminology, delinquency, victimization, organizations, methods
Hong Xiao, PhD, social stratification, social theory, comparative sociology, social ecology, China studies

## Associate Professors

Nelson Pichardo, PhD, ethnic studies, social movements

## Assistant Professors

Eric Cheney, PhD, deviance and social control, economic sociology, organizations, statistics and urban sociology
Judith Hennessy, PhD, social welfare and poverty, gender, sociology of work, sociology of family
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

## Staff

Noella Wyatt, department secretary

## Department Information

The Department of Sociology provides opportunities for students to understand the conceptual and methodological tools used by sociologists to understand society. Students will be encouraged to: 1) see society as concrete day-to-day behavior of human beings; 2) grasp the relationship between history, society, and the individual's life; 3) realize that social patterns are tools for the accomplishment of human ends and not necessarily unalterable facts of life; and 4) develop the ability to critically analyze social phenomena.

## Exit Requirements

Students are required to have a 2.3 cumulative grade point average for all majors. Students graduating from the department are required to take the department's end-ofmajor assessment (MFAT). There is a $\$ 25$ fee to take the MFAT.

## Department Standards

Students who major in sociology and social services are required to register with the department, at which time an advisor will be selected. In order to develop a program of study, students are required to meet once a quarter with their advisor. Further information on specific courses, the faculty, and career opportunities are available in the department office. Students must complete an end-of-major assessment (MFAT) prior to graduation.

## Honors in Sociology

1. The sociology department's honors program is designed for students who wish to explore a particular research problem in depth.
2. Admission to the program

The student must:
(a) Have a 3.50 or higher cumulative GPA in sociology courses
(b) Be at least a junior
(c) Have a faculty member sponsorship; the faculty member would submit student's name to the department for admission
3. Requirements

The student is required to:
(a) Maintain a 3.5 or higher GPA in sociology coursework (including any approved outside electives) applied to the sociology degree
(b) Enroll in SOC 495 beginning fall quarter of the senior year (minimum of 10 credits over the course of that year)
(c) Enroll in SOC 499 during the first quarter of the senior year (1-5 credits);
(d) Complete a research project under the supervision of a faculty
(e) Participate in a public presentation of the research project (such as SOURCE, a professional conference, or other departmental-approved venues)
4. Those who fail to maintain a 3.5 GPA in the major, or who fail to participate in a public presentation will not receive honors.

## Sociology Core Requirements

## Required Courses

SOC 107 - Principles of Sociology . 5
SOC 350 - Social Theory I ..... 5

SOC 363 - Methods of Social Research . . . . . 5
SOC 364 - Data Analysis in Sociology . . . . . . 5
SOC 489 - Senior Seminar . . . . . . . . . . . . . . . . 1
Sociology Core Total Credits: 21

## Bachelor of Arts Sociology Major (45- or 60 -Credit Major)

(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

Students may choose either a 45-credit major or a 60 -credit major. In order to graduate, a student who completes the 45 -credit major must also have a minor or second major in another discipline.
Sociology Core $\qquad$
Select one course from each of the following categories .

Deviance, Law, and Social Control
SOC 343 - Child Abuse (5)
SOC 344 - Juvenile Delinquency (5)
SOC 345 - Deviance (5)
SOC 346 - Criminology (5)
SOC 348 - Women and Crime (4)
SOC 349 - Law and Society (4)
SOC 352 - Punishment and Corrections (5)
Inequality and Social Change
SOC 325 - Aging (5)
SOC 326 - Demography of Contemporary World Populations (5)
SOC/ETS 354 - Minority Experience (5)
SOC 356 - Sociology of Gender (5)
SOC 362 - Social Movements (5)
SOC 365 - Minority Groups (5)
SOC 366 - Sociology of American Indians (5)
SOC 370 - Social Change (5)
SOC 375 - Sociology of Conflict (5)
SOC 382 - Sociology of the Future (5)
SOC 385 - Comparative Sociology (5)
SOC 386 - Seminar on Racism (5)
SOC 415 - Urban Sociology (5)
SOC 442 - Social Welfare Policy (5)
SOC 445 - Social Inequality (5)
Social Structure and Institutions
SOC 307 - Individual and Society (5)
SOC 320 - Death and Dying (5)
SOC 327 - Sociology of Health (5)
SOC 331 - Sociology of Sport (5)
SOC 338 - Political Sociology (5)
SOC 351 - Sociology of Work (5)
SOC 357 - Sociology of Families (5)
SOC 367 - Sociology of Religion (5)
SOC 373 - Social Groups (5)
SOC 380 - Social Ecology (5)
SOC 425 - Sociology of Education (5)
SOC 459 - Organizations (5)
Total Credits from above categories: 34-36
*Approved Electives in Sociology : 9-11
**Approved Electives in Sociology : 24-26
*Total Credits: 45
**Total Credits: 60
Note: A maximum of 5 credits of 100-level electives and up to five credits of 200-level electives may be counted toward the major. PSY 363, Intermediate Statistics and Research Methods is an approved elective.

## Bachelor of Science in Social Services Major

The social service major is designed for students interested in working in the human services delivery systems. Students are required to have a strong grounding in sociology as well as the applied field of social services. The coursework introduces students to critical issues in the field and offers students the opportunity to work within agencies in the community.

The major requirements are such that students are encouraged to organize their program of study to include a minor in an area of interest or specialization outside of sociology. Some areas that fit well with this major include psychology, ethnic studies, family studies, gerontology, women's studies, community health, and the like.

## Required Courses

## Core Area

SOC 107 - Principles of Sociology . . . . . . . . . . 5
**SOC 350 - Social Theory I . . . . . . . . . . . . . . . . 5
SOC 363 - Methods of Social Research . . . . . 5
SOC 364 - Data Analysis in Sociology . . . . . . 5
SOC 489 - Senior Seminar . . . . . . . . . . . . . . . . . 1
Practice Area
SOC 301 - Introduction and History of Social Service Agencies . . . . . . . . . . . . . . 5
SOC 310 - Social Service Methods and Casework
Casework . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
***SOC 490 - Cooperative Education . . . . . 4-12
Macro Considerations in Social Services
SOC 442 - Social Welfare Policy . . . . . . . . . . . 5
SOC 445 - Social Inequality . . . . . . . . . . . . . . . . . . . . . . 5
Social Organization Area . . . . . . . . . . . . . . . . 5
Choose one course:
SOC 415 - Urban Sociology (5)
SOC 460 - Community Structure and Organization (5)
Contemporary Society Area .............. 5
Choose one course:
SOC 356 - Sociology of Gender (5)
SOC 365 - Minority Groups (5)
SOC 386 - Seminar on Racism (5)
*Approved upper-division electives in sociology....... . . . . . . . . . . . . . . . . . . . . . . 5

Total Credits: 60
*PSY 363, Intermediate Statistics and Research Methods, is an approved elective.
**SOC 107 is prerequisite for SOC 350 and 445.
***Additional credits in SOC 490 may count toward graduation.

## Sociology Minor

Required Courses<br>SOC 107 - Principles of Sociology . . . . . . . . . 5<br>* Approved Electives in Sociology . . . . . . . . 20

Total Credits: 25
*SOC 490, Cooperative Education, and SOC
496, Individual Study, do not count toward the minor. A maximum of 5 credits of elective lower-division coursework may be counted toward the minor.

## Social Services Minor

## Required Courses

SOC 301 - Introduction and History of Social Service Agencies

5
SOC 310 - Social Service Methods and Casework
SOC 442 - Social Welfare Policy . . . . . . . . . . . . 5 OR
SOC 460 - Community Structure and Organization (5)
*Electives in Sociology
Total Credits: 30
*SOC 490, Cooperative Education, and SOC 496, Individual Study, do not count toward the minor. A maximum of 5 credits of elective lower-division coursework may be counted toward the minor.

## Sociology Courses

SOC 101. Social Problems (5). An
introduction to the study of contemporary issues such as poverty, military policies, families, crime aging, racial and ethnic conflict, and the environment.
SOC 107. Principles of Sociology (5). An introduction to the basic concepts and theories of sociology with an emphasis on the group aspects of human behavior.
SOC 291. Workshop (1-6).
SOC 296. Individual Study (1-6). Prerequisite: permission of instructor.
SOC 299. Seminar (1-5). Prerequisite: permission of instructor.
SOC 301. Introduction and History of Social Service Agencies (5). Introduction to the fields of social welfare, health services and corrections, organization and function of agencies.
SOC 305. American Society (5). Introduction to the social structure and processes of American society; emphasis on institutions such as government, family, schools, and religion, and processes such as conflict, change, stratification, mobility, and communication.
SOC 307. Individual and Society (5). An analysis of the relationship between social structure and the individual.
SOC 310. Social Service Methods and Casework (5). Casework interviewing techniques and skills, traditional and contemporary methods, emphasis upon developing a personal casework style. Prerequisite: SOC 301 or permission of instructor.

SOC 320. Death and Dying (5). An analysis of social attitudes, practices, and institutions associated with death and dying in American society.
SOC 325. Aging (5). Problems and advantages of growing old in society, post-parental families, retirement, the economics of pensions, importance of interaction in old age, residential facilities, geriatric medicine, and dying.
SOC 326. Demography of Contemporary World Populations (5). Demographic analysis, fertility and the birth control movement, mortality and life expectancy, and migration. Involves use of computers.
SOC 327. Sociology of Health (5). The social causes of disease and illness behavior, organization of medical care, and comparative health systems.
SOC 331. Sociology of Sport (5). Sports and games as social phenomena.
SOC 333. Genealogy (1). Kin names, pedigrees, family trees, and ancestral histories. Research with records, family documents, and interviews.
SOC 338. Political Sociology (5). Major theories of power in society. Analysis of the political/economic structure of society as it determines the differential access to social power by different social groups.
SOC 340. Social Interaction (5). Face-toface contact, communication and social psychological features of groups.
SOC 343. Child Abuse (5). An analysis of the causes, consequences of and prospects for dealing with the phenomena of child abuse and neglect in American society.
SOC 344. Juvenile Delinquency (5). A study of social factors causing delinquency in youth, major theories, analysis of treatment and control.
SOC 345. Deviance (5). A survey of approaches to the field of deviance with emphasis on contemporary work and focus on the problematics of the field.
SOC 346. Criminology (5). A study of the adult criminal, criminal behavior, and criminality in human societies.
SOC 348. Women and Crime (4). This course will critically assess the current theoretical and empirical literature on female criminality and social control.
SOC 349. Law and Society (5). Origin, maintenance, and change of legal structures and processes in society with particular emphasis on legal institutions in American society. Prerequisite: SOC 107 or by permission of the instructor.
SOC 350. Social Theory I (5). An introduction to social theory through study of early social thinkers, emphasizing the works of Durkheim, Marx, and Weber. Prerequisite: SOC 107, and 10 upper-division SOC credits, or permission of instructor.
SOC 351. Sociology of Work (5). An historical view of the impact of technology on society and social change. Importance of work as an institution. How work relates to the other social institutions, to culture, and to the development of personality.

SOC 352. Punishment and Corrections
(5). Origin, maintenance, structure, and function of institutions of punishment and correction with particular emphasis on American society; problems of change in punishment and corrections.
SOC 354. Minority Experience (5).
Explanations will be identified for institutional racism common to the history and character of American minorities. SOC 354 and ETS 354 are equivalent courses.
Students may not receive credit for both.
SOC 356. Sociology of Gender (5). A
review and analysis of the development, maintenance, and consequences of masculine and feminine social roles.
SOC 357. Sociology of Families (5). Theory and research about familial interaction and society.
SOC 362. Social Movements (5). Causes, organizational problems, and consequences of revolutions, and political, religious, and social movements.
SOC 363. Methods of Social Research (5). Principles and applications of social research methods. Prerequisites: SOC 107 and 5 credits of upper-division (300+) SOC courses, or by permission of the instructor.
SOC 364. Data Analysis in Sociology (5).
Prerequisite: SOC 363.
SOC 365. Minority Groups (5). Study of the social formation of minority groups in American society, their historical development, current conditions, and issues.
SOC 366. Sociology of American Indians (5).
This course presents a sociological approach to Native American society. Specifically, it explores social institutions in Indian Country including political, economic, family, religious, and educational systems. Understanding the American Indian experience in relation to broader society is emphasized.
SOC 367. Sociology of Religion (5). The social organization of religious experience in small and large societies and the relationship of religious beliefs to human life.
SOC 369. Mass Media and Society (4).
Relationship of the mass media to social institutions including philosophy, responsibilities, regulations and criticism. Variable topic, may be repeated for up to 8 credits. SOC 369 and COM 369 are equivalent courses.
SOC 370. Social Change (5). Social processes, institutional development, and revolutions.
SOC 373. Social Groups (5). Principles of social behavior within and between groups.
SOC 375. Sociology of Conflict (5). Major theories of conflict in society. Applications of theories to contemporary United States. Investigation of major factors related to societal power and conflict.
SOC 380. Social Ecology (5). The structure and development of human communities as they interact with environmental conditions.

SOC 382. Sociology of the Future (5). A sociological analysis of predictions of the future. Principal questions will revolve around the effects of technology on social structure and the individual.
SOC 385. Comparative Sociology (5). Structural similarities and differences in family, religion, economics, and political institutions among societies.
SOC 386. Seminar on Racism (5). An advanced level of study examining the nature and dynamics of social forces in American society that produce the phenomena of racism. The changing forms of racism that occur historically at the intersection of class and gender oppression. Prerequisite: ETS 101 or by permission of the instructor.
SOC 398. Special Topics (1-6).
SOC 399. Seminar (1-5). May be repeated.
SOC 415. Urban Sociology (5). Growth, structure, and functions of the city, their relationships to surrounding and rural areas, urban ecological patterns, planning, and the problems of urban living. Prerequisite: SOC 107 and 10 credits of 300-plus-level sociology, or permission of the instructor.
SOC 425. Sociology of Education (5). Impact of culture on schools. Examination of contemporary social trends and relationships among church, school and government; contributions of sociology to the area of education in its broadest sense.
SOC 442. Social Welfare Policy (5). Review of U.S. social welfare policy, emphasis on 20thcentury social policies influencing nature of welfare state, and delivery of social services.
SOC 445. Social Inequality (5). The distribution of wealth, power and prestige in society. Prerequisite: SOC 107 or by permission of the instructor.
SOC 449. Contemporary Native American Cultures and Issues (4). Analysis of contemporary Native American cultures and issues, including tribal sovereignty, resource management, education, religion, economic, and health status, and cultural continuity, and adaptation. Prerequisites: ANTH 341, or ANTH 347, or SOC 366, or AIS 103, or permission of the instructor. SOC 440 and ANTH 449 are crosslisted courses. Students may not receive credit for both.
SOC 450. Social Theory II (5). Study of selected modern social theories, including structural functionalism, conflict theory, exchange theory, symbolic interactionism, ethnomethodology and the dramaturgical school. Prerequisite: SOC 350 or by permission of the instructor.
SOC 459. Organizations (5). Theory and research on the structure and development of organizations.
SOC 460. Community Structure and Organization (5). Community formation from inner city to rural hamlet. Changes in community institutions and organizational
life related to industrialization, politics, social stratification and ethnicity. Students will conduct field research on specific community functions and social structures. Prerequisite: SOC 107 and 10 credits of upper-division (300-plus level) sociology credits or by permission of the instructor.
SOC 464. Applied Data Analysis (5). Application of the principles of research methodology and statistical analysis to the collection and analysis of social data. Prerequisite: SOC 364 or equivalent.
SOC 470. Contemporary Social Thought (4). Prospects for sociology theory. Prerequisite: SOC 450 or permission of instructor.
SOC 488. Colloquy (1-3). Current literature in sociology. Prerequisite: one course in sociology issues. May be repeated up to a total of 10 credits.
SOC 489. Senior Seminar (1). A senior capstone course. Portfolio review, career planning, and program evaluation activities. Prerequisite: senior sociology and social services majors only. Taken in student's last quarter.
SOC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
SOC 491. Workshop (1-6).
SOC 492. Sociology Teaching Experience (1-5). Experience in the classroom and/ or laboratory teaching. Prerequisite: senior status Sociology majors only and 3.2 sociology GPA, and permission of the instructor. May be repeated up to a total of 10 credits.
SOC 494. Research Practicum (1-5). Supervised experience in qualitative research. Prerequisite: senior status Sociology majors only. May be repeated for a total of 10 credits
SOC 495. Sociological Research (1-15). Individual research project. Prerequisites: SOC 350, SOC 363, and SOC 364, or by permission of the instructor. This course may be repeated up to a maximum of 15 credits.
SOC 496. Individual Study (1-6). Prerequisite: 10 hours or more in sociology.
SOC 498. Special Topics (1-6).
SOC 499. Seminar (1-5).

## INTERDISCIPLINARY PROGRAMS

These programs may be affiliated with one ore more CWU departments. Many offer a major or minor program. Students should contact the program directors if they are interested in one of these programs.

# AFRICANA AND BLACK STUDIES PROGRAM 

Ellensburg
Language and Literature Bldg., room 408F

509-963-1553
www.cwu.edu / ~africana

## Program Directors

Bobby Cummings, PhD, English, Michaelsen Hall, room 133
Paulus Pimomo, PhD, English, Language and Literature Bldg., room 408F

## Program Advisor

Bobby Cummings, PhD

## Program Faculty

Professors
Delores Cleary, PhD, sociology, ethnic studies, American Indian studies
Bobby Cummings, PhD, curriculum, rhetoric and composition, African American literature
Paulus Pimomo, PhD, English
Charles Reasons, LLB, criminology, criminal justice, law
Todd Schaefer, PhD , political science

## Associate Professors

Lois Breedlove, MA, journalism
Nelson Pichardo, PhD, sociology, ethnic studies

## Assistant Professors

Teresa Francis, JD, LLM, criminal law, correctional law
Raymond Hall, PhD, folklore

## Lecturer

Karen Francis-McWhite, MA, English

## Africana and Black Studies Minor

The Africana and black studies minor program offers interdisciplinary study of the history, culture, economics, and political institutions that have shaped the experiences of people of African ancestry throughout the world. The program serves as an interdisciplinary intellectual center for study and research in the many dimensions of African and black diasporic experiences, and for application of knowledge and scholarship to advance the common good. It provides access for students and scholars to a broad range of information and research by drawing upon the insights of English, geography, history, political science, music, and other disciplines at Central. The minor is designed for all highly motivated and adventurous students in all majors who have a serious interest in learning about the black diaspora
and its impact on the individual countries and on the interdependent world in which we live.

Students in the minor are encouraged to take advantage of study abroad programs to Africa and to countries of the black diaspora. Africana and black studies minors are expected to participate actively in co-curricular multicultural learning experiences offered by the following: student organizations, Students for the Dream Living Learning Community, Diversity Education Center, Campus Life activities, Center for the Dream, University Housing and New Student Programs, Center for Student Empowerment, Latino/ a Studies Program, and the David Waine Coon Center for Excellence in Leadership.

## Required Courses

```
Select one
    ABS 110- Expressive African American
        Culture (5)
    OR
    ABS 201 - Introduction to Africana
        Studies 1400 to 1865 (5)
    OR
    ABS 202 - Introduction to Africana
        Studies }1865\mathrm{ to Present (5)
```

HIST 332 - History of the Black Diaspora . ..... 5
Africana Electives
Select three courses ..... 12-15
ABS 300 - Black Diaspora Studies (5)
ABS 302 - Hip Hop as Global Culture (5)ABS 303 - African and African AmericanFiction as History (5)

ABS 305-20th Century Black Women's Literature (4)
ABS 306 - African Women: Models of Empowerment (5)
ABS 310 - Black Diaspora: France and French Caribbean (4)
ABS 400 - Race and Literature (4)
HIST 331 - Colonial Africa (3-5)
ENG 330 - African American Literature (4)

Social Science Electives
Select one course
POSC 365 - African Politics (5)
SOC 365 - Minority Groups (5)
ETS/SOC 354 - Minority Experiences (5) LAJ 402 - African Americans and the Constitution (4)


## Special Topics

ABS 398 - Special Topics 4-6

Total: 30-36

## Africana and Black Studies

 CoursesABS 110. Expressive African American Culture (5). An interdisciplinary exploration of a variety of perspectives in African American folk culture, from oral expressions developed during slavery to contemporary Rap and stand-up comedy. The course includes an overview of the worldwide contribution of black oral performative art.
ABS 201. Introduction to Africana Studies before 1865 (5). This course is a survey of African American studies from 1400 to 1865, which traces the development of African Americans through the Middle passages into the antebellum Southern United States.
ABS 202. Introduction to Africana Studies, 1865-present (5). This course traces the development of the African Diaspora in the United States from reconstruction to the present.
ABS 300. Black Diaspora Studies (5). Examines communities developing from displacement of Africans during colonization of the New World and the impact of these communities on Latin America and the Caribbean.
ABS 302. Hip Hop as Global Culture (5). This course examines Africana and Black diasporic connections through popular culture using hip hop music. Hip hop allows us to study and understand contemporary history of Black youth in Africa, Europe, and North America.
ABS 303. African and African American Fiction as History (5). The course uses black fiction to study the history of black people using works by writers such as Chinua Achebe, Richard Wright, James Baldwin, and Toni Morrison. It also uses films and poems.
ABS 305. 20th-century Black Women's Literature (4). This seminar reads poetry, fiction, memoir, and criticism by and about black American women from 1919 to the 1990s. Prerequisite: ENG 101.
ABS 306. African Women: Models in Empowerment (5). This online course introduces students to the role of women in Africa's development. Using gender, feminist, and globalization perspectives, students will analyze women's roles in leadership, economics, education, and environmental issues in Africa.
ABS 310. Black Diaspora: France and French Caribbean (4). Examines the arts and culture of historical and contemporary communities in France and the French Caribbean that developed in relation to historical events in France and the colonization of Africa and the New World. Prerequisite: ENG 101.
ABS 398. Special Topics (1-6).

ABS 400. Race and Literature (4). Course reviews theory and use of race in the construction of knowledge and in English canonical texts.

## AMERICAN INDIAN STUDIES PROGRAM

Ellensburg
Farrell Hall, room 409
509-963-1305
www.cwu.edu / ~AIS
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Program Directors
Toni Culjak, PhD, English, Language and Literature Building, room 408A
Patrick McCutcheon, PhD, anthropology, Farrell Hall, room 337

## Professors

Tracy Andrews, PhD, anthropology
Delores Cleary, PhD, sociology
Toni Culjak, PhD, English
Steven Hackenberger, PhD, anthropology
Morris Ubelacker, PhD, geography

## Associate Professors

Kathleen Barlow, PhD, anthropology
Daniel Herman, PhD, history
Patrick Lubinski, PhD, anthropology
Patrick McCutcheon, PhD, anthropology
Michael Ogden, PhD, communication
Assistant Professor
Christopher Schedler, PhD, English

## Lecturers

Sharron Connor, PhD, philosophy and religious studies
Megan McClean, PhD, history

## American Indian Studies Minor

The American Indian studies minor program goals are to provide an interdisciplinary opportunity to learn about American Indian peoples, to facilitate research and creative activities that concern American Indian peoples, and to recognize the diversity represented in the rich heritage of American Indians. Students with a minor in American Indian studies will use academic and experiential knowledge to appreciate the natural and cultural diversity of American Indian people.

## Required Courses

AIS 101 - Pre-contact Period of American
Indians, Pre-AD 1492 .
.5
AIS 102 - Contact Period of
American Indians . . . . . . . . . . . . . . . . . . . . 5
AIS 103 - Emergence of Contemporary
American Indians .
Humanities Electives. . . . . . . . . . . . . . . . . .9-10

Select at least two of the following courses:
ENG 332 - American Indian Literature (4)
ENG 334 - American Indian Oral and Non- Fiction Literature (4)
ENG 461 - Studies in Film and Culture (5)
ETS 373 - American Indian Authors and Publications (5)
ETS 471 - Issues in American Indian Education (5)
ETS 472 - American Indian Profiles (3)
HIST 338 - Conquest and Compromises: American History since 1492 (5)
PHIL 320 - American Indian Philosophy (5)
RELS 320 - American Indian Spirituality (5)
Science Electives. . . . . . . . . . . . . . . . . . . . . . . . 8
Select at least two of the following courses:
ANTH 324 - North American Archaeology (4)
ANTH 325 - Prehistory of the Pacific Northwest (4)
ANTH 341 - Native American Cultures of the Pacific Northwest (4)
ANTH 347 - Native American Cultures of North America (4)
ANTH 349 - Contemporary Native American Cultures (4)
POSC 398 - American Indian Politics/ Sovereignty (4)
SOC 366 - Sociology of American Indians (5)
Additional course opportunities in:
AIS 296/496 - Individual Studies . . . . . . . . .1-6
AIS 490 - Cooperative Education . . . . . . .1-6
AIS 493 - Field/ Research Experience ......1-6
ART 491 - Workshop: American
Indian Art
Total Credits: 32-33

## American Indian Studies Courses

AIS 101. Pre-contact Period of American Indians, Pre-AD 1492 (5). An
interdisciplinary approach explores the life ways and environments of American Indians prior to European contact and settlement. Sources of pre-contact information consist of the archaeological, oral history, and paleoenvironmental records.
AIS 102. Contact Period of American Indians (5). An interdisciplinary study of the life ways and environments of American Indians during the period of European contact. Sources of contact period information come from the archaeological, American Indian, and European written and oral history records.
AIS 103. Emergence of Contemporary American Indians (5). An interdisciplinary approach explores the emergence of contemporary American Indians after AD 1800 with an emphasis on social, political, and cultural aspects. Sources of information
about this period come from written and oral history records.
AIS 296. Individual Study (1-6). Prerequisite: permission of the instructor.
AIS 490. Cooperative Education (1-12).
Prerequisite: prior approval required.
AIS 491. Workshop (1-6). Occasional workshops will be offered to provide a context for American Indian artists/ scholars to teach.
AIS 496. Individual Study (1-6). Prerequisite: permission of the instructor.
AIS 498. Special Topics (1-5).

## BUSINESS AND MARKETING EDUCATION

As of June 8, 2007, the Business Education teacher preparation endorsement program and the Marketing Education teacher preparation endorsement program were placed on reserve and no new declarations of major or minor are being accepted. Washington State approval for the Business Education endorsement program will naturally lapse in August 2009. Candidates currently in the program must complete the endorsement prior to August 31, 2009.

## Business Education Courses

BSED 146. Basic Accounting (5). Basic introductory course to accounting concepts. May not be taken for college credit if any other college accounting course or courses have been completed. May be audited.
BSED 316. Educational Technology (3). Students will explore a variety of concepts and resources related to the appropriate and effective integration of technology/media in school settings. Prerequisites: EDF 301, or EDF 301A, PSY 314, and full admission to the Teacher Preparation Program. CS 101 or IT 101 recommended prior to enrollment. BSED 316 and EDCS 316 are equivalent courses. Students may not receive credit for both.
BSED 389. Desktop Publishing (3). Analyzing and designing layout, typography, and graphics to produce newsletters, advertisements, brochures, and flyers. Prerequisite: IT 101 or equivalent or demonstration of computer competence.
BSED 445. Techniques of Cooperative Education (3). Philosophy, place, methods, and techniques of coordinating work experience. BSED 445 and MKED 445 are equivalent courses. Students may not receive credit for both.
BSED 492. Practicum (5-15). Prerequisite: permission of department chair. Grading will be S or U. BSED 492 and MKED 492 are equivalent courses. Students may not receive credit for both.
BSED 493A. Undergraduate Research Practicum (1-3). Conduct research under
direct supervision of a professor with specific learning agreement required. Department requirements must be met. Grade will be S/U. BSED and MKED 493A are equivalent courses. May be repeated for a total of 3 credits.

## Marketing Education Courses

MKED 350. Principles of Advertising (4). An introduction to the field of advertising and its fit into society including integrated marketing communication, consumer behavior, segmentation and target marketing, application of advertising research, creative and media strategy, copy, layout, production, budgeting, agency organization, and international and local advertising.
MKED 445. Techniques of Cooperative Education (3). Philosophy, place, methods, and techniques of coordinating work experience. MKED 445 and BSED 445 are equivalent courses. Students may not receive credit for both.

## ENERGY STUDIES PROGRAM

Ellensburg
Dean Hall, room 301
509-963-1188
Fax 509-963-1047

## Director

Holly English, MS, natural resource management, geography

Students interested in investigating energy issues are encouraged to pursue the following interdisciplinary minor which provides:

1. An introduction to the technical concepts and language relevant to energy
2. An investigation of current and projected energy use patterns and their associated environmental conflicts
3. A study of the legal, institutional, and economic factors that influence energy policy

## Energy Studies Minor

The following interdisciplinary minor provides a modest technical background so students may better understand and appreciate energy issues as they are explored from the perspective of various specialists.

With the approval of the director of energy studies, the student will select appropriate electives to meet personal and professional goals.

## Required Courses

ENST 310 - Energy and Society. . . . . . . . . . . . 5
GEOG/IET 442 - Alternative Energy
Resources and Technology.
. 5
GEOG 443 - Energy Policy $\qquad$
GEOG/ENST / BIOL/IET 490 - Cooperative Education5
Education 2
PHYS 111 - Introductory Physics ..... 4
PHYS 111LAB - Introductory PhysicsLaboratory1
Select from the following. ..... 5
IET 101 - Modern Technology and Energy (5)
ECON 101 - Economic Issues (5)
ECON 201 - Principles of Economics Micro (5)
Any one of the following:. . . . . . . . . . . . . . 3-5
CMGT 452 - LEED Sustainable Construction (4)
ECON 462 - Economics of Energy, Resources and Environment (5)
SCED 301 - Interdisciplinary Science Inquiry (5)

Total Credits: 30-32

## ENVIRONMENTAL STUDIES PROGRAM

Ellensburg
Dean Hall, room 301
509-963-1188
Fax: 509-963-1047
www.cwu.edu / ~enst
See Web site for how this program could be used for educational and career purposes.

## Director

Greg Brown, PhD

## Program Information

The Environmental Studies program at CWU was established over 30 years ago to provide an interdisciplinary approach to the study of environmental issues. The Environmental Studies program is administered through the College of the Sciences and has options for both a major (BS) and minor. The program core features teamtaught courses including General Education courses that are taught by faculty from multiple disciplines.

## Bachelor of Science <br> Environmental Studies Major

The major in environmental studies provides students with an understanding of the natural science of environmental issues as well as the social, political, and economic factors that contribute to policy and planning decisions. Through this major, students will gain the necessary professional and technical skills for entry into successful environmental careers or for graduate studies in environmental fields. The major offers seven specialization options in environmental biology, environmental chemistry,
environmental geology, environmental geography, air and water quality, environmental policy, and environmental leadership.

## Requirements for a double major with BS in Environmental Studies

The following double major combinations will have the environmental studies specialization course requirements waived for the BS degree in environmental studies;. All environmental studies foundation and core course requirements must be completed. Required courses for the first degree major may not be used to fulfill upper-division environmental studies elective requirements (7-10 credits).
Bachelors Degree (Disciplinary) Bachelors Degree (Environmental Studies)

BS Environmental Geological Sciences
BS Environmental Studies: Environmental Geology Specialization

BS Biology
BS Environmental Studies: Environmental Biology Specialization

BS Chemistry
BS Environmental Studies: Environmental Chemistry

Bachelor of Science Public Policy

The interdisciplinary major in public policy (BS) may be combined with the environmental studies specialization in environmental policy by completing the specific course requirements for both majors. Students who combine majors in public policy and environmental studies with a specialization in environmental policy will receive a bachelors of science degree in public policy and a bachelors of science degree in environmental studies. As some public policy requirements and electives count toward both degrees or majors, the actual amount of additional coursework needed to fulfill the requirements of the second degree or major may be as low as 19 credits.

Students may complete more than one specialization within the environmental studies major. To be eligible for a second specialization, a minimum of 20 unique credits must be completed. Unique means the credits have not been used as part of any other environmental studies specialization.

## Foundational Courses (Required)

BIOL 101/101LAB - Fundamentals of Biology OR BIOL 181/181LAB - General Biology I OR BIOL 200 - Plants in the Modern World . 5
CHEM 101/101LAB - Contemporary Chemistry
OR CHEM 111/111LAB - Introduction to Chemistry

OR CHEM 181/181LAB - General
Chemistry I
GEOG 101 - World Regional Geography
OR GEOG 107 - Introduction to Physical Geography
OR GEOL 101/101LAB - Physical Geology OR GEOL 102/102LAB - Geology of National Parks
OR GEOL 108 - Introduction to
Environmental Geology . . . . . . . . . . . . . . . . 5
ANTH 130 - Introduction to Cultural
Anthropology
OR GEOG 108 - Introduction to Human Geography .5

ECON 101 - Economic Issues
OR ECON 201 - Principles of Economics
Micro.
. 5
Total Foundation Credits: 25

## Core Courses (Required)

ENST 201 - Earth as an Ecosystem
OR ENST 202 - Ecosystems, Resources,
Populations, and Culture. . . . . . . . . . . . . . . 5
ENST 210 - The Global Environment from a
Local Perspective.
.4
ENST 303 - Environmental Management . . . 5
ENST 304 - Environmental Methods and
Analysis . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ENST 444 - Environmental Policy
Formulation
ENST 455 - Environmental Literature . . . . . . 3
ENST 490 - Cooperative Education
OR UNIV 309 - Civic Engagement
OR Study Abroad3-5

Upper-level electives . . . . . . . . . . . . . . . . . . 7-10

## Select two of the following courses.

These courses cannot be used to fulfill
specialization requirements:
ANTH 398/498 - Special Topics (1-6)
ANTH/GEOG 440 - Ecology and Culture (4)
BIOL 302 - Human Ecology (5)
BIOL 362 - Biomes of the Pacific
Northwest (4)
CMGT 452 - LEED in Sustainable Construction (4)
ECON 462 - Economics of Energy,
Resources and Environment (5)
ENST 310 - Energy and Society (5)
GEOG 250 - Natural Resource Conservation (4)
GEOG 303 - Introductory GIS (5)
GEOG 440 - Ecology and Culture (4)
GEOG 442 - Alternative Energy Resources and Technology (5)
GEOG 448 - Resource and Environmental Analysis (5)
GEOG 498 - Special Topics (1-6)
GEOL 302 - Oceans and Atmosphere (4)
HIST 454 - American Environmental
History (5)
PHIL 306 - Environmental Ethics (5)
Total Core Credits: 37-42

Select one of the following specializations:

## Environmental Biology <br> Specialization

*BIOL 181 and CHEM 181/181LAB are required as foundational courses for this specialization.
BIOL 182 - General Biology II . . . . . . . . . . . . . 5
BIOL 183 - General Biology III .............. . 5
BIOL 213 - Quantitative Methods in Biology4

BIOL 360 -General Ecology. . . . . . . . . . . . . . 5
CHEM 182/182LAB - General Chemistry II . .5

CHEM 183/183LAB - General Chemistry III . 5
Choose one field course from: ...........4-5
BIOL 362 - Biomes of the Pacific Northwest (4)
BIOL 377/377LAB - Regional Natural History (5)
BIOL 462 - Wildlife and Fisheries Ecology (5)

BIOL 463 - Limnology (5)
BIOL 464 - Terrestrial Plant Ecology (5)
BIOL 466 - Conservation Biology (5)
BIOL 467 - Biological Field Methods (5)
Total Specialization Credits: 33-34

## Environmental Chemistry <br> Specialization

*CHEM 181/181LAB are required as foundational courses for this specialization. CHEM 182/182LAB - General
Chemistry II $\qquad$
CHEM 183/183LAB - General Chemistry III
...... 5
CHEM 332 - Quantitative Analysis ........ 3
CHEM 345 - Environmental Chemistry. .... 5
MATH 154 - Precalculus. . . . . . . . . . . . . . . . . . 5
Choose one field course from:. . . . . . . . . . . . 5
GEOL425 - Environmental Geochemistry (5)
BIOL 220 - Introductory Cellular Biology (5)
CHEM 452 - Instrumental Analysis (5)
*Required as foundational courses for this specialization.

Total Specialization Credits: 28

## Environmental Geology Specialization

*GEOL 101 / 101LAB or GEOL 102 / 101LAB or GEOL 108 are required as foundational courses for this specialization.
GEOL 200 - Earth Evolution and Global Change
GEOL 302 - Oceans and Atmosphere. . . . . . . 4
GEOL 380 - Environmental Geology and
Natural Hazards
GEOL 386 - Geomorphology ..... 5
GEOL 445 - Hydrogeology . .....  5
MATH 154 - Precalculus Mathematics II ..... 5

Choose one field course from:. . . . . . . . . . . 4-5
GEOL 210 Introduction to Geological Field Methods (4)
GEOL 377/377LAB - Regional Natural History (5)
GEOL 410 - Snow Sciences: The Physics of Avalanches (4)

Total Specialization Credits: 32-33

## Environmental Geography Specialization

*GEOG 107 is required as foundational courses for this specialization.
Choose three of the following physical geography courses:.
GEOG 361 - Soils (5)
GEOG 382 - Hydrology (5)
GEOG 386 - Geomorphology (5)
GEOG 388 - Climatology (5)
GEOG 389 - Ecosystems Geography (5)
GEOG 453 - Wetlands Analysis (5)
Choose two of the following techniques
courses: . . . . . . . . . . . . . . . . . . . . . . . . . . .9-10
GEOG 303/403 - Introduction to GIS (5)
GEOG 409 - Quantitative Methods in Geography (5)
GEOG 410 - Airphoto Interpretation (4)
GEOG 430 - Remote Sensing (5)
Choose one of the following courses: . . . . . 4
GEOG 450 - Geography of Arid Lands (4)
GEOG 451 - Mountain Environments (4)
GEOG 452 - Coastal Environments (4)
GEOG 479 - Geography of the West (4)
Total Specialization Credits: 28-29

## Water and Air Quality <br> Specialization

*BIOL 181 and CHEM 181/181LAB are required as foundational courses for this specialization.

MATH 154 - Precalculus Mathematics II . . . . 5
CHEM 182/182LAB - General Chemistry II . 5
CHEM 183/183LAB - General Chemistry III 5
CHEM 345 - Environmental Chemistry .....  5
BIOL 220 - Introductory Cellular Biology ..... 5

BIOL 322 - Introductory Microbiology. . . . . . 5 GEOL 425 -Environmental Geochemistry . . . 5

Total Specialization Credits: 35

## Environmental Policy Specialization

ECON 201 is required as a foundation course.
ENST 460 - Environmental Law . 5
POSC 320 - Public Administration . . . . . . . . . 5
POSC 325 - Introduction to Public Policy . . . 3
POSC 429 - Research Seminar in
Public Policy.
ECON 462 - Economics of Energy, Resources,
and Environment . . . . . . . . . . . . 5
GEOG 445 - Natural Resource Policy. . . . . . . 4

Select one of the following courses:. . . . . .4-5
BUS 221 - Introductory Business Statistics (5)
MATH 311 - Statistical Concepts and Methods (5)
PSY 362 - Introductory Statistics (4)
SOC 364 - Data Analysis in Sociology (5)
Select two of the following courses:. . . . . 8-10
GEOG 303 - Introductory GIS (5)
GEOG 305 - Introduction to Land Use Planning (5)
GEOG 373 - Water Resources (4)
POSC 318 - Political Parties and Interest Groups (5)
GEOG 346 - Political Geography (4)
GEOG / ANTH 440 - Ecology and Culture (4)
GEOG 442 - Alternative Energy Resources and Technology (5)
GEOG 443 - Energy Policy (5)
GEOG 448 - Resource and Environmental Analysis (5)
GEOG 481 - Urban Geography (5)
GEOL 380 - Environmental Geology and Natural Hazards (4)
HIST 454 - American Environmental History (5)
PHIL 306 - Environmental Ethics (5)
SOC 338 - Political Sociology (5)
SOC 380 - Social Ecology (5)
Total Specialization Credits: 37-40

## Environmental Leadership Specialization

ENST 330 - Environmental Leadership and Advocacy (required).

Choose 30 credits from the following list of
courses . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30
COM 251 - Small Group Dynamics (4)
COM 255 - Emerging Leaders (2)
COM 365 - Organizational Communication (4)
FCSG 220 - Leadership in Human Development (4)
UNIV 308 - Civic Engagement Theory and Application (4)
UNIV 309 - Civic Engagement (2)
POSC 318 - Political Parties and Interest Groups (5)
POSC 320 - Public Administration (5)
MGT 386 - Principles of Organizational Behavior (5)
SOC 362 - Social Movements (5)
OR
SOC 370 - Social Change (5)
SOC 380 - Social Ecology (5)
OR
SOC 375 - Sociology of Conflict (5)
Total Specialization Credits: 35

## Environmental Studies Minor

The environmental studies minor is designed primarily to serve undergraduate education and environmental literacy.
Research and graduate education, and community education and service are other
goals. Top priority is given to providing a large number of students with the opportunity to assess the nature, scope, and complexities of present and impending environmental problems. This emphasis on establishing environmental literacy among a broad spectrum of students does not preclude the simultaneous development of a smaller number of highly selected environmental specialists. Ordinarily, development of expertise as an environmental specialist requires specialized work which can be pursued by means of undergraduate majors and graduate programs. Other objectives include the provision of public education programs on environmental issues and the stimulation of interdisciplinary research on environmental problems.

## Required Courses

ENST 201 - Earth as an Ecosystem ........ 5
ENST 202 - Ecosystems, Resources,
Population, and Culture
ENST 444 - Environmental Policy
Formulation
Approved Elective
Approved Elective . . . . . . . . . . . . . . . . . . . . 3-5
Total Credits: 22-24
Students choosing an environmental studies minor will propose an upper-division elective course in consultation with, and subject to, the pre-approval of the ENST Director. This elective course must be taken for a grade and be in a department outside the student's major. The following courses, however, will automatically be accepted without pre-approval provided they meet the other elective requirements:
ANTH/ GEOG 440, BIOL 360, ECON 462, ENST 455, GEOG 445, or HIST 454.

The minor requires that students finish with a minimum 2.0 GPA for their 22-24 program credits, and students must also earn at least a C - in each of the five courses that comprise their ENST program.

## Environmental Studies Courses

ENST 201. Earth as an Ecosystem (5).
Introduction to the concept of our planet as a finite environment with certain properties essential for life. The dynamic nature of the earth's physical, chemical, geological, and biological processes and their interrelated "systems" aspects furnishes the thrust of this treatment.
ENST 202. Ecosystems, Resources, Population, and Culture (5). The physical and cultural dimensions of environmental problems with particular emphasis given to the interaction between ecosystems, basic resources, population dynamics, and culture.
ENST 210. Global Environment from a Local Perspective (4). Students will collect, analyze, and synthesize original field data in natural and social sciences on
environmental issues relevant to global and local communities. Prerequisite: ENST 201 or 202.
ENST 298. Special Topics (1-6).
ENST 303. Environmental Management (5). Development of attitudes and perceptions of our environment. Examination of the economic, political, and legal mechanisms and philosophical perspectives useful in managing the environment. Prerequisite: ENST 201 or ENST 202 or permission of instructor.
ENST 304. Environmental Methods and Analysis (5). Introduction to qualitative and quantitative methods in the social and natural sciences with emphasis on practical application to a variety of examples in the environment. This course requires extra fees.
ENST 310. Energy and Society (5). Through classroom and field experience, students will examine society's use of and dependence upon energy. Students will become more discerning citizens, able to take part in local, national, and global energy discussions.
ENST 330. Environmental Leadership and Advocacy (5). Examines environmental groups, leadership models, and methods of environmental advocacy. Prerequisite: junior standing or permission of instructor.
ENST 398. Special Topics (1-6).
ENST 444. Environmental Policy
Formulation (4). Students will work together in interdisciplinary teams to formulate and justify policy measures they think appropriate to address an environmental problem. Prerequisite: ENST 201, 202, 303, or permission of instructor.
ENST 455. Environmental Literature (3). Survey of literary works that thematically explore human relationships with place and environment. Sampling of various themes and genres, with a focus on Pacific Northwest.
ENST 460. Environmental Law (5).
Introduction to the content of U.S. environmental law and the principal legal approaches to deal with environmental problems including common-law, statutory, regulatory, and eonomic-incentive systems. Prerequisite: junior standing or permission of the instructor.
ENST 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
ENST 491. Workshop (1-6).
ENST 495. Senior Research (3-5).
Independent student research in environmental studies project under supervision of faculty sponsor. By permission only. May be repeated for up to 12 credits.

ENST 496. Individual Study (1-6).
Prerequisite: permission of instructor.
ENST 498. Special Topics (1-6).
ENST 499. Seminar (1-5).
Related courses regularly offered in other departments include: ANTH 341 Native American Cultures of the Pacific Northwest, ANTH 347 Native American Cultures of North America, ENG 330 African American Literature, HIST 343 History of Black America since 1865, and SOC 365 Minority Groups.

## ETHNIC STUDIES PROGRAM

Ellensburg
Farrell Hall, room 442
509-963-1305
Program Director
Delores Cleary, PhD, Sociology

## Ethnic Studies Minor

Ethnic studies is a discipline that incorporates the social sciences and the humanities to explore the comparative approaches to the study of minority groups in the United States. The central mission of an ethnic studies program is to increase the understanding of racial and cultural diversity of American society and the dynamics of interethnic relationships. At the university, the ETS program is interdisciplinary, offering courses from other disciplines with a core in ethnic studies. In addition to the minor program, it provides important services to teacher preparation and general education requirements.

## Required Courses

ETS 101 - Ethnic Awareness ................ . . 5
ETS 354 - Minority Experiences
OR
SOC 365 - Minority Groups (5)
SOC 386 - Seminar on Racism
.5

Subtotal Credits: 15

Approved Electives . . . . . . . . . . . . . . . . . . 9-15
AIS 101 - Pre-contact Period of American Indians, Pre-AD 1492 (5)
AIS 102 - Contact Period of American Indians (5)
AIS 103 - Emergence of Contemporary American Indians (5)
ANTH 341 - Native American Cultures of the Pacific Northwest (4)
ANTH 342 - Hispanic Cultures of the Western U.S. (4)
ANTH 347 - Native American Cultures of North America (4)
ANTH 355 - Culture, Person, Self (4)
ANTH 356 - Gender Roles in CrossCultural Perspective (4)

COM 302 - Intercultural Communication (4)
ENG 247 - Multicultural Literature (4)
ENG 330 - African American Literature (4)
ENG 331 - Latina/o Literature (4)
ENG 332 - American Indian Literature (4)
ENG 333 - Asian American Literature (4)
ENG 334 - American Indian Oral and
Non- Fiction Literature (4)
PHIL 320 - American Indian Philosophy (5)
PHIL 357 - Race, Class, and Gender in American Philosophy (5)
RELS 320 - American Indian Spirituality (5)
SOC 305 - American Society (5)
SOC 354 - Minority Experience (5)
SOC 356 - Sociology of Gender (5)
SOC 366 - Sociology of American Indians
(5)

SOC 445 - Social Inequality (5)
TH 382 - Ethnic Drama (5)
Ethnic Studies Courses
Total Credits: 27-36

## Ethnic Studies Courses

ETS 101. Ethnic Awareness (5). Awareness and understanding of the problems facing the American people in the area of race and ethnic relations, primarily focusing on ethnic minorities. The nature and scope of relationships between minority groups and the majority in the United States.
ETS 296. Individual Study (1-6).
ETS 298. Special Topics (1-6).
ETS 299. Seminar (1-5).
ETS 311. The Asian American (3). An overview of demographics, history, cultures, and experiences of Asian Americans in the U.S. society.
ETS 354. Minority Experiences (5).
Explanations will be identified for institutional racism common to the history and character of American minorities. ETS 354 and SOC 354 are equivalent courses. Students may not receive credit for both.
ETS 398. Special Topics (1-6).
ETS 471. Issues in American Indian
Education (5). A course to give students a broad understanding of the process for educating American Indians in traditional American Indian societies and in modern society, with emphasis on the present status of American Indian education and its potential development through specialized programs.
ETS 490. Contracted Field Experience (1-12).
ETS 491. Workshop (1-6).
ETS 496. Individual Study (1-6). Prerequisite: permission of instructor.
ETS 498. Special Topics (1-6).
ETS 499. Seminar (1-5).

## HUMANITIES PROGRAM

Ellensburg
Language and Literature Bldg., room 100I
509-963-1655
www.cwu.edu / ~history
Contact Person
Roxanne I. Easley, PhD

## Humanities Courses

HUM 101. Exploring Cultures in the Ancient World (5). An interdisciplinary exploration from literature, history, philosophy, and the arts of selected major ancient civilizations in Asia, Africa, Europe, and the Americas from their beginnings through the 15th century. Prerequisite: grade of C- or above in ENG 101.

HUM 102. Exploring Cultures From 16th Through 19th Centuries (5). An interdisciplinary exploration of selected literature, history, philosophy, and the arts in Asia, Africa, Europe, and the Americas from the 16th through the 19th centuries. Prerequisite: grade of C- or above in ENG 101.

HUM 103. Exploring Cultures in Modern and Contemporary Societies (5). An interdisciplinary exploration of literature, history, philosophy, and the arts of selected world civilizations of the 20th century. Prerequisite: grade of C- or above in ENG 101.

HUM 398. Special Topics (1-6).
HUM 498. Special Topics (1-6).

## INDIVIDUAL STUDIES PROGRAM

## Ellensburg

Barge Hall, room 303
509-963-1456
www.cwu.edu / ~avpugrad/individualstudy. html
See Web site for how individual studies major could be used for educational and career purposes.

## Program Director

Tracy L. Pellett, EdD, Associate Vice-President for Undergraduate Studies

## Program Information

Students interested in pursuing an area of scholarly inquiry which falls outside the purview of an established academic department or program of the university may apply for admission to the Individual Studies program. This academic program offers students an opportunity to develop, under the guidance of faculty advisors, a major which
meets their specific needs. Major areas of study are typically interdisciplinary.

## Admission

Applicants must have completed 60 credit hours of study with a minimum 2.5 cumulative GPA and be in academic good standing for admission. All proposal materials must be submitted to the associate vice president for Undergraduate Studies at least three quarters prior to anticipated graduation, unless approved by the associate vice president for Undergraduate Studies. Proposals are subject to review and approval of an advisory committee which meets quarterly.

## List of Degrees

The active programs available include:
Bachelor of Arts
Bachelor of Science
Bachelor of Music
(NOTE: Students seeking a BA degree must complete one year college/university study or two years high school study of a single foreign language.)

## Proposal and Application

Detailed written procedures directing proposal preparation are available at www.cwu.edu/~avpugrad/individualstudy. html . The proposal must include a title, statement of purpose, a listing of courses comprising the major, and support from a faculty advisor. The course of study should include a minimum of 60 credits including at least two separate subject areas; 30 of the credits must be upper division. IS 487, End-of-Program Assessment, must be included in the course of study. No more than 15 credits may overlap with a declared minor or second major.

Students must earn a minimum grade of $C$ - in each course counted toward fulfilling major requirements and the overall GPA in the major must be a 2.5 .

## Individual Studies Courses

IS 298. Special Topics (1-6). Prerequisite: permission of the associate vice president for undergraduate studies.
IS 487. End-of-Program Assessment (1). An individual study for students enrolled in the individual studies major program. Prerequisite: senior standing and permission of associate vice president for undergraduate studies. Grade will be S or U.

IS 496. Individual Study (1-6). Prerequisite: permission of the associate vice president for undergraduate studies.
IS 498. Special Topics (1-6). Prerequisite: permission of the associate vice president for undergraduate studies.

## INTERDISCIPLINARY STUDIES

Ellensburg
Barge Hall, room 303
509-963-1456
www.cwu.edu/ ~avpugrad/
interdisciplinarystudies.html
See Web site for how interdisciplinary studies major could be used for educational and career purposes.

## Program Directors

Tracy L. Pellett, EdD, associate vice president for undergraduate studies
Stephen Schepman, PhD , director of academic coordination-university centers

## Program Information

Interdisciplinary studies-social sciences major is for students whose primary interest in the social sciences requires interdisciplinary programs and course selections which are not possible within single academic programs or established curricula. Program offers students an opportunity to devise an approved, coherent program of study with an academic advisor fulfilling academic or career goals and includes prerequisites consistent with the 300-400-level major coursework. Since the program is a student-designed, interdisciplinary major, course selections will vary. Students in the interdisciplinary studies major must take courses in at least three disciplines within the major.

## Additional Degree Requirements

Students must earn a minimum grade of C- in each course in an approved interdisciplinary studies major plan and achieve a minimum 2.25 GPA in the major. Courses in a student's minor or second major may not be included in the interdisciplinary studies major plan without advisor's consent.

## Bachelor of Science <br> Interdisciplinary Studies Social Sciences <br> (62-Credit Major)

## Required Courses

IDS 289 - Proposal Colloquium ............. . 1
IDS 489 - Senior Colloquium . . . . . . . . . . . . . 1
Sixty credits must be taken from the list of courses approved for the social science major, 45 of which must be upper division. Students in the Interdisciplinary StudiesSocial Sciences major must take courses in at least three disciplines within the major. No more than 15 credits may be numbered 398,498 , or 490. .60

## Interdisciplinary Studies Social Sciences <br> (47-Credit Major)

## Required Courses

IDS 289 - Proposal Colloquium ............ . . 1
IDS 489 - Senior Colloquium ............... 1
Forty-five credits must be taken from the list of courses approved for the social sciences major, 30 of which must be upper division. Students in the Interdisciplinary StudiesSocial Sciences major must take courses in at least three disciplines within the major. No more than 10 credits may be numbered 398,498 , or 490.

Total Credits: 47
In addition, a 47-credit major must complete either a traditional departmental minor or a second major.

Courses Approved for the Interdisciplinary
Studies - Social Sciences Major
Anthropology (all courses)
BIOL 302 and BIOL 304
Communication (all courses)
Economics (all courses)
English (all 300- and 400-level courses)
Environmental Studies (all courses)
Ethnic Studies (all courses)
Family and Consumer Sciences-approved courses only
FS 333 - Culture and Marriage
FS 335 - Divorce and Remarriage
FS 337 - Human Sexuality
FS 434 - Ethnic Diversity in Families
FS 435 - Family Gerontology
Geography (all courses)
History (all courses)
Interdisciplinary Studies - Social Sciences
IDS 490 - Cooperative Eduction
IDS 398 - Special Topics
IDS 498 - Special Topics
Law and Justice (all courses)
Management:
HRM 381 - Management of Human Resources
MGT 380 - Organizational Management
MKT 360 - Principles of Marketing
Philosophy (all courses)
Political Science (all courses)
Psychology (all courses)
Sociology (all courses)
Theatre (all courses)
Women's Studies (all courses)

## Interdisciplinary Courses

IDS 289. Proposal Colloquium (1).
Introduction to the interdisciplinary studies major, interdisciplinary studies degree proposal design and preparation. Prerequisite: permission of the instructor. Grade will be S or U.
IDS 398. Special Topics (1-6). Special topics. May be repeated. No more than 10 credits may be included in the 47-credit program. No more than 15 credits may be included in the 62 -credit program.

IDS 489. Senior Colloquium (1). End of program assessment; preparation of comprehensive degree report and/or descriptive portfolio of project. Prerequisite: permission of the instructor and IDS 289. Students must earn at least a C grade to pass this course.
IDS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated. Grade will be S or U.
IDS 498. Special Topics (1-6). Special Topics. May be repeated. No more than 10 credits may be included in the 47-credit program. No more than 15 credits may be included in the 62-credit program.

## INTERNATIONAL STUDIES AND PROGRAMS

Ellensburg
International Center, room 101

509-963-3612
Fax 509-963-1558
www.cwu.edu / ~intlprog
See Web site for how these programs could be used for educational and career purposes.

## Executive Director

Michael Launius, PhD

## Staff

Bobbie Peterson, administrative assistant Margareta (Greta) Herman, fiscal specialist Roslyn Moes, international student advisor Clarice Tan, international student recruiter Nicole Burk, program assistant (SEVIS)
Jan Powell, office assistant

## 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's or master's degree, 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 foreign languages with specializations in Chinese, French, German, Japanese, Russian, and Spanish. The foreign 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/Pacific studies and / or Latin American studies. 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.

## International Studies Minor

Program Director, Office of International Studies and Programs
Michael Launius, PhD, Political Science International Center, room 117

## Required Courses

ECON 102 - World Economics Issue . . . . . . . 5
GEOG 101 - World Regional Geography . . . . 5
POSC 270 - International Politics . . . . . . . . . . 5

International Studies Courses
INTL 110-465 - International Studies
Electives
Students must complete at least four of the following courses with no more than two from any one department.
ANTH 358 - Culture and Politics in a Global Economy (4)
COM 302 - Intercultural Communication (4)

ECON 310 - International Economics (5)
ECON 346 - Comparative Economics Systems (5)
ENG 360 - World Cinema (5)
GEOG 304 - Economic Geography (5)
GEOG 460 - Geography of International Trade (5)
HED 317 - International Health (3)
MGT 384 - Introduction to International Business (5)
POSC 373 - International Politics of the Pacific Rim (5)
POSC 375 - The Middle East and International Politics (5)
POSC 376 - International Organization (3)
POSC 378 - International Political Economy (5)
POSC 470 - Contemporary Issues in International Relations (3)
RELS 201 - Sacred Books of the World (5)

SOC 326 - Demography of Contemporary
World Populations (5)
WS 498 - Special Topics (1-6)
INTL 198-498 - Special Topics (1-6)
INTL 290/490 - Cooperative Education
(1-6)
Total Credits: 36

## STUDY ABROAD AND EXCHANGE PROGRAMS (SAEP)

Ellensburg<br>International Center, room 101

## 509-963-3612

www.cwu.edu / ~studyabroad
See Web site for how this program could be
used for educational and career purposes.
Program Director
Larry Laffrey, MA

## Staff

Ray Bates, study abroad advisor
Roberta Lowe. secretary senior
Rebecca Garate, study abroad avisor
Rebecca Lowell, temporary study abroad advisor

## Program Information

Study Abroad and Exchange Programs offers more than 150 international programs in 50 countries and over 170 exchange locations within the U.S. International internships are also available. Programs range in length from 10 days to one year. Programs grant academic credit that can be applied to major, minor, or breadth requirements with departmental approval. Foreign language proficiency is not required and many programs offer coursework in English.

## Department Standards

Minimum GPA 2.5 or higher; 2.0 for international internships.

Minimum sophomore standing for most programs; freshman standing for some faculty-led programs.

Must be in good academic and disciplinary standing.

Program-specific eligibility criteria are available on the SAEP Web site at www.cwu.edu/~studyabroad/.

## Financial Obligations

Exempt from CWU tuition. Programspecific fees apply. For more information, see the SAEP Web site at www.cwu.edu/~studyabroad/.

Most types of financial aid apply toward program costs. Aid may be increased if necessary depending on student aid eligibility.

## UNIVERSITY <br> ENGLISH AS A <br> SECOND LANGUAGE PROGRAM (UESL)

## Ellensburg

International Center, room 101

## 509-963-1375

www.cwu.edu / ~esl/
See Web site for how this program could be used for educational and career purposes.

## Program Director

Steve Horowitz, MA

## Senior Lecturers

Randi Freeman, MA, TESL
Meiqi He, MA, TESL
Carl Rosser, PhD, English
Jenee Cazares, MA, second language teaching and learning for adults

## Lecturers

Suzanne Johnson, MA, TESL
Robert (Bob) Woods, MA, applied lingustics (TESOL)
Sarah Norton, MA, TESL

## Staff

Patricia (Pat) Rice, senior secretary
Margaret Jenson, office assistant

## Program Information

The UESL Program consists of a yearround intensive English program and shortterm special programs. The year-round program focuses on language instruction and academic preparation for international students. Conditional undergraduate admission to CWU is an option through the UESL program. The program provides practical training for English department graduate students and an opportunity for American students to be conversation partners. Short-term special programs can be arranged for specific groups.


## ASIA UNIVERSITY AMERICA PROGRAM (AUAP)

Ellensburg
International Center, room 101

## 509-963-1373

www.cwu.edu / ~auap/
See Web site for how this program could be used for educational and career purposes.

## Program Director

Nicki Kukar, MEd
Lecturers
Andrew Cottonwood MA, American and Japanese history
John Katunich, MA, TESL, curriculum coordinator
Patrick Parr, MA, creative writing
Mary Jo Pichette, MEd, TESL
Jamey Pitts, MA, TESL
Rose Romfo, MA, English literature Sylvia Shriner, MA, TESL

## Staff

Nicole Neufeld, student services assistant Angela (Angie) Wedekind, secretary senior Mark Werdin, MA, English literature, student services coordinator

## Program Information

The Asia University America Program (AUAP) is a study abroad program for freshman and sophomore students from Asia University in Tokyo, Japan. Two groups of students come to CWU each year for five months. The program is presently ongoing at two other universities in the northwest: WWU and EWU. AUAP provides students from Asia University the opportunity to improve their English skills and experience university life in the U.S. Students attend 18 hours of AUAP classes per week following the required curriculum from Asia University.

## International Study Courses

INTL courses are offered only in university-approved study abroad / exchange programs. Courses may be offered under different titles. They may be repeated for credit under different titles.

INTL 110, 210, 310, 410. Agriculture (1-12)
INTL 115, 215, 315, 415. Business or
Management (1-12)
INTL 120, 220, 320, 420. Education (1-12)
INTL 125, 225, 325, 425. Engineering (1-12)
INTL 130, 230, 330, 430. Fine or Applied Arts (1-12)
INTL 135, 235, 335, 435. Foreign Languages (1-12)
INTL 140, 240, 340, 440. Health Sciences (112)

INTL 145, 245, 345, 445. Humanities (1-12)
INTL 150, 250, 350, 450. Law (1-12)
INTL 155, 255, 355, 455. Math or Computer Sciences (1-12)
INTL 160, 260, 360, 460. Physical or Life Sciences (1-12)
INTL 165, 265, 365, 465. Social Sciences (1-12)
INTL 198, 298, 398, 498. Special Topics (1-6)
INTL 290. Cooperative Education (1-5) Internship credit offered only in university approved study abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different titles.
INTL 421. Student Teaching Abroad (16) Course is available for overseas student teaching placements through an approved CWU program. Course may substitute for CWU student teaching requirement with prior permission of director of field experiences only. Prerequisites, eligible for EDCS 442 Student Teaching, permission of director, field experiences. Must be enrolled in approved CWU teaching abroad program.
INTL 490. Cooperative Education (1-12) Internship credit offered only in university approved study abroad/exchange programs. Courses may be offered under different titles. May be repeated for credit under different titles.

## LATINO AND LATIN AMERICAN STUDIES PROGRAM

Ellensburg
Language and Literature Bldg., room 100M
509-963-1244
Fax 509-963-1654
www.cwu.edu / ~la_studies
See Web site for how this program could be used for educational and career purposes.

## Program Co-Directors

Stella Moreno, PhD, foreign languages
Chris Schedler, PhD, English
Program Faculty
Tracy Andrews, PhD, anthropology Loran Cutsinger, PhD, anthropology Gilberto Garcia, PhD, political science Jennifer Lipton, MA, geography Eric Mayer, PhD, foreign languages Stella Moreno, PhD , foreign languages Nelson Pichardo, PhD, sociology Chris Schedler, PhD, English

## Program Information

The Latino and Latin American Studies (LLAS) program seeks to engage CWU students, faculty, staff, and local communities in a study of Latino and Latin American experiences, peoples, and cultures. Most importantly, the LLAS minor provides students with broad, interdisciplinary training
in the economic, social, political, and cultural realities of Latino and Latin American peoples. The minor will be useful to those with career interests in business, government, social work, and teaching, and those who wish to travel in Latin America. Moreover, the Latino and Latin American Studies minor may also serve as preparation for graduate study in multiple academic or professional fields.

## Latino and Latin American Studies Minor

Requirements for minors in Latino and Latin American Studies

1. Prerequisite, Spanish, Portuguese, or French language equivalent to the end of the first year (153).
2. Required Course (5 credits)

LLAS 102, An Introduction to Latino and Latin American Studies
3. Required Elective Credits ( 20 credits) A total of 20 approved electives in at least three different disciplines at the 300 level or above is required (see "List of Approved CWU Courses" below). Courses taken through CWU exchange or study abroad programs in a Latin American university may be applied for minor program credit. Courses that do not appear on the approved list but contain significant Latino and Latin American content may be used for minor program credit, upon approval of the LLAS director(s).
4. Average GPA

A 2.0 average GPA in all program courses is required.

## List of Approved CWU Courses (By

Department/Program)
(a) Anthropology

ANTH 342 - Hispanic Cultures of the Western U.S. (4)
ANTH 346 - Cultures of Latin America and the Caribbean (4)
(b) English

ENG 331 - Latina / o Literature (4)
(c) Ethnic Studies

ETS 350 - Survey of Chicano Studies (4)
ETS 351 - Contemporary Chicano
Issues (5)
ETS 352 - Chicano Social and
Psychological Perspectives (4)
(d) Foreign Languages

SPAN 301 - Introduction to Spanish and
Latin American Literature (4)
SPAN 310 - Hispanic Civilizations and Cultures (4)
SPAN 444 - Chicano/Latino
Literature (4)
SPAN 446 - Hispanic Cinema (4)
SPAN 456 - The Spanish and Latin Short Story (4)
SPAN 457 - Latin American Theater (4)

SPAN 458 - Latin American Fiction (4)
SPAN 459 - Latin American Poetry (4)
SPAN 467 - Spanish and Latin
American Literature and Film (4)
SPAN 471 - Spanish/English Bilingual Cultures in the U.S. (4)
(e) Geography

GEOG 470 - Geography of Latin America (4)
GEOG 471 - Geography of Middle America (3)
(f) History

HIST 328 - Modern Latin America (5)
HIST 386 - The Latin American Colonies (5)
HIST 464 - Latin American
Revolutions (5)
HIST 488 - Mexico in the Modern Era (5)
(g) Latino and Latin American Studies

LLAS 398 - Special Topics (1-6)
LLAS 399 - Multi-disciplinary Seminar on Latino and Latin America (5)
LLAS 496 - Individual Study (1-6)
(h) Political Science

POSC 361 - Latin American Politics (5)

## Latino and Latin American Studies Courses

LLAS 102. An Introduction to Latino and Latin American Studies (5). A multidisciplinary introduction of Latino and Latin American Studies, presented in three main components: "People and the Land," "The Environment and the Human Condition," and "Socio-Political Spectrum".
LLAS 398. Special Topics (1-6).
LLAS 399. Multi-disciplinary Seminar on Latino and Latin America (5).
LLAS 496. Individual Study (1-6).

## LIBRARY SCIENCE

Ellensburg
James E. Brooks Library, room 206
509-963-1021
Fax 509-963-3684
www.lib.cwu.edu
See Web site for how the library could be
used for educational and career purposes.

## Faculty and Administration

Interim Dean
Philip Tolin, PhD

## Professors

Daniel G. CannCasciato, MLS, Head of cataloging department
John K. Creech, MLS, Head of systems department
Gerard P. Hogan, MLibr, Coordinator of reference services
Janice (Jan) L. Jorgensen, MLS, Head of government publications department
Mary J. Wise, MLS, cataloging

## Associate Professor

Patrick A. Owens, MLS, Head of colletion development

## Assistant Professors

Marcus E. Kieltyka, MLS, instruction/ outreach

## Lecturers

Christopher Gwyn, MS, reference services Mari Knirck, MA, Lead of serials and electronic resources department
Christopher Mayer, MA, reference services

## Program Information

Students at Central have 24/7/365 access to information about Brooks Library's

holdings of over 1.3 million books, films, government documents, and maps in print, microfiche, microfilm, and online electronic formats. The library maintains subscriptions to over 20,000 newspapers, magazines, and journals in print and online full-text electronic formats, as well as audio recordings in CD, LP, and cassette formats and videos in DVD and VHS formats. The Brooks Library participates in the resource sharing service that provides our students with access to more than 25 million information items in the academic libraries of the northwest all of whom belong to the Orbis Cascade Alliance. Most full-text access is available to our students from any networked computer whether on or off campus.

## Library Science Course

LIB 345. Library Research Methods and Information Literacy (4). Development of information literacy skills and theory through a discussion of internal and external information sources. Knowledge of the organization of print and non-print resources. Creation of bibliographies, reports, and other academic materials. Open to all students.

## MCNAIR SCHOLARS <br> PROGRAM

Ellensburg

Farrell Hall, room 136
509-963-2869
www.cwu.edu / ~mcnair

## Program Director

Karen Francis-McWhite, MA

## Faculty Coordinator

Timothy Englund, PhD

## Staff

Delayna Breckon, office assistant

## Program Information

The Ronald E. McNair Scholars Program at CWU is funded by a grant from the Department of Education under TRIO Programs. This is an academically rigorous program, not a scholarship. The program is designed to provide underrepresented (lowincome and first-generation, and / or ethnic minority) students with the training and opportunity to prepare for and successfully apply to graduate school programs. To this end, admitted scholars are required to complete graduate school preparation seminars. The goal of the program is for scholars to attain their doctorates and teach at universities.

A cornerstone of this program is the linking of scholars with faculty mentors. Students are expected to complete a summer research fellowship under the supervision of a research mentor. Students are expected to complete a summer research internship under the supervision of a research mentor. Scholars also have the option of a teaching internship during one academic quarter and / or pursuing a leadership development track during their second year as a McNair Scholar.

CWU students are encouraged to apply to the McNair Scholars Program as sophomores or juniors and are selected on the basis of their academic excellence, career objectives and faculty recommendations.

## Admission Requirements

(1) Meet the following eligibility requirements:

- Must be a U.S. citizen or permanent resident;
- Must be a low-income student who is also a first-generation college student; or must be a member of a group that is underrepresented in graduate education (African American, American Indian/ Alaskan Native, Hispanic/Latino, or Native Hawaiian/Pacific Islander);
- Must be currently enrolled as an undergraduate in a degree program at CWU
- Must have completed 90 quarter credits by the time you begin the McNair Scholars Program
- Must have at least one year remaining before graduation
- Must have a minimum cumulative GPA of 2.9; and a major GPA of at least 3.1, for the McNair Scholars Program
- Must express a desire to attain a PhD
(2) Complete an application, complete with form, two letters of recommendation and a personal statement. Application materials and deadlines are available on the program website.


## McNair Scholars Courses

MCNA 299.1. McNair Scholars Seminar (1). A seminar series taking McNair scholars through all steps needed to build a portfolio for the graduate school application process. Perquisites, student must be accepted into the McNair Scholars Program. Grade will be $S$ or U.
MCNA 395. Undergraduate Research Methods (2). An introduction to research methods in preparation for an undergraduate summer research internship. Prerequisite: student must be accepted into the McNair Scholars Program. Grade will be $S$ or $U$.

## OCCUPATIONAL EDUCATION

Ellensburg
Michaelsen Hall, room 100
509-963-2766
www.cwuce.org/ careertech
See Web site for how this certificate could be used for educational and career purposes.

Faculty and Staff
Director
Jan Bowers, PhD, family and consumer sciences

## Faculty

Robert Perkins, EdD, business and marketing education
Scott Calahan, MEd, industrial education
Marla Wyatt, PhD, family and consumer sciences education

## Non-tenure Faculty

Jay Leviton
John Linder
Kevin Plambeck
Paul Randall

## Regional Coordinators

Jay Leviton
John Linder
Kevin Plambeck
Paul Randall

## Career and Technical Education Teacher Preparation Certificate

This two-year competency block certificate program is intended for business or industry professionals who are interested in obtaining a career and technical teaching certificate. The program will provide the tools necessary for success in the classroom.

During the program participants will complete a mentored teaching experience or practicum each year. The program is offered through the office of Continuing Education in collaboration with Occupational Education.

## Prerequisites:

1. Current Career and Technical Education Probationary Teaching Certificate OR
2. 6,000 hours paid occupational experience in the area you wish to teach, and fingerprint clearance from both the Washington State Patrol and the FBI must be on file at the office of Superintendent of Public Instruction (OSPI).
3. Successful completion of all three sections in the Washington Educator Skills Test - Basic (West-B). Test scores must be submitted prior to completing the program in order to receive CWU's
recommendation for career and technical education teacher certification
OR
4. Washington State Residency Permit or professional teacher certification.
Included in each year of the program is a 70 -hour practicum. Passing grades in all courses grants the individual the competencies in general and specific safety requirement.

## Required Courses

## Block 1:

OCED 310A - Vocational-technical
Teaching Methods ............ .
OCED 310B - Vocational-technical
Occupational Analysis . . . . . . . . . . . . . . . . .
OCED 310C - Vocational-technical Course
Organization and Curriculum Design ... 5

## Block 2:

OCED 311A - Vocational-technical
Coordination Techniques of
Cooperative Education
OCED 311B - Vocational-technical History and
Philosophy of Vocational Education . . . . 3
OCED 311C - Vocational-technical
Student and Professional Leadership
Development
OCED 311D - Vocational-technical School Law and Issues related to Abuse

Total Credits: 24

## Occupational Education Courses

OCED 310A. Vocational-Technical Teaching Methods (3-5). An introduction to teaching pedagogy and application of occupational skills, knowledge and practice to a vocational classroom setting.
OCED 310B. Vocational-Technical Occupational Analysis (3-5). An introduction to teaching pedagogy and application of occupational skills, knowledge and practice to a vocational classroom setting.
OCED 310C. Vocational-Technical Course Organization and Curriculum Design (35). An introduction to teaching pedagogy and application of occupational skills, knowledge and practice to a vocational classroom setting.
OCED 311A. Vocational-Technical Coordination Techniques of Cooperative Education (3-5). Advanced teaching pedagogy, history and philosophy of vocational education, school law and issues related to abuse, leadership, and workbased learning.
OCED 311B. Vocational-Technical History and Philosophy of Vocational Education (3-5). Advanced teaching pedagogy, history and philosophy of vocational education, school law and issues related to abuse, leadership, and work-based learning.
OCED 311C. Vocational-Technical Student and Professional Leadership Development (3-5). Advanced teaching pedagogy, history
and philosophy of vocational education, school law and issues related to abuse, leadership, and work-based learning.
OCED 311D. Vocational-Technical School Law and Issues related to Abuse (3-5). Advanced teaching pedagogy, history, and philosophy of vocational education, school law, and issues related to abuse, leadership, and work-based learning.
OCED 410. Career and Technical Education School to Work Programs (4). Work-based learning, student leadership, advisory committees, program promotion, and professional responsibilities in vocational education. Prerequisite: admission to the Teacher Preparation Program.
OCED 432. Occupational Analysis (3). Analysis of jobs and trades to determine related technical information, skills, and advisory sources necessary to develop content materials for a course of study.
OCED 440. Total Quality Learning (3). Concepts of continuous improvement cycles, statistical process control tools, assessment strategies, and tools. Application strategies and learning and behavior concepts of Glasser, Maslow, Herzberg, and Bloom.

## PRIMATE BEHAVIOR AND ECOLOGY PROGRAM

Ellensburg
Dean Hall, room 357A
509-963-3201
Fax: 509-963-3215
www.cwu.edu / ~primate
See Web site for how this program could be used for educational and career purposes.

## Program Director

Lori K. Sheeran, PhD, anthropology, Dean Hall, room 335

## Professors

Daniel Beck, PhD, biology, habitat selection, physiological ecology, foraging behavior, rattlesnake ecology, biology of helodermatid lizards
Roger Fouts, PhD, psychology, comparative and general experimental psychology, language acquisition, primate behavior Lixing Sun, PhD, Biology, ecology and evolution of animal behavior (especially communication systems), chemical ecology

## Associate Professors

Megan D. Matheson, PhD, psychology, general experimental and comparative psychology, nonhuman primate social behavior, stress and coping, post-conflict behavior
Lori K. Sheeran, PhD, anthropology, primate behavior, primate conservation,
gibbon behavior and ecology, biological anthropology
Steve Wagner, PhD, biology, conservation population genetics, herpetology, molecular evolution

## Assistant Professors

Mary Lee Jensvold, PhD, anthropology, chimpanzee sign language studies, ape behavior, communication and culture, chimpanzee care and enrichment, nonverbal behavior
Joseph G. Lorenz, PhD, anthropology, intraspecific genetic variation, molecular phylogenetics, ancient DNA, genotypephenotype associations, evolutionary anthropology

## Chimpanzee and Human Communication Institute (CHCI)

Deborah Fouts, MS, Director, CHCI Bldg., room 111
Mary Lee Jensvold, PhD, Associate Director, CHCI Bldg., room 118

## Staff

Penelope Anderson, senior secretary, Anthropology
Lynn Whitacre, program coordinator, CHCI

## Program Information

This program provides majors with interdisciplinary perspectives on the behavior and ecology of nonhuman primates in both captive and free-living settings. It serves as background for graduate study in the behavior, ecology, or phylogeny of primates, as well as for care-giving careers with primates living in laboratories, zoos, or other captive facilities. Lab fees required for PRIM 220, PRIM 320, and ANTH 416.

A double major is REQUIRED with the PBE degree. Students must complete the requirements for the PBE major as well as the requirements for a 45-plus-credit major in anthropology, biology, or psychology. Students interested in the major should contact the program office as soon as possible for further information, application forms, and assignment of an advisor. PBE majors are expected to meet with their advisor at least once a quarter.

## Special Programs

The program sponsors and is affiliated with a wide range of on- and off-campus activities that provide students with opportunities to conduct faculty-mentored scientific projects or internships.

The PBE reading room in room 204 Dean Hall houses several hundred books, articles, and DVDs/videotapes related to primatology. The room includes a TV, DVD player, VHS player, and four computer work stations.

The PBE program has available for student use one video camera, two digital cameras, two DVD players, one television, observational software (The Observer), and two PDAs for using this software at remote
locations. The Observer software can also be used on two desktop computers.

Students and faculty who have been approved to conduct research at CHCI may have access to resources housed there. These include an extensive library of articles, books, videos, and DVDs, and more than 20 years of archived video footage collected from the chimpanzees living there. CHCI also houses several VCRs, TVs, DVD players, video cameras, and computers that students can use in research projects conducted at CHCI. Access is considered on a case-by-case basis in consultation with the director and associate director of CHCI.

The Anthropological Genetics Laboratory in room 232A Dean Hall is equipped for performing DNA extractions, PCR (Polymerase Chain Reaction) amplification, genotyping, and DNA sequencing. Software for analyzing genetic data and performing phylogenetic analysis is also available.

The anthropology department owns casts of fossil and living nonhuman primates. These span a variety of taxa including prosimians, monkeys, and apes. Access is considered on a case-by-case basis in consultation with the anthropology faculty.

The PBE program is affiliated with the Conservation and Biodiversity Field School in China, which is coordinated through the CWU Office of International Study and Programs.

Students can develop faculty-mentored internship experiences based at CHCI , the Woodland Park Zoo, and other sites.

## Bachelor of Science Primate Behavior and Ecology Major

## Required Courses

## Introductory Level

ANTH 110 - Introduction to
Biological Anthropology .
*BIOL 181 - General Biology I .........
OR BIOL 101 - Fundamentals of Biology(5)
*BIOL 182 - General Biology II . . . . . . . . . . . . 5 OR BIOL 200 - Plants In the Modern World (5)
BIOL 183-General Biology III . . . . . . . . . . . . 5
OR BIOL 201 - Human Physiology (5)
PSY 101 - General Psychology. . . . . . . . . . . . . 5

## Core Requirements

ANTH 309L - Skeletal Analysis and Comparison. 2
ANTH 313 - Primate Social Behavior .....  4
*BIOL 213 - Quantitative Methods in Biology 4OR PSY 362 - Introductory Statistics (4)
*BIOL 302 - Human Ecology
OR BIOL 360 - General Ecology (5)
*BIOL 465 - Biology of Animal Behavior (4)
OR PSY 301 - Learning (5)
PRIM 220 - Introduction to Primate Laboratory Procedures . 2

PRIM 450 - Primate Behavior and Ecology
Capstone. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
PSY 300 - Research Methods in Psychology . 5
Select one from the following . . . . . . . . . . . 3-5
ANTH 493 - Anthropological Field
Experience (1-8)
BIOL 493 - Biological Field Practicum (1-15)
PRIM 320 - Laboratory Research in Primatology (3)
PRIM 490 - Cooperative Education (3)
PRIM 495A - Directed Research in Primatology (1-5)
PRIM 495C - CHCI Directed Research (3)
PSY 493 - Field Research (3)
OR other research
ANTH/BIOL / PSY 499 - Seminar (2-4) . . . . . 4 OR
PSY 442 - Evolutionary Psychology (4)
Select two from the following . . . . . . . . . . . . . 8
ANTH 412 - Long-term Primate Studies (4)
ANTH 416 - Pongid Behavior (4)
ANTH 418 - Primate Evolution (4)
Electives by Advisement . . . . . . . . . . . . . . . . 4
Total Credits: 71-74

* Course selection by advisement depending upon second major.


## Primate Studies Courses

PRIM 220. Introduction to Primate
Laboratory Procedures (2). Laboratory procedures to ensure physical, social, and psychological well-being of captive nonhuman primates: sanitation, safety, medical care, diet, USDA requirements, and socio-psychological factors. Requires one hour meeting and four hours of lab per week plus an organizational meeting and up to eight hours of weekend lab over the quarter.
PRIM 320. Laboratory Research in
Primatology (1-3). Laboratory research under the supervision of a program professor. Prerequisite PRIM 220. May be repeated up to a maximum of 6 credits; may be taken concurrently with and as a supplement to other 300-400-level ANTH/ BIOL / PSY / PRIM courses. Graded S or U.
PRIM 450. Primate Behavior and Ecology Capstone (1). A capstone course designed to assess students' mastery of fundamental knowledge of primatology through submission of a portfolio of work collected throughout the program. Includes exit interview with program director. Prerequisite: senior standing.
PRIM 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer, and faculty coordination. Prerequisite: approval of instructor required. Course will be graded S or U.

## PRIM 495A. Directed Research in

Primatology (1-5). Prerequisite: permission of the instructor. Grade will be $S$ or U .
PRIM 495C. CHCI Directed Research (1-10).
Directed primatological research at the Chimpanzee and Human Communication Institute. Prerequisites: PRIM 220 and permission of the instructor. Grade will be S or U.

## PUBLIC POLICY PROGRAM

Ellensburg
Psychology Bldg., room 482
Phone: 509-963-2353
FAX: 509-963-1134

## Director

Rex Wirth, PhD

## Bachelor of Science Public Policy Major

Public policy is not a free-standing major. It is normally taken in conjunction with a major in economics (general economics or managerial economics options), geography or political science. Students who combine majors in public policy and either geography or political science will receive a bachelor of science degree in public policy and a bachelor of arts degree in geography or political science. As some public policy requirements and electives count toward both degrees or majors, the actual amount of additional coursework needed to fulfill the requirements of the second degree or major may be as low as 17 credits.

## Public Policy Core

ECON 201 - Principles of Economics Micro . 5
ECON 202 - Principles of Economics Macro 5
ECON 332 - Public Finance . . . . . . . . . . . . . . . 5
GEOG 303 - Introductory GIS .............. . . 5
GEOG 346 - Political Geography . . . . . . . . . . 4
POSC 320 - Public Administration . . . . . . . . 5
POSC 325 - Introduction to Public Policy ... 3
POSC 429 - Research Seminar in Public
Policy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Subtotal Credits: 35
Research Tool Elective . . . . . . . . . . . . . . . . 4-5
BUS 221 - Introductory Business Statistics (5)
MATH 311 - Statistical Concepts and Methods (5)
PSY 362 - Introductory Statistics (4)
SOC 364 - Data Analysis in Sociology (5)
Department-approved Electives in Economics, Geography, or Political
Science.

## SCIENCE HONORS RESEARCH

## Ellensburg

Lind Hall, room 118A

## 509-963-2718

www.cwu.edu / ~cots / scihonors
See the Web site for how this program could be used for educational and career purposes.

## Program Director

Audrey Huerta, PhD
huerta@geology.cwu.edu

## Program Information

The two-year Science Honors Research program is centered on a faculty-mentored student research project that culminates in an honors thesis. Applications to the program consist of a research proposal developed under the guidance of a faculty mentor. All proposals are reviewed by a faculty committee. Application deadline is in winter quarter.

Students are normally admitted to the program during their junior year and are employed for nine weeks during the summer, when they are expected to perform the bulk of their research activities. Required coursework consists of SHP 301 (2 credits), SHP 401 (2 credits), and SHP 497 (1 credit). Research continues during the senior year, concluding with a written honors thesis and an oral presentation at the CWU Symposium on University Research and Creative Expression (SOURCE).

## Admission Requirements

Admission to the program is competitive, based on the quality of the research proposal submitted by the applicant and faculty mentor. Approximately ten students are admitted each year. Application forms, criteria, and deadline are posted on the Science Honors Web site, www.cwu. edu / ~cots/scihonors.

## Exit Requirements

Satisfactory completion of SHP 497, which requires the submission of an honors thesis that is approved by faculty mentor and program director, is required for participation in honors convocation and to receive an honors designation on the transcript.

## Required Extracurricular Activity

Students are expected to work full time on their proposed research project for nine weeks during the summer and to participate in group activities and weekly meetings. Students should not be working more than 15 hours per week at another job, nor be enrolled in other classes during the summer. Exceptions may be made for certain required summer courses, such as GEOL 489.

## Science Honors Courses

SHP 301. Science Honors Junior Seminar: Elements of Scientific Research (2). The process of science from a multi-disciplinary perspective, including the historical development of scientific methods and reasoning, effective experimental design, and the interpretation of measurements. Prerequisite: must be accepted into Science Honors Research Program.
SHP 401. Science Honors Capstone
Seminar (2). Skills and techniques for communicating the results of scientific research. Students prepare the final draft of their Science Honors Thesis as part of the coursework. Prerequisite: SHP 301. Must be in second year of Science Honors Research Program.
SHP 497. Science Honors Thesis (1).
Completion of Science Honors thesis. Strategies for effective oral presentation of scientific work will also be covered. Students must present results of Science Honors project at SOURCE. Prerequisites: admission to Science Honors Program and SHP 401.

## SCIENCE TALENT EXPANSION PROGRAM

Ellensburg
Lind Hall, room 119B

509-963-3002
www.cwu.edu/ ~step/

## Contact

Jessica Nye, STEP Coordinator
The Science Talent Expansion Program (STEP) is an innovative program designed to prepare and retain students in majors and careers in science, technology, engineering, and mathematics (STEM) fields. STEP consists of an integrated sequence of classes, enrichment activities, and student research opportunities through which students gain hands-on experience in modern scientific research methods, explore theme-based interdisciplinary scientific issues, and develop mentoring relationships with CWU STEM faculty.

Application to STEP is open to new freshman and transfer students with an interest in and aptitude for STEM fields

STEP freshman participate in a three-quarter-long series of courses known as the STEP Freshman Science Seminar (STEP 101, STEP 102, and STEP 103). Completion of these three courses satisfies one of the Natural Sciences General Education Program requirements. Students who successfully complete the STEP Freshman Science Seminar series will be eligible to apply for
and participate in the STEP Sophomore Bridging Program. The STEP Sophomore Bridging Program provides the opportunity for students in their sophomore year to have a paid position doing undergraduate research, recruiting for STEP, or as a Teaching Assistant in various STEM courses. Those students who have already had some college-level experience are invited to apply directly to the STEP Transfer Bridging Program and will take two STEP courses, STEP 301 in the fall and STEP 302 in the winter. Upon completion of these courses, transfer students will have the opportunity to apply for a paid position in the STEP Transfer Bridging Program.

The Science Talent Expansion Program at CWU involves faculty members from several academic departments: Biological Sciences, Chemistry, Computer Science, Geological Science, Industrial \& Engineering Technology, Mathematics, and Physics. More information about the program and participating faculty members is available on the STEP Web site.

## STEP Courses

STEP 101. Science Seminar I: Research
Experience (2). First course in three-quarter freshman science series. Students gain practical introduction to the scientific process through designing and conducting experimental, laboratory, and field investigations. Students must take STEP 101, 102, and 103 to receive credit for Applications of Natural Science breadth area. Prerequisite: must be a freshman student accepted into STEP and enrolled in coordinated special section of UNIV 101 course.
STEP 102. Science Seminar II:
Interdisciplinary Research Theme (3).
Second course in three-quarter freshman science series. Students will take an interdisciplinary approach toward a class research project centered on a single theme. Students must take STEP 101, 102, and 103 to receive credit for Applications of Natural Science breadth area. Prerequisite: STEP 101 or permission if the instructor. Freshman students enrolled in STEP program, by permission of instructor only.
STEP 103. Science Seminar III: Current Topics (1). Third course in three-quarter freshman science series. Topical survey of active research efforts by faculty and students in science, technology, and mathematics fields at CWU. Students must take STEP 101, 102, and 103 to receive credit for Applications of Natural Science breadth area. Prerequisite: STEP 101 and 102. Freshman students enrolled in STEP program by permission of instructor only.
STEP 301. Bridge Seminar I: Survey of Research Opportunities (1). First course in two-quarter sequence for incoming transfer students. Students are introduced to undergraduate research opportunities at CWU and learn to write an effective research proposal. Prerequisite: Enrollment in STEP program; by permission of instructor only.

STEP 302. Bridge Seminar II (2). Second course in a two-quarter sequence for incoming transfer students. Students develop research and critical thinking skills through careful reading of scientific publications and hands-on experiments. Prerequisites: STEP 301 and enrollment in STEP program; by permission of instructor only.

## UNIVERSITY AND ENRICHMENT

## First Area

University studies incorporates three distinct areas. The first area includes the UNIV 101, 102, and 103 courses. These courses are ancillary courses that enable students to build skills needed to succeed at CWU. These courses allow students to learn about the General Education program, graduation requirements, develop skills for academic and social success, learn about major and minor programs, and how to approach developing an appropriate career. UNIV 101 is a required course for all students who have 44 or fewer transfer credits.

## University Courses

UNIV 101. Academic Advising Seminar (1).
This course is designed for students to learn about the mission of the general education program and majors in order to make informed academic decisions and discover opportunities for personal growth.
UNIV 102. Strategies for College Success (2). Course will teach essential study skills for succeeding in and graduating from college. Students will learn how to develop habits that lead to academic success.
UNIV 103. Career Exploration (2). Designed to assist students in researching and assessing their career goals through classroom coursework and career-related interest and personality inventories.
UNIV 109. Introduction to Civic Engagement (2). The student will use civic engagement to identify and explore career interests and meet community needs.
UNIV 295. Introduction to Undergraduate Research (2). This class will prepare students to conduct faculty-mentored research and creative expression projects.
UNIV 297. Enrichment Course (1). Enrichment course on various topics for freshmen and sophomores to broaden their interest areas. Grade will be $S$ or U .
UNIV 301. Career Management (2). Identify work suited to interests, personality, goals, and values. Maximize ability to obtain work in chosen field, manage career moves to maintain interest and growth through economic changes and life stages while minimizing economic dislocation.
UNIV 308. Civic Engagement Theory and

Application (4). Student combines civic engagement theory and diversity sensitivity with real-world situations and major content to design and conduct a community project.
UNIV 309. Civic Engagement (2). Student will use program of study content knowledge to improve a community situation. UNIV 309 and EDCS 309 are equivalent courses.
UNIV 497. Enrichment Course (1). An enrichment course on varying topics for upper-division students to explore more deeply issues of academic interest. Grade will be $S$ or U.
UNIV 597. Enrichment Course (1). An enrichment course on varying topics for graduate students to explore more deeply issues in their areas of academic focus. Grade will be S or U .

## Second Area

The second area is the enrichment program, which includes UNIV 297, 497, and 597. These courses are designed to encourage student exploration and intellectual enrichment and are only offered during summer quarter. Enrichment courses are not intended to substitute for either general education requirements or major or minor requirements. These courses are a part of a student's enrollment planning-specifically as free electives. Only eight enrichment course credits can be counted toward a student's elective degree requirements.

## University Courses

UNIV 109. Introduction to Civic Engagement (2) The student will use civic engagement to identify and explore career interests and meet community needs.
UNIV 297. Enrichment Course (1) Enrichment course on various topics for freshmen and sophomores to broaden their interest areas. Grade will be S or U .
UNIV 308. Civic Engagement Theory and Application (4) Student combines civic engagement theory and diversity sensitivity with real-world situations and major content to design and conduct a community project.
UNIV 309. Civic Engagement (2) Student will use program of study content knowledge to improve a community situation. UNIV 309 and EDCS 309 are equivalent courses.
UNIV 497. Enrichment Course (1) An enrichment course on varying topics for upper-division students to explore more deeply issues of academic interest. Grade will be S or U .
UNIV 597. Enrichment Course (1) An enrichment course on varying topics for graduate students to explore more deeply issues in their areas of academic focus. Grade will be $S$ or U .

# THE WILLIAM O. DOUGLAS HONORS COLLEGE 

Ellensburg
Language and Literature Bldg., room 103

509-963-1445
Fax: 509-963-1206
www.cwu.edu/~dhc/

## Director

Matthew Altman, PhD
The William O. Douglas Honors College (DHC) is Central's interdisciplinary program for academically-talented students. The program is divided into two parts: a core curriculum and an upper-division scholarship experience. The core curriculum is composed of a series of courses that emphasize how the arts, humanities, sciences, and social sciences converge in considering historically important questions. Lectures are supplemented by colloquia, and courses draw heavily from the great works of world literature. The upper-division scholarship experience involves additional, advanced courses and a culminating research project in either the arts and humanities or in the sciences. DHC also sponsors cultural field trips, guest lectures, and a number of other extracurricular activities.

The college is named for U.S. Supreme Court Justice William O. Douglas, a native of Yakima, Washington, and a great supporter of higher education. Following Justice Douglas' example, the DHC encourages intellectual breadth, academic curiosity, and the application of scholarship to pressing social issues.

Students wishing to apply should contact the DHC office to find out about minimum qualifications and the application process.

DHC students must maintain a high level of academic achievement. A DHC student is in good standing when his or her cumulative grade point average (GPA) is 3.0 or higher. If any DHC student's cumulative GPA falls below 3.0 and remains below 3.0 for two consecutive quarters, the student shall be placed on academic warning for one quarter. Any student placed on warning shall be suspended from the DHC if his or her cumulative GPA is not 3.0 or above the quarter following the warning. The DHC director has the discretion to waive and/or modify these standards for individual students as long as such modification does not affect the academic integrity of the DHC, as determined by the DHC director. A student who has been suspended from the DHC may reapply only if his or her cumulative GPA reaches 3.0 or higher.

For additional information, visit the DHC office, Language and Literature Building, room 103, or call 509-963-1445. Informational literature will me mailed on request.
Douglas Basic and BreadthRequirements
Required Courses
UNIV 101 - Academic Advising Seminar (1)OR
MUS 104 - Introduction to Musical
Studies (3). ..... 1-3
DHC 140 - Humanistic Understanding I. . . . 5
DHC 141 - Humanistic Understanding II . . . 5
DHC 150 - Aesthetic Experience I. ..... 5
DHC 151 - Aesthetic Experience II .....  5
DHC 160 - Physical and
Biological Systems I ..... 5
DHC 161 - Physical and
Biological Systems II ..... 5
DHC 250 - Social and Behavioral Dynamics I. ..... 5
DHC 251 - Social and Behavioral
Dynamics II .....  5
DHC 260 - Cultural Competence I .....  .5
DHC 261 - Cultural Competence II .....  .5
DHC 270 - Integrated Learning. ..... 5

Total: 56-58

## Foreign Language

NOTE: DHC applicants are normally expected to have met the competence requirements for foreign language prior to acceptance. Students who have not done so will be required to take classes through Foreign Language 153.

## Mathematics

NOTE: DHC applicants are normally expected to have met the competence requirements for mathematics prior to acceptance. Students who have not done so will be required to take classes through MATH 154.

## Upper-division Scholarship Experience

The upper-division scholarship experience involves additional, advanced courses, and a culminating research project either in the arts and humanities or in the sciences.

## Arts and Humanities Honors

A student who completed the upperdivision honors courses in the arts and humanities as well as a thesis/capstone project will earn the title Arts and Humanities Honors Scholar.
DHC 380 - History of Science. . . . . . . . . . . . . 5
DHC 388 - Honors Seminar: Elements of Humanities Research
DHC 399 - Interdisciplinary Honors Seminar.5
DHC 488 - Honors Capstone Seminar . . . . . . 2
DHC 489 - Thesis and/or Creative Project . . 3

Total: 17

## Science Honors Program

A student who completed the upperdivision honors courses in the Science Honors program as well as a science honors thesis will earn the title Science Honors Scholar.

DHC 380 - The History of Science . . . . . . . . . 5
DHC 399 - Interdisciplinary Seminar. . . . . . . 5
SHP 301 - Science Honors Junior Seminar:
Elements of Scientific Research. . . . . . . . . . 2
SHP 401 - Science Honors Capstone
Seminar.
Undergraduate research credits in
appropriate department (e.g., PHYS 495) . 2
SHP 497 - Science Honors Thesis . . . . . . . . . . 1
Total: 17

## Douglas Honors College Scholar

A student who completes both the core curriculum and one of the upper-division scholarship experiences will be designated a Douglas Honors College Scholar by the university.

## Douglas Honors College Minor

A student who completed the following course regimen ( 35 credits) earns a DHC minor.
Select from the following: . . . . . . . . . . . . . . . 5
DHC 140 - Humanistic Understanding I (5)
DHC 141 - Humanistic Understanding II (5)
Select from the following: . . . . . . . . . . . . . . 5
DHC 150 - Aesthetic Experience I (5)
DHC 151 - Aesthetic Experience II (5)
Select from the following: . 5
DHC 160 - Physical and Biological Systems I (5)
DHC 161 -Physical and Biological Systems II (5)
Select from the following: . . . . . . . . . . . . . . 5
DHC 250 - Social and Behavioral Dynamics I (5)
DHC 251 - Social and Behavioral Dynamics II (5)
Select from the following: . . . . . . . . . . . . . . . 5
DHC 260 - Cultural Competence I (5) DHC 261 - Cultural Competence II (5)

## Required Courses

DHC 270 -Integrated Learning . . . . . . . . . . . . 5
DHC 380 - The History of Science . . . . . . . . . 5
Total: 35

## Douglas Honors College Courses

DHC 140. Humanistic Understanding I (5).
Variable topic. Courses in the humanities focuses on the analysis and interpretation of human stories of the past, present, and future in order to understand the processes of continuity and change in individuals and cultures through both documented and imaginative accounts. May be repeated once for credit under a different topic.

DHC 141. Humanistic Understanding II (5)
Variable topic. Courses in the humanities focuses on the analysis and interpretation of human stories of the past, present, and future in order to understand the processes of continuity and change in individuals and cultures through both documented and imaginative accounts. May be repeated once for credit under a different topic.
DHC 150. Aesthetic Experience I (5). Variable topic. Courses in this area explore questions about the nature of art; to understand, interrogate, and engage in the creative process; and to explore the connections between art, culture, and history. May be repeated once for credit under a different topic.
DHC 151. Aesthetic Experience II (5).
Variable topic. Courses in this area explore questions about the nature of art; to understand, interrogate, and engage in the creative process; and to explore the connections between art, culture, and history. May be repeated once for credit under a different topic.
DHC 160. Physical and Biological Systems
I (5). Variable topic. Courses in this area study physical and life systems, provide basic methods for rigorously describing the natural world, or treat social, economic, technological, ethical, or other implications of natural phenomena. May be repeated once for credit under a different topic.
DHC 161. Physical and Biological Systems
II (5). Variable topic. Courses in this area study physical and life systems, provide basic methods for rigorously describing the natural world, or treat social, economic, technological, ethical or other implications of natural phenomena. Students will perform scientific inquiry and experimentation in a laboratory setting. May be repeated once for credit under a different topic.
DHC 250. Social and Behavioral Dynamics I (5). Variable topic. Courses focus on how individuals, cultures, and societies operate and evolve and introduce disciplined ways of thinking about individuals and groups. May be repeated once for credit under a different topic.
DHC 251. Social and Behavioral Dynamics II (5). Variable topic. Courses focus on how individuals, cultures, and societies operate and evolve and introduce disciplined ways of thinking about individuals and groups. May be repeated once for credit under a different topic.
DHC 260. Cultural Competence I (5).
Variable topic. Courses focus on negotiating cultural differences by applying appropriate patterns of understanding and behavior in culturally diverse settings. Courses focus on one or more non-dominant cultures or peoples of the United States. May be repeated once for credit under a different topic.

DHC 261. Cultural Competence II (5).
Variable topic. Courses focus on negotiating cultural differences by applying appropriate patterns of understanding and behavior in culturally diverse settings. Courses focus on comparative cultures across national and continental boundaries. May be repeated once for credit under a different topic.
DHC 270. Integrated Learning (5). Variable topic. Courses take an interdisciplinary approach to examining social, economic, technological, ethical, cultural, or aesthetic implications of knowledge. In addition to department courses that embrace multiple disciplines, these opportunities include learning community service learning and international studies courses. May be repeated once for credit under a different topic.
DHC 290. Cooperative Education (1-6). An individualized, contracted field experience with business, industry, government, or social service agencies. Requires a studentlearning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated for a total of 12 credits. Grade will be S or U.
DHC 296. Individual Study (1-6).
Prerequisite: permission of instructor.
DHC 298. Special Topics (1-6).
DHC 301. Honors Seminar: Elements of
Arts and Humanities Research (2). An exploration of arts and humanities research from a multi-disciplinary perspective, including the formulation of a research question, organization of a research process, and preparation of DHC thesis or creative project proposal. Prerequisite: admission to the DHC program.
DHC 380. History of Science (5). Introduction to major themes in the history of science. Investigation of historical and scientific methods through the study of particular historical cases. Prerequisite: junior status. May be repeated once for credit.
DHC 388. Honors Seminar: Elements of Humanities Research (2). The process of writing from a multi-disciplinary perspective, including the various methods of argument, effective thesis design, and the investigation of sources.
DHC 396. Individual Study (1-6).
Prerequisite: permission of instructor.
DHC 398. Special Topics (1-6).
DHC 399. Interdisciplinary Honors Seminar
(5). Interdisciplinary approach to examining current social, economic, ethical, and cultural issues. May be repeated once for credit under a different topic.
DHC 401. Honors Capstone Seminar (3). Skills and techniques for the presentation of the results of arts and humanities research. Students prepare drafts of their DHC thesis or artist's statement for their creative project as part of their coursework. Prerequisites: DHC 301 and admission to the DHC program.

DHC 421. Douglas Honors College
Colloquium IV (2). Reading, discussing, and writing about the Great Books of the modern period. Prerequisites: admission to Douglas Honors College and DHC 323. Courses must be taken in sequence.
DHC 422. Douglas Honors College
Colloquium IV (2). Reading, discussing, and writing about the Great Books of the modern period. Prerequisites: admission to Douglas Honors College and DHC 323.
Courses must be taken in sequence.
DHC 423. Douglas Honors College Colloquium IV (2). Reading, discussing, and writing about the Great Books of the modern period. Prerequisites: admission to Douglas Honors College and DHC 323. Courses must be taken in sequence.
DHC 431. Douglas Honors College Lecture IV (1). Historical, stylistic, and biographical background relating to the works read in the corresponding colloquium. Concurrent enrollment in DHC 421, 422, or 423.
DHC 432. Douglas Honors College Lecture IV (1). Historical, stylistic, and biographical background relating to the works read in the corresponding colloquium. Concurrent enrollment in DHC 421, 422, or 423.
DHC 433. Douglas Honors College Lecture IV (1). Historical, stylistic, and biographical background relating to the works read in the corresponding colloquium. Concurrent enrollment in DHC 421, 422, or 423.
DHC 488. Honors Capstone Seminar (2). Begin planning and researching honors thesis. Prerequisite: junior, or senior standing. Grade will be S/U.
DHC 489. Thesis and/or Creative Project
(3). Honors thesis and / or creative project must be completed and approved in order to receive satisfactory grade and to graduate with arts and humanities honors designation. Class meets one hour per week. Prerequisite: DHC 488 and junior or senior standing. Grade will be $\mathrm{S} / \mathrm{U}$.
DHC 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. Requires a studentlearning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated for a total of 12 credits. Grade will be S or U .
DHC 496. Individual Study (1-6).
Prerequisite: permission of instructor.
DHC 497. Honors thesis and/or Creative
Project (2). Completion of honors thesis or creative project. Students must complete a thesis or creative project approved by their faculty advisor and the DHC director and present at the DHC presentation event to receive credit for the course. Prerequisites: DHC 301, DHC 401, and admission to the DHC program.
DHC 498. Special Topics (1-6).

## WOMEN'S STUDIES PROGRAM

Ellensburg

Language and Literature Bldg., room 318

## 509-963-2488

Fax 509-963-1822
www.cwu.edu/ ~womens_studies
See Web site for how women's studies could be used for educational and career purposes.

## Director

Cynthia D. Coe, PhD

## Program Information

Women's studies cultivates a critical awareness of the contributions of women and the impact of gender in our lives, both historically and in the contemporary world. Our interdisciplinary scope includes examining these issues from the perspective of politics, anthropology, sociology, psychology, history, philosophy, art, and literature. The objectives of the program are:

1. To explore existing knowledge about women and gender in a variety of disciplines
2. To critically assess the traditional disciplines in the light of new data concerning women and gender
3. To provide an academic foundation for students planning careers in women's studies or related fields
4. To promote research about women and gender within existing disciplines
Women's studies offers an
interdisciplinary minor as described below. With approval of the women's studies director, the student will select appropriate electives to meet personal and professional goals.

With faculty advisement, interested students may construct individualized majors in women's studies through the individual studies program for BA or BS major.

## Women's Studies Minor

Required Courses
WS 201 - Introduction to Women Studies . . . 5
Select 18 credits from the following: . . . . . 18
ANTH 356 - Gender Roles in CrossCultural Perspective (4) ANTH 384 - Language and Gender (4) COM 402 - Gender Communication (4) ENG 335 - Women's Literature (4) HIST 346 - Women in American History (5)
HIST 449 - History of Women and the West (5)
PHIL 325 - Women and Philosophy (5)
PHIL 357 - Race, Class, and Gender in American Philosophy (5)

POSC 311 - Women and Politics (5) PSY 313 - Queer Theory and Sexuality (4)
PSY 483 - Psychology of Women (3) (Prerequisite, PSY 101 (5)
SOC 348 - Women and Crime (4)
SOC 356 - Sociology of Gender (5)
SOC 388 - Women in Management (3)
TH 377 - Staging Gender (4)
Special topics, internships, and individualized study
WS 488 - Colloquium .
Total Credits: 25

## Women's Studies Courses

WS 201. Introduction to Women Studies
(5). A survey of women studies from an interdisciplinary perspective. Basic terms, concepts, theories, and research methodologies will be introduced. Genderrelated issues will be examined from the historical, cross-cultural, and cross-national perspectives.
WS 384. Language and Gender (4). This course is designed to guide students to explore the active and rapidly expanding field of gender studies and language research dealing with how biological and cultural awareness of sexes are reflected in speech. WS 384 and ANTH 384 are equivalent courses. Students may not receive credit for both.
WS 398. Special Topics (1-6).
WS 488. Colloquium (2). This course serves as the culminating experience for the Women Studies minor. Students will write a five-page paper that synthesizes the major approaches and ideas they have encountered in their coursework for the minor.
WS 490. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination.
WS 491. Workshop (1-6).
WS 496. Individual Study (1-6). May be repeated.
WS 498. Special Topics (1-6).
WS 499. Seminar (1-5). May be repeated.

## PRE-PROFESSIONAL PROGRAMS

These programs are planned for two groups of students-those who want one or two years of college work prior to entering an occupation, and those who want to do preprofessional work for one, two, three, or four years before entering a professional school, university, or college.

The programs described are not to be considered unalterable. They represent patterns that generally agree with the
requirements of many professional schools. Since there are many variations in the requirements of the professional schools, students should, after consulting the CWU catalog, select courses required by the institution from which they expect to earn a degree.

The following pre-professional programs are offered: Pre-dentistry, Pre-dietetics, Pre-engineering, Pre-law, Pre-medicine, Pre-occupational Therapy, Pre-optometry, Pre-pharmacy, Pre-physical Therapy, Preveterinary.

## Pre-Dentistry

## Advisor

Linda Raubeson, PhD
Department of Biological Sciences
Science Building 338L
509-963-2734

Most students enter dental school with a bachelor's degree. A pre-dentistry major is not offered. Any major is acceptable provided the dental school admission requirements are met. Most students major in biology or chemistry. Schools vary in which science classes are required. A background in the social sciences and humanities is also expected; however, there are no firm expectations for coursework in these subjects beyond English. The American Dental Association (ADA) Web site, www.ada.org/prof/ed/index.asp provides links to individual dental schools. Pre-dental students are encouraged to learn the specific requirements for their potential schools. Students applying to dental school must have taken the Dental Aptitude Test (DAT). Information on the DAT is also available on the ADA Web site. General biology, general chemistry, and organic chemistry courses should be completed prior to attempting the DAT. Completing additional coursework in biology should also improve DAT performance.

## Required at Most Dental Schools: Required Courses

CHEM 181, 181LAB, 182, 182LAB, 183,
183LAB - General Chemistry I, 11, 111
CHEM 361, 361LAB, 362, 363, 363LAB -
Organic Chemistry I, II, III . . . . . . . .
PHYS 111, 111LAB, 112, 112LAB, 113,
113LAB - Introductory Physics 8-13

BIOL 181, 182, 183 - General Biology15

## Required at Some Dental Schools:

Required Courses
CHEM 431, 431LAB, 432 - Biochemistry I, II 8 MATH 153, 154 - Pre-Calculus
Mathematics I, II . . . . . . . . . . . . . . . . . . . . . . 10
BIOL 323 - Microbiology . . . . . . . . . . . . . . . . . 5
One additional quarter of Microbiology, e.g., BIOL 426 - Medical Microbiology (3)

## Recommended

BIOL 321 - Genetics . . . . . . . . . . . . . . . . . . . . . 5
BIOL 354 - General Vertebrate Embryology . 5
BIOL 355, 356 - Human Anatomy
and Physiology . . . . . . . . . . . . . . . . . . . . 5-10
OR
BIOL 455 - Zoophysiology
Additional coursework in biology,
e.g. BIOL 421, BIOL 422, BIOL 423,

BIOL 425, and / or BIOL 454
Total Credits: 91

## Pre-Dietetics

## Advisor

Virginia Bennett, PhD, RD, CD
Nutrition, Exercise, and Health Sciences Department
Dorothy Purser Hall, room 134
509-963-3360

A registered dietitian (RD) is an expert on foods and how they affect human health. An RD is registered by the American Dietetic Association (ADA) as an individual who has completed an accredited four-year undergraduate program. The BS in Food Science and Nutrition (Nutrition and Dietetics specialization) is an accredited program with the Commission on Accreditation for Dietetics Education (CADE). In addition, the individual must complete a 1,200-hour accredited supervised practice experience at one of over 200 dietetic internship sites. Finally, individuals must then pass the registration examination to attain the RD credential. Please see the advisor for more information. Dietitians may work in hospitals, clinics, and nursing homes as clinical dietitians; for government and public health agencies as community dietitians, and in food service departments of hospitals, schools, nursing homes, and restaurants as management dietitians. In addition, dietitians also are employed as researchers, educators, and as consultants in a variety of settings.

## Pre-Engineering

## Advisor

Michael Braunstein, PhD
Lind Hall, room 203D
509-963-2761

## Assistant Professor

Sharon Rosell, MS
Lind Hall, room 203C
509-963-2757
Most colleges of engineering accept students into their programs only after they have successfully completed a pre-engineering course of study. This usually takes the first two or three years of a student's college career, and can be done at CWU. Then the student must transfer to the engineering school of his or her choice and apply for admission to the particular engineering program wanted. She or he will graduate from that college and
therefore must satisfy its requirements.
The course requirements in engineering vary considerably for different fields of engineering and for various colleges of engineering. The most important step a preengineering student can take is to consult the catalog of the particular college of engineering the student hopes to attend and then to plan a program at CWU to satisfy as many specific requirements of that college as possible. Students whose plans are not definite are advised to follow the typical first-year program outlined below and have a firm choice of an engineering program by the beginning of their second year. The pre-engineering advisor can assist you in these matters.

Students selecting this program must have completed a full year of high school calculus, or have a satisfactory score on the Math Placement Test Form PC, which is given by the mathematics department, or MATH 154. These are prerequisites to MATH 172.

The Department of Physics also offers a bachelor of science, physics major engineering, in which the student receives degrees in physics and engineering. Consult the physics department chair, or pre-engineering advisors for additional information about this program

## First-year Courses

PHYS 181, 182LAB, 182, 182LAB,
183, 183LAB
MATH 172, 173, 272 . . . . . . . . . . . . . . . . . . . . . 15
IET 165 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CSS 177 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ENG 101, 102 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Total Credits: 51

## Pre-Law

## Advisor

Charles Reasons, PhD, LLB, JD
Department of Law and Justice
Farrell Hall, room 316
509-963-1779
The attainment of a law degree ordinarily involves a seven-year program-the completion of an undergraduate degree (four years), followed by three years at law school. Before winter quarter of one's senior year, a future law student should take the Law School Admission Test (LSAT) and apply to law schools.

Law schools do not require a particular major or courses as a condition for admission. Common undergraduate majors found in the law school population are history, English, economics, business, political science, and philosophy. No specific major will ensure admittance to law school. The most important criteria are your GPA and your score on the Law School Admissions Test (LSAT). The pre-law student should seek a course of study which enhances his or her verbal comprehension and analytical
thinking. Critical understanding of the human institutions and values with which the law deals is also very helpful.

The law and justice department offers an advisory program designed to assist students in choosing and gaining admission to law schools, with several advisors having law degrees. The pre-law student should carefully plan his or her program in close consultation with an advisor.

## Pre-Medicine

## Advisor

Levente Fabry-Asztalos, PhD
Department of Chemistry
Science Building, room 302J
509-963-2887
This program prepares students for entering professional schools of medicine (MD or DO). In addition to the required science courses, a broad humanities and liberal arts background is encouraged. Although premedical students usually major in the sciences (85 percent), any arts or science major is acceptable. Regardless of their academic major, pre-medicine students must work closely with the pre-medicine advisor in order to insure their proper preparation for medical school. The university's pre-medicine program is supported by approximately 20 full tuition and books scholarships, which are based on academic excellence, not need.

## Pre-Nursing in Public Health

Advisor
Melody Madlem, PhD
Physical Education, School, and Public Health Department
Physical Education Building, room 108 509-963-1971

The pre-nursing in public health specialization within the public health major prepares students to meet entrance requirements to bachelor of science in nursing (BSN) programs throughout Washington. Armed with leading-edge scientific knowledge and liberal arts content, combined with an extensive public health internship, the prepublic health nursing specialization allows future professionals to enter nursing school with a solid background in public health theory and practice. CWU does not offer a degree program in nursing, but offers all prerequisite courses necessary for successful admission to professional nursing programs available across Washington.

Most pre-nursing students will complete the BS degree in public health with a specialization in pre-nursing in public health. The specialization also prepares students to assume key roles within public health agencies as health promotion specialists/ prevention specialists. With a comprehensive background
in population-based health, graduating students can make immediate contributions to the health of the public.

Pre-requisites for admission to nursing school that meet General Education Requirements for pre-nursing specialization: SOC 101 or 107 or 205; PSY 101; CHEM 111 and CHEM 111LAB; BIOL 201.

Public Health Core Requirements
HED 210 - Drugs and Health . . . . . . . . . . . . . 3
HED 230 - Foundations of Health Education 3
HED 310 - Community Health . . . . . . . . . . . . . 3
HED 317 - International Health . . . . . . . . . . . . 3
HED 320 - Environmental Health Education 3
HED 330 - Health Assessment . . . . . . . . . . . . . 4
HED 370 - Current Trends in Health and
Health Education . . . . . . . . . . . . . . . . . . . . . .
HED 387 - Principles of Fitness and Stress
Managemen
. . 3
HED 422 - Methods for Health Promotion . . . 4
HED 445 - Health Education
Professionalism . . . . . . . . . . . . . . . . . . . . . . . . 1
HED 450 - Community Organization and
Coalition Development
. . 3
HED 471 - Program Planning I . . . . . . . . . . . . . 5
HED 472 - Program Planning II . . . . . . . . . . . . 5
HED 473 - Health Education Program
Evaluation
. . 3
HED 475 - Community Health
Administration
HED 490 - Cooperative Education . . . . . . . . 10
NUTR 245 - Basic Nutrition . . . . . . . . . . . . . . 5
Total Core Credits: 64

## Additional Courses

BIOL 220 - Introductory Cell Biology . . . . . . 5
BIOL 322 - Introductory Microbiology ..... 5
BIOL 355 - Human Anatomy and
Physiology . . . . . . . . . . . . . . . . . . . . . . . . . . 5
BIOL 356 - Human Anatomy and
Physiology . . . . . . . . . . . . . . . . . . . . . . . . . . 5
CHEM 112 - Introduction to Organic
Chemistry ............................... . . . . 4
CHEM 112LAB - Introduction to Organic
Chemistry Laboratory . . . . . . . . . . . . . . . .
CHEM 113 - Introduction to Biochemistry . . 4
CHEM 113LAB - Introduction to
Biochemistry Laboratory . . . . . . . . . . . . . . . 1
MATH 311 - Statistical Concepts and
Methods
. 5
PSY 313 - Developmental Psychology . . . . . . 4
Total Credits: 103

## Pre-Occupational Therapy

## Advisor

Susan Lonborg, PhD
Department of Psychology
Psychology Bldg., room480
509-963-2397
The pre-occupational therapy program is an advising program through which a student can prepare for admission to a professional occupational therapy program at another institution. CWU does not offer a degree program in occupational therapy or pre-occupational therapy, but does offer all
prerequisite courses necessary for successful admission to the professional phase at another university.

Most pre-occupational therapy students will complete their undergraduate degree at CWU and then apply to the program(s) of their choice. Detailed information concerning appropriate undergraduate coursework and professional occupational therapy programs in the Pacific Northwest is available in the Department of Psychology or by visiting www.cwu.edu / ~biology/ugrad / preprof/ preOccupational.html.

## Pre-Optometry

## Advisor

Linda Raubeson, PhD
Department of Biological Sciences
Science Bldg., room 338L
509-963-2734
Optometrists are primarily involved in testing eyesight for the purpose of prescribing corrective lenses. Students interested in optometry usually obtain a four-year degree prior to entering optometry school. Alternatively, students may take a three-year pre-optometry program at Central and then transfer to the optometry school of their choice where they will complete a two- or threeyear program. The 19 schools in the U.S. and Canada offering professional optometry degree programs vary in their entrance requirements. Therefore, students interested in pre-optometry should determine the specific requirements of the optometry school to which they wish to transfer. Most schools require some experience (observation) with optometry prior to application. Social science, humanities, and writing courses are usually required in addition to the science courses listed below. The OAT (Optometric Aptitude Test) scores are required to apply to most schools. For links to optometry schools, information about the OAT, application procedures and other useful information, see the Association of Schools and Colleges of Optometry Web site at www.opted.org.

## Commonly Required Courses

BIOL 181, 182, 183, 323 . . . . . . . . . . . . . . . . . . . 2
BIOL 355, 356 - Human Anatomy and
Physiology
CHEM 181, 181LAB, 182, 182LAB, 183 ,
183LAB - General Chemistry I, II, III . . . . 15
CHEM 361, 361LAB, 362 - Organic
Chemistry I, II 8
PHYS 111, 111LAB, 112, 112LAB,
113, 113LAB - Introductory Physics . . . . . 15
PSY 101 - General Psychology . . . . . . . . . . . . 5
1 quarter calculus . . . . . . . . . . . . . . . . . . . . . . . 5
1 quarter statistics . . . . . . . . . . . . . . . . . . . . . . 5
To earn a BA in biology the following courses would also be required:
BIOL 321, 499S - Plant Biology . . . . . . . . . . . . 6
1 quarter of ecology - . . . . . . . . . . . . . . . . . . . 5

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## Pre-Pharmacy

Advisor
Levente Fabry-Asztalos, PhD
Department of Chemistry
Science Bldg., room 302J
509-963-2887
A pre-pharmacy program of study may be developed that prepares students for admission into professional programs at any university granting a pharmacy doctoral degree (Pharm-D). Central does not offer a degree program in pharmacy, but does offer all prerequisite courses necessary for admission to pharmacy programs at other universities.

Contact the pre-pharmacy advisor, Dr. Levente Fabry-Asztalos in the Chemistry Department for help in determining a program of study, for advice on scheduling, or for more details on any aspect of the pre-pharmacy program. See also the CWU Health Career Resources Web site at www.cwu.edu/ ~healthcareers/

## Pre-Physical Therapy

## Advisor

David Darda, PhD
Department of Biological Sciences
Science Bldg., room 338
509-963-2731
The pre-physical therapy program is an advising program through which a student can prepare for admission to a professional physical therapy program at another institution. CWU does not offer a degree program in physical therapy or pre-physical therapy, but does offer all prerequisite courses necessary for successful admission to the professional phase at another university.

Most pre-physical therapy students will complete their undergraduate degree at

CWU and then apply to the program(s) of their choice. Detailed information concerning appropriate undergraduate coursework and professional physical therapy programs in the Pacific Northwest is available in the Department of Biological Sciences or by visiting www.cwu.edu/~biology / ugrad/ preprof/prePhysical.html.

## Pre-Veterinary

## Advisor

R. Steven Wagner, PhD

Department of Biological Sciences
Science Bldg., room 236K
509-963-3105
A pre-veterinary program at Central should prepare the student for admission into a veterinary medicine program. Students planning a career in veterinary medicine must complete the following before applying to a college of veterinary medicine. (Note: BIOL 499 is required for a BA or BS)

## Required Courses

BIOL 181, 182, 183 - General Biology . . . . . . . 15
BIOL 321 - Genetics . . . . . . . . . . . . . . . . . . . . . 5
CHEM 181, 181LAB, 182, 182LAB, 183 ,
183LAB - General Chemistry I, II, III . . . . 15
CHEM 361, 361LAB, 362 - Organic
Chemistry I, II . . . . . . . . . . . . . . . . . . . . . . . 8
CHEM 431, 432 - Biochemistry I, II . . . . . . . . 6
MATH 153, 154 - Pre-calculus
Mathematics I, II . .
PHYS 111, 111LAB - Introductory Physics . . 5
Minimum Natural Science and Mathematics credits for admission
to a college of veterinary medicine
Department-approved electives:
General university requirements for graduation 45

Total Pre-veterinary credits required for admission: 114


## OFFICE OF CONTINUING EDUCATION (CE)

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. All programming and services are offered on a self-support basis, and no-tuition-waiver programs apply. Please see our Web site at www.cwuce.org or call 509-720-4503 for complete information on the following programs:

## Cornerstone Program (College in the High School)

The Cornerstone Program is designed to offer highly capable students the opportunity to take rigorous college courses while in high school. The courses are taught by qualified high school instructors who have been approved as Central lecturers. All Cornerstone classes are the same challenging courses offered at the university. Courses are offered in English, math, sociology, psychology, music, physics, family and consumer sciences, foreign languages, and humanities. The credits earned, if applied at CWU or transferred to another institution, can enhance students' progress toward a degree, reduce the cost of college, and strengthen their chances of being accepted to their college of choice. For more information, visit www. cwuce.org/ cornerstone.

## Community College Teaching Certificate Program

The new CWU Community College Teaching certificate program prepares participants for what to expect and how to succeed as a teacher in the community college classroom.

## Topics Covered

The program includes four workshops:

- Becoming a Successful Community College Faculty Candidate
- Instructional Technologies
- Assessment
- Teaching in the Diverse Classroom

Full workshop descriptions are available at www.cwuce.org / cct. Continuing education tuition rates apply.

## Distance Learning

Distance learning provides convenient, computer-based learning opportunities. Courses are delivered either on CD-ROM or over the Web, and can be taken in one's own home or office. Courses are available in many career areas, including information technology, business, travel, legal, graphic design, medical coding, pharmacy technician,
education, and others. For current offerings see our online catalog at www.cwuce.org / distance-learning.

## Professional Certificate for Teachers

Continuing Education and the Center for Teaching and Learning offer this opportunity for educators to work toward their professional certification by enrolling in any of up to four classes, depending on your desired level of support. The entire program is designed for flexibility in helping educators work toward their professional certification. Courses are offered on CWU's main campus in Ellensburg, at all of our Centers, and online. For more information visit www.cwu.edu / ~cert / profCert.html.

## Professional Development for Educators

Numerous 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, and affordable options for credit or clock hours. Course topics include classroom management, special education, bilingual education, health and safety management, teaching strategies, technology in schools, and more. Please visit our online catalog for current offerings at www.cwuce.org/ conted / catalog.asp.

## Summer Session

Summer at Central features the golden foothills of the Cascades, the cool water of the Yakima River, warm sunny days, and clear breezy nights. It is a great place to spend your time-both inside and outside of the classroom. Enjoy learning in a relaxed atmosphere. Choose from more than 500 courses and workshops taught by experienced and engaging faculty and lecturers. Over 100 courses are taught online, so even students who are away from campus can take classes. Summer session at Central provides excellent course choices for degree-seeking students as well as professional development for K-12 educators, classroom teachers, paraprofessionals, and administrators. Campus housing and dining are available and affordable as are many other service areas including our health center, world-class library, and SURC.

Formal admission to Central as a degreeseeking student is not required for summer study. Enrollment is open to all students, including non-residents (i.e. out-of-state students). Summer tuition rates for nonresident students are the same as those rates charged to residents.

A complete list of summer session courses and workshops is available for currently enrolled students or as a pdf at www.cwu.edu $\sim$ regi/ course_information.html. The schedule
is updated weekly. For more information about summer session at Central, see www.cwu.edu / ~summer.

## WEST-B Test Preparation

WEST-B stands for Washington Educator Skills Test - Basic. It is the basic skills test used throughout Washington. All individuals applying for admission to state-approved teacher preparation programs, and teachers from other states applying for a Washington residency teaching certificate, are required to meet the minimum passing score on the basic skills assessment. Continuing Education offers the Basic Skills Test Prep Course, an interactive CD-ROM that guides learners through the subject areas on the WEST-B exam. It provides information, learning materials, and practice exams in an easy-to-understand self-paced learning environment. For more information, visit www.cwuce.org / west-b.

## World Wine Program

The World Wine Program features learning opportunities for consumers, individuals who work in the wine industry, and those who would like to gain the skills and knowledge necessary to enter or do business with the wine industry. The World Wine Program features four tracks:

Academic Programs are career-oriented and designed for people interested in entering the wine industry, or wine professionals who want to broaden their knowledge and increase their competitive edge. The Global Wine Studies degree is our flagship program (see below or visit www.cwuce.org/wineeducation/Degree.asp). The 15 -credit, Wine Trade Professional Certificate (see below) is available as a stand-alone certificate program or as part of the Wine Trade and Tourism minor (see Family and Consumer Science, Recreation and Tourism section of this catalog). Trade Training Courses are designed for both veteran industry professionals and new employees. These non-credit courses help industry professionals gain in-depth knowledge in specific wine-related subject areas, including wine faults, professional palate training, advanced wine analysis, blind tasting techniques, importing/exporting, tasting profiles, consumer motivation, and more.

Consumer Courses teach individuals about wine in a fun and non-intimidating way. Courses are social and interactive learning experiences that include tastings. These non-credit, consumer-oriented, short courses cover topics like wine regions of the world, wine and food pairing, wine faults, and more. Our wine education DVD series, "A Wine Odyssey," allows wine lovers to learn more about wine in the comfort and convenience of their homes.

Custom Training includes short, noncredit, trade-oriented courses and workshops
developed and customized for the grape, wine and related industries (e.g. wineries, lending institutions, retailers, restaurants, etc.) to meet their individual needs.

For more information, visit www.cwuce. org/wine-education.

## Global Wine Studies

Advisor: Amy Mumma, MBA, Department of Continuing Education

The Global Wine Studies degree is for anyone with an interest in pursuing a career in the wine industry. This interdisciplinary program provides students with a broad understanding of the global wine industry. The program prepares graduates for careers in winery and vineyard management, wine merchandising, wholesale, retail, e-commerce, distribution, marketing, import/export, hospitality, entrepreneurship, consulting, and more. The degree is offered through the Office of Continuing Education in collaboration with Family and Consumer Sciences. In the major, students complete 50 core credits to acquire a broad base of knowledge and skills related to wine, wine business issues, and the global wine industry. Students also complete a minor, 25 to 36 credits, in one of several complementary academic areas. Students will also gain valuable experience by participating in a required international field experience and an internship with a winerelated business, either in the US or abroad. Students must be 21 years of age or older and must apply for acceptance into the program. Permission of the certificate program advisor is required. Because Global Wine Studies (GWS) courses are self-support, no tuition waiver programs apply. Tuition for GWS courses is higher than regular CWU tuition. Additional course fees may also apply. For course and application details, see the Family and Consumer Sciences section of this catalog or visit
www.cwuce.org/ wine-education/ Degree.asp

## Wine Trade Professional Certificate

Advisor: Amy Mumma, MBA, Department of Continuing Education

The Wine Trade Professional Certificate is offered through the Office of Continuing Education in collaboration with Recreation and Tourism. It is a comprehensive educational program that focuses on the business and trade aspects of the wine industry. Topics covered include viticulture, winemaking, world wine regions, styles and trade structures, the business of wine, wine marketing, merchandising, and professional evaluation techniques. Graduates will be prepared for careers in wine sales and merchandising, wholesale, retail, distribution, marketing, import/export, consulting, hospitality, and more. The certificate is
intended for individuals currently in the wine and associated industries or for those who would like to gain the skills and knowledge necessary to enter the wine industry.

Students will be expected to spend significant amounts of time outside the classroom working on projects and assignments. Students must obtain a grade of B- or above in all four courses to receive the certificate. Students must be 21 years of age or older and must apply for acceptance into the program. Permission of the certificate program advisor is required. Because Global Wine Studies (GWS) courses are self-support, no tuition waiver programs apply. Tuition for GWS courses is higher than regular CWU tuition. Additional course fees may also apply.

## Pre-program Admission Requirements:

 Students must complete the preadmission requirements prior to admission into the certificate program.Applicant must:

1. Be at least 21 years of age prior to the first day of class.
2. Have a high proficiency with written and oral English language
3. Have successfully completed at least 45 quarter credits (or 30 semester credits) of courses from an accredited college or university, including at least two collegelevel English composition courses
4. Have an overall minimum college GPA of 2.5 (on a 4.0 scale)
5. Fill out and submit the certificate program application, including a written essay of personal motivation and goals
6. Sign and submit the written statement regarding personal and professional conduct and responsibility with regard to the use of alcohol
7. Submit a CWU CAPS report and/or all previous college/ university transcripts. International students must additionally provide a TOEFL IBT score of 71 or higher, or successfully complete Level 5 of the CWU UESL (University English as a Second Language) program. The completed application will be reviewed by the program advisor. Upon approval of the application, an in-person or telephone interview will be conducted between the program advisor and the prospective student. Permission of the advisor is required for admission.

## Required Courses

GWS 302 - Fundamentals of Viticulture and Enology . . . . . . . . . . . . . . . . . . . . . . . . 4 GWS 303 - Major Wine Regions of the World 4 GWS 304 - Wine Marketing and Branding . . 4 GWS 406 - Professional Wine Analysis . . . . 3

Total Credits: 15

## Craft Beer Trade Certificate

Program Advisor
Steve Wagner, PhD
Department of Biological Sciences
The Craft Beer Trade Certificate is offered by the Office of Continuing Education and the Department of Biological Sciences. It is for students with an interest in pursuing a career in the beer industry. It is an interdisciplinary program designed to be completed in an intensive 10-week session. The program provides an overview of the science, technology and sales/merchandising aspects of the craft beer brewing industry. Topics include principles of malting and brewing, brewing process technology, brewing microbiology and principles of merchandising management for the brewing industry. Students learn about the trade using a variety of approaches including lab work, hands on experiences, lectures, field trips, and industry speakers. The program prepares graduates for careers in a wide range of areas in the brewing and business sides of the industry.

A minimum overall college GPA of 2.5 is required for admission. Students must apply for acceptance into the program and must be 21 years of age or older to enroll in the program. Permission of the certificate program advisor is required. Students will be expected to spend significant time outside the classroom working on assignments and projects. Some sessions may meet on Saturdays. In order to receive the certificate, students must earn a grade of B- or above in each of the four courses.

## Financial Obligations

Because this is a self-support funded program, no tuition waiver programs apply. Additional course fees and continuing education tuition applies.
Pre-admission requirements
MATH 153 - Pre-calculus Mathematics I. . . (5)

## Choose one of the following:

CHEM 101 - Contemporary Chemistry (4)
CHEM 111/111LAB - Introduction to Chemistry/Lab (5)
CHEM 181/181LAB - General Chemistry/Lab (5)

## Required Courses

Pre-admission Requirements. . . . . . . . . . . . . 10
BIOL 312 - Brewing Microbiology . . . . . . . . . 4
BIOL 317 - Principles and Biochemistry of Brewing.
RMT 320 - Principles of Merchandising
Management for Micro Brewing. . . . . . . . . 5
IET 360 - Brew Process Technology . . . . . . . . 3


## 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 Office of Graduate Studies and Research 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: Roger Fouts, PhD
Director of Sponsored Research: Vacant Research and Sponsored Programs
Administrator: Julie Guggino
Fiscal Technician III: Vacant

## Graduate Studies

Admissions Program Coordinator: Justine Eason
Post-admission Program Coordinator: Dawn Muzzall
Program Assistant: Diane Houser
Barge Hall, room 305
509-963-3103
509-963-1799 Fax
masters@cwu.edu
www.cwu.edu / ~masters

Business hours: 8 a.m. -5 p.m., Monday through Friday (PST), except holidays. If you call during non-business hours, be sure to let us know when and where to reach you and we will return your call as soon as possible.

## General Information

The graduate experience at CWU is challenging, rewarding, and exciting. But, like every quality experience, it is subject to certain rules and policies to insure that high academic standards are maintained. Below, we present information about CWU's graduate programs. We seek to ensure that graduate students are fully apprised of the policies and procedures governing student progress. 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, sex, age, marital status, or any sensory, physical, or mental handicap.

Additional information concerning university policies and regulations applicable to graduate programs, including accreditation, institutional memberships, grading practices, mission and roles, and tuition and fees, will be found in various sections of this catalog. Consult the Table of Contents or index for further information.

## 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, fifth-year and other certification programs, and non-degree study as a resident or visiting graduate student.

## Programs of Graduate Study

Central Washington University offers the following graduate degrees:

## Master of Arts

Art
English: Literature
English: TESOL
History
Individual Studies
Theatre
Master of Arts in Teaching Mathematics

Master of Education
School Administration
Individual Studies
Instructional Leadership
Master Teacher
Reading Specialist
School Counseling
School Psychology
Special Education
Master of Fine Arts
Art
Master of Music
Music
Master of Professional Accountancy
Master of Science
Biology
Chemistry
Mental Health Counseling
Engineering Technology
Experimental Psychology
Exercise Science
Family and Consumer Sciences Geology
Health and Physical Education
Individual Studies
Nutrition
Primate Behavior
Resource Management

## Graduate Certificates

In addition to the degree programs available, CWU offers the following graduate certificate programs. See Graduate Certificate Programs below for details.

Renewal of Initial or Residency Certificate Fifth-year of Study for Continuing or Professional Certificate
Endorsement-only Program
Continuing Principal's Certificate
Continuing Program Administrator Educational Staff Associate Certificate School Counselor
School Psychologist

## Application and Admission to Graduate Study

## 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 fouryear 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 Graduate Studies and Research, 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, will 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 Graduate Studies and Research. 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 $3.0(\mathrm{~B})$ 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.

Confirmation Fee: A nonrefundable \$55 tuition deposit/confirmation fee is required to verify acceptance of the offer of admission. This payment is due by May 1 for fall quarter, November 1 for winter quarter, and January 1 for spring quarter, or within two weeks of the date of acceptance, whichever is later. Although this prepayment is not required for summer quarter, a $\$ 40$ registration fee is required before registering for summer classes. These fees are subject to change when tuition rates are revised. Additionally, a letter of intent may be required by some departments.

## International Applicant

In addition to the above requirements, all international applicants must complete the Application of International Students, obtainable from the Office of Admissions. 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) score of 550 paper-based, 79 Internet-based ( 213 computerbased). Scores should be no more than two years old at the time of application, or b) a baccalaureate degree from an accredited U.S. university or an accredited international university where the main language of instruction is English.

International applicants are also required to complete a confidential financial statement and submit evidence that sufficient funding is available in U.S. currency through either personal resources and/ or a sponsor for one academic year's experience at CWU.

## Applying to CWU

CWU welcomes applications from all those who meet our minimum requirements for admission. To apply, visit our Web site at www.cwu.edu and click on the admissions link or obtain a set of our application materials from:

CWU Graduate Studies and Research 400 East University Way
Ellensburg, Washington 98926-7510

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

1. A completed application for graduate admission.
2. A written statement of educational and professional objectives.
3. Three letters of recommendation written by professors or others capable of assessing your potential for success in a graduate program.
4. Official transcripts from all universities and colleges attended.
5. 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.
6. A non-refundable application fee of $\$ 50$ payable at the time of filing application. Application fees may be paid by check, credit card (MasterCard and Visa only), or cash (please do not send cash through the mail). If you wish to pay by check, make it payable to Central Washington University and send it, along with the other application materials, to the Office of Graduate Studies and Research. If you prefer to pay by credit card, you may telephone the Cashiers Office with this information (509-963-2224) to make a payment. Cash transactions should be made in person at the Cashiers Office, Barge Hall, room 104.

## 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 graduate office 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 matriculation fee of $\$ 55$ and to obtain the concurrence of the home department and the dean of Graduate Studies and Research 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 graduate office's concurrence. 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, paying the admission application fee, and providing additional documents as needed.

## Application for Certification and Non-degree Study

The university offers those seeking professional credentials, but who do not wish to pursue a master's degree, the opportunity to become post-baccalaureate students. Applications for admission to this status may be obtained from the Office of Admissions and returned to meet the appropriate deadlines.

Applicants for the continuing certificate must contact the Certification Office to organize an approved program.

Applicants for school counseling or school psychology programs leading to certification must also submit references and GRE scores. Admission procedures to these two certification programs are the same as for master's program admission.

## Assistantships and Financial Aid

The university offers a number of assistantships during the academic year to beginning and continuing graduate students. Graduate assistantships are available in each of CWU's graduate program departments. Nearly two-thirds of the university's graduate assistants teach; the remainder serve as research assistants with a few performing university service functions. Applicants must

1) Be fully admitted to a master's degree program and registered with at least 10 credits with five credits or more 501 or higher at the commencement of the contract period; (5 credits must be 501 or higher)
2) Be recommended to the position by the department where the appointee would be assigned
3) Demonstrate a high level of professional and academic promise. Priority deadline is March 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 through a formal written contract letter from the dean of Graduate Studies and Research. Award announcements are not made until sometime after April 15.

Interested persons should contact the Office of Graduate Studies and Research for assistantship applications and information at www.cwu.edu / ~masters.

Financial aid is also 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 1. Employment opportunities, both on and off campus, are typically available as well through the Financial Aid Office.

## Master's Degree Regulations

## General Regulations

The following are the general regulations governing master's degrees. 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 who is responsible for working with graduate students in developing individual courses of study, establishing graduate committees, and in advising graduate students. Some graduate departments also have a graduate coordinator. In such cases, graduate students are expected to work with this person as the program's chief officer for graduate affairs. In all matters relating to university regulations, the dean of Graduate Studies and Research is the final arbiter, though he or she consults with departmental officers in carrying out these duties.

## Graduate-Level Credit

Graduate-level credit is given for all courses at CWU numbered at the 500 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.

## Undergraduate-Level Credit

Courses at the 100, 200, and 300 level are not applicable to a master's degree at CWU. Courses at the 400 level may be accepted for credit toward a graduate degree at

CWU provided that they are taken after the student has been admitted to the master's degree program and are approved as part of the student's official course of study. In such cases, graduate students are expected to perform at a high level, while completing requirements additional to those expected of undergraduates enrolled in the course.

## 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 better and must have been completed no more than six years before the date of the student's master's degree program completion.

All credits intended for transfer must be recommended for approval by the departmental/program chair or graduate coordinator as a part of the official course of study filed with the Office of Graduate Studies and Research. Before 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 graduate office.

Credits used to fulfill requirements for another degree, either at CWU or elsewhere, will not be transferred. 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 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 Graduate Studies and Research, their advisor, and the course instructor to challenge it.


## 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

Not more than a combined maximum of 8 credits of workshop courses (591s) 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

## 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. 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 dropped 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 16 credits per quarter, 10-14 for those with assistantships. Graduate assistants taking over 14 credits must have approval from the Office of Graduate Studies and Research. For a
graduate student not holding an assistantship, a study load above 15 credits and up to 20 credits may be approved by the chair or graduate coordinator of the department of the student's specialization. Loads above 20 credits are not normally permitted. Exceptions may be made only by the dean of Graduate Studies and Research.

## 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 as may be approved by formal action by the dean of Graduate Studies and Research. 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 nonrefundable 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 better 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 project advisor is the student's graduate committee chair and generally is a faculty member in the department of specialization.

Only a regular member of the graduate faculty may serve as chair of a graduate committee. Adjunct faculty may serve as committee members with the approval of the dean of Graduate Studies and Research.

Under unusual circumstances, and with the written recommendation of a graduate student's home department or program and the approval of the dean of Graduate Studies and Research, 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.

## The Graduate Faculty

At CWU, graduate professors are 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.

## Course of Study

All candidates must complete at least 45 credits (some programs require more credits) as outlined in an official course of study, endorsed by the department chair or graduate coordinator and the committee chair and filed with and approved by the Office of Graduate Studies and Research. The credit on the course of study must be separate and distinct from credit applied toward any other degree. Course of study forms are available in the graduate office, Barge Hall, room 305.

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. 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. An approved course of study must be on file with the graduate office 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 Graduate Studies and Research, 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 projects).

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 office, which is then endorsed by the department chair or graduate coordinator, along with the student's committee chair. Upon receipt in the graduate office, each course of study is reviewed to ensure that it meets the minimum requirements of the institution.

## Individual Studies Programs

Individual studies 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 program proposals must show academic rigor, be programmatically coherent, and intellectually sound. Final approval of such programs resides with the dean of Graduate Studies and Research.

Prospective applicants seeking to pursue an individual studies degree must contact the dean of Graduate Studies and Research to discuss the feasibilities 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 credits of the total required 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 their ability to communicate effectively in writing by
satisfactorily completing one or more of the following: (a) a thesis; (b) a written report of a field study, internship, or creative project; and / or (c) a comprehensive written examination. In programs allowing the option, the student's graduate committee in the area of specialization will decide with the student whether to carry out (a), (b), and / or (c) above. A prospectus of the thesis, field study, internship, or creative project must be approved by the student's committee before work begins. The report on the thesis, field study, internship, or creative project must conform to standards described in thesis regulations which are available in the Office of Graduate Studies and Research.

## Thesis

A thesis is a written study prepared by the student that demonstrates her or his ability to conduct original, independent research. The thesis topic must be approved in its preliminary stages by the student's graduate committee, the chair of the department of specialization or graduate coordinator, and the dean of Graduate Studies and Research. A form for certifying thesis completion is available in the Office of Graduate Studies and Research.

The thesis must be prepared according to standards of format, style, typeface, and paper quality, as outlined in thesis regulations available at the Office of Graduate Studies and Research. The graduate student is expected to work closely with the thesis advisor and thesis committee in the conception, design, and execution of the thesis. Working with the thesis committee chair, a graduate student will submit copies of the thesis to the committee at least two full weeks in advance of the final examination. Draft copy must be provided with sufficient lead time to allow faculty to review and critique it. It is very important that the student maintain close contact with committee members during thesis preparation. At the appointed time, the student will defend her or his work before the committee. The thesis defense grade will be assigned as either satisfactory or unsatisfactory. Jointly written theses are not permitted.

Approval of a thesis is a two-stage process. First, if successfully defended, it must receive the written approval of all committee members. Second, it must be reviewed and approved by the graduate office. If approved by the thesis committee, a thesis approval page and the thesis grade report should be signed by all members of the committee after required corrections, if any, are made. Once the graduate student has prepared the thesis in the format required by the graduate office, and has double checked to insure that all style and format rules have been observed, he or she should submit the thesis for review to the office.

The thesis must include an abstract (150 words or less) described in thesis regulations available in the Office of Graduate Studies and Research. The original and two copies of the completed approved thesis, with pages in proper order, must be submitted to the graduate office and accepted for binding before the student will be cleared for graduation. An additional copy of the abstract, printed on thesis-quality paper, must also be submitted to the graduate office.

The graduate office and the student share in the cost of binding the thesis. Each student pays a binding fee that helps defray the cost of binding the original and two copies of the thesis. Thesis binding fees are $\$ 75$ for three copies. Two copies are deposited in the library and one copy is given to the student. Students not wishing to retain a copy for themselves should submit the original copy plus one other in accordance with the above instructions. He or she will be assessed $\$ 50$ in binding fees.

Graduate students whose research involves human subjects or vertebrate animals may not commence research without first obtaining clearance to do so from the institutional review board. (See Institutional Review Board or Animal Care and Use Committee below.)

## 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), our 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.

## Animal Care and Use Committee

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 in the Office of Graduate Studies and Research or online at www.cwu.edu / ~masters.

## Project

Several departments allow a student to complete a project rather than a thesis. This is done in instances where the faculty and student determine that a special project, rather than a master's thesis, will strengthen the student's learning experience. Typically, projects are completed in professional programs.

## Completing Degree Requirements

## Final Folder Evaluation

All graduate students must contact the Office of Graduate Studies and Research for a final review of their file no later than the first week of their anticipated final quarter as soon as they have registered. At this evaluation, candidacy requirements, grade point average, course of study completion, and examination scheduling will be processed. Advancement to candidacy and final examination scheduling will not be permitted except during the final quarter.

## Final Examination

After the student has registered and been cleared to proceed toward completion through a folder check by the graduate office, he or she must pass oral and / or written examinations covering courses, seminars and thesis, or such other examination as necessary to complete degree requirements. A permission form authorizing the final examination will be issued by the graduate office 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.

At least two weeks prior to the final examination, four (4) copies of a "brief" must be submitted to the Office of Graduate Studies and Research. A sample brief is included in the thesis/non-thesis guidelines available at the graduate office or online at the graduate studies Web page, www.cwu.edu / ~masters. Copies will be distributed to the student's graduate faculty committee prior to the examination. One copy will remain in the student's file.

For the final examination, an outside representative of the graduate faculty will routinely be assigned by the Office of Graduate Studies and Research.

## 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 insure degree conferral if requirements are met.

The permit for scheduling the final examination, approved by the committee, must be filed in the Office of Graduate Studies and Research 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., MondayFriday, 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 Graduate Studies and Research 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 exam to be retaken.

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 (two weeks before the last day of finals) and who does complete all the requirements by the last day of that quarter, will receive the degree the following quarter without further registration.

## Advancement to Candidacy

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

1. Completion of the course requirements as set forth in the course of study;
2. Completion of the thesis or thesis option where appropriate;
3. Attainment of a cumulative grade point average of 3.0 (B) or better for all courses taken since admission to the graduate program and all work included in the course of study;
4. Completion of additional departmental requirements, e.g., proficiency in a foreign language;
5. Fulfillment of the statute of time limitation (six years) requirement; and
6. Passing of an oral and / or written examination covering courses, seminars, and thesis, or other examinations deemed necessary by the major department.

## Graduation

Application for a master's degree must be submitted to the Office 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 binding and degree fees. The fee for the master's degree is $\$ 14$ plus a $\$ 1$ student benefit fee. 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.

Candidates for the master's degree
are encouraged to participate in the commencement exercises following the completion of degree requirements. See the academic calendar in the front of this catalog for deadline dates to arrange for regalia.

## 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.

## Graduate Certificate Programs

In addition to the degree programs outlined above, the following graduate certificate programs are offered at the university. Application forms and further information can be obtained from the office of the associate dean of the College of Education and Professional Studies located in Black Hall, room 228. The Certification Office is open daily, Monday through Friday, from 8 a.m. to 5 p.m. General inquiries and information regarding the fifth-year program and teacher certification should be addressed to the certification director. The telephone number is 509-963-2661.

Renewal of Residency Certificate
Fifth Year of Study for Continuing or
Professional Certificate
Endorsement-only Program
Continuing Principal's Certificate
Residency Program Administrator
Continuing Program Administrator
Educational Staff Associate Certificate:
School Counselor
School Psychologist

## Renewal of the Residency Teaching Certificate

The residency teaching certificate is valid for five years from the date of issuance and may be renewed once for a two-year period when the following requirements are met:

1. The individual completes a residency certificate renewal application which may be secured from the office of the associate dean of the College of Education and Professional Studies.
2. The individual has completed all coursework requirements for the continuing certificate or has completed at least 15 quarter hours of coursework since last certificate was issued.

## Continuing Certificate

Candidates for the continuing certificate must meet the following requirements:

1. Have a valid residency teaching certificate
2. Verify at least one year of full-time teaching experience
3. Complete 45 credits of upper-division ( 300 level or higher) coursework, including courses in abuse, staff development and
supervision, research and evaluation, and referral agencies.
To maintain the continuing certificate, each person must complete 150 clock hours of approved in-service education and / or 15 college or university credits every five years.

## Professional Certificate

In addition to meeting requirements for the residency teaching certificate, candidates for the professional certificate must meet the following:

1. Completion of provisional status employment in a public or an approved private school (two years contracted teaching in the same district)
2. Completion of an approved performancebased college/ university professional certificate program. Please contact the office of the associate dean, College of Education and Professional Studies for application and information
3. Completion of coursework in issues of abuse.
To maintain the professional teaching certificate, an individual must complete 150 clock hours of in-service training every five years. Some of the clock hours must relate to one of the six state salary criteria and some must relate to one of the three standards for the professional teaching certificate.

## Endorsement-only Program

CWU's Endorsement-only Program is available to certified teachers who hold the Washington State residency, or continuing teaching certificate and who wish to add a teaching endorsement to their certificate. Teachers interested in obtaining an endorsement from CWU should submit an application (available online at www.cwu. edu / ~cert) and official transcripts. A credit evaluation of the applicant's records will be completed by the Certification Office, routed to the endorsing department for approval, and then forwarded to the applicant.

## School Administration Certificates

Central has been authorized by the State Board of Education to recommend issuance of residency and continuing principal's certificates valid for service as vice principal, assistant principal, or principal of elementary, middle, junior high, and / or high schools. The university is also authorized to recommend issuance of the program administrator certificate as director of instructional leadership or special education. These programs of preparation include formal study and internship experiences. (See Master of Education, Administration, Special Education, or Instructional Leadership.)

Requirements for the residency certificate include:

1. Possession of a valid teacher or educational staff associate (whichever is appropriate) certificate
2. Completion of the master's degree
3. If the master's degree is already earned from an accredited institution, please check with the school administration program director regarding program requirements
4. Three years of successful, contracted teaching experience in a state-approved $\mathrm{K}-12$ setting is required
5. One academic year as an administrative intern at the level for which certification is being sought.
Requirements for the continuing certificate include:
6. Three years of full-time experience as a practicing administrator (for continuing principal certificate, experience must be as principal, vice principal, or assistant principal)
7. Completion of all requirements for residency certificate.

Persons seeking further information are invited to correspond with the school administration program director in the education department.

## Special Certificates

Preparation for special certificates, authorized by the State Board of Education, is available at Central. Programs leading to the educational staff associate certificate are available in school counseling and school psychology.

Programs leading to certification in specific vocational areas are available in business education, marketing education, diversified occupation, family and consumer sciences, and trade and industrial (including health occupations and technical education.) For information regarding these programs, please contact the specific departments.

Applications for the school counselor or school psychologist ESA certificate can be
obtained from the psychology department and are processed through the office of the associate dean of the College of Education and Professional Studies.

Those interested in other special certificates should contact the Washington State Director of Certification, Office of the Superintendent of Public Instruction, Old Capital Building, P.O. Box 47200, Olympia, WA 98504-7200.

## Master's Degree and Certification

Please note that a graduate student enrolled in a master's degree program does not necessarily satisfy all certification requirements by completing the master's degree. Students pursuing master's degrees in combination with certificate programs should maintain contact with the department of their specialization and with the office of the director of certification to ensure that all requirements are met.


## DEGREES OFFERED

Departments, degrees offered, and courses are listed by college in alphabetical order in this section. Courses numbered 596 designate individual study courses and are available for registration by prior arrangement with the course instructor and approval of the department chair.

The number in parentheses following the course title indicates the amount of credit each course carries. Variable credit courses include the minimum and maximum number of the credits within parentheses.

Not all of the courses are offered every quarter. Final confirmation of courses to be offered, information on new courses and programs, as well as a list of hours, instructor, titles of courses and places of class meetings, is available online in Safari which can be accessed through the CWU home page at www.cwu.edu. A registration handbook is available at Registrar Services or your university center office. This book will assist you in navigating through Safari

CWU offers the following master's degrees:

## College of Arts and Humanities

Art Department
Master of Arts
Master of Fine Arts

## English Department

Master of Arts English (Literature)
Master of Arts English (TESOL)

## History Department

Master of Arts History
Music Department
Master of Music

## Theatre Department

Master of Arts Theatre
Theatre Studies Specialization Theatre Production Specialization

## College of Business

Accounting Department
Master of Professional Accountancy


## College of Education and

 Professional StudiesAdvanced Programs Department
Master of Education School Administration General School Administration Option
Master of Education Instructional Leadership

Educational Foundations and Curriculum
Department
Master of Education Master Teacher

Family and Consumer Sciences Department
Master of Science Family and Consumer Sciences

Family Studies Specialization
Career and Technical Education Specialization

Industrial and Engineering Technology Department
Master of Science Engineering Technology
Language, Literacy, and Special Education Department
Master of Education Special Education
Master of Education Reading Specialist
Nutrition, Exercise, and Health Sciences Department
Master of Science Exercise Science
Master of Science Nutrition
Physical Education and School and Public Health Department
Master of Science Health and Physical Education

Athletic Administration Specialization

## College of the Sciences

Biological Sciences Department
Master of Science Biology
Biomedical Sciences Specialization
Chemistry Department
Master of Science Chemistry
Geological Sciences Department Master of Sciences Geological Sciences

Mathematics Department
Master of Arts for Teachers, Mathematics
Psychology Department
Master of Education School Counseling Master of Education in School Psychology
Master of Science Experimental Psychology General Experimental Psychology Specialization

Applied Behavior Analysis Specialization Master of Science Mental Health Counseling

## Interdisciplinary and Individual Studies <br> Individual Studies <br> Master of Arts <br> Master of Education <br> Master of Science

Primate Behavior and Ecology
Master of Science Primate Behavior
Resource Management
Master of Science Resource Management

## COLLEGE OF ARTS AND HUMANITIES

## ART DEPARTMENT

Ellensburg
Randall Hall, room 100
509-963-2665
Fax: 509-963-1918
www.cwu.edu / ~art
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Liahana Armstrong, PhD

## Professors

Glen Bach, MFA, graphic design
Michael Chinn, MFA, wood design, design
Keith Lewis, MFA, jewelry and metalsmithing, design

## Associate Professors

Maya Chachava, MFA, painting, drawing
Shari Stoddard, PhD, art education

## Assistant Professors

Paula Airth, MFA, graphic design
Alex Emmons, MFA, photography and digital imaging
Stephen Robison, MFA, ceramics

## Staff

Jeff Cleveland, department maintenance
Heather Horn Johnson, gallery manager
Sharon Jonassen, secretary

## Department Information

The art department offers two graduate degree programs for students wishing to study visual art beyond the baccalaureate level. Each degree requires that candidates complete coursework in art concepts and criticism, art history, studio area of concentration, electives, and a creative thesis project.

The 45-credit master of arts (MA) program offers students advanced study in the various studio areas. The MA is intended for students who desire graduate-level training in art and helps prepare them for various arts-related careers and for further advanced studies in art.

The 90-credit master of fine arts (MFA) is a terminal degree program 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-artsrelated vocations. The following studio art concentrations are offered at Central:

Ceramics
Drawing
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 regulations governing admission to graduate degree programs, the following specific regulations apply to both the MA and MFA Programs:
A. 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.
B. Applicants are required to submit examples of their work in the form of 35 mm slides or other appropriate media. 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 art 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, "General Master's Degree Regulations."

Residence 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 nonstudio coursework. MFA/MA 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 art department.

Studio Project. In order to successfully complete ART 700, Studio Project, the MFA / MA 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.

## Master of Arts in Art <br> Program Coordinator <br> Randall Hall, room 100 <br> Required Courses <br> ART 589 - Art Concepts and Criticism ..... 3 <br> Art History, 400 level and above. . . . . . . . . . . 4 <br> Major area of concentration in Art . . . . . .16-24 <br> ART 700 - Master's Thesis, Project <br> Study and / or Examination <br> Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8-12

Total Credits Required: 45

## Master of Fine Arts in Art <br> Program Coordinator <br> Randall Hall, room 100 <br> Required Courses <br> ART 589 - Art Concepts and Criticism . . . . . 3 <br> Art History, 400 level and above. . . . . . . . . . 12 <br> Major studio concentration . . . . . . . . . . . 40-56 <br> Electives outside major studio concentration. . 12-24 <br> ART 700 - Master's Thesis, Project <br> Study and/or Examination .

Total Credits Required: 90

## Art Courses

ART 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
ART 525. Advanced Studies in Photography (2-5). Prerequisite: ART 425 or equivalent. May be repeated for credit.
ART 541. Advanced Studies in Wood (2-5). Prerequisite: ART 441 or equivalent. May be repeated for credit.
ART 546. Advanced Studies in Jewelry and Metalsmithing (2-5). Independent, advanced exploration of jewelry or metalwork. Emphasis on conceptual strength, growth, and technical mastery. Prerequisite: ART 446 or equivalent. May be repeated for credit.
ART 550. Advanced Studies in Drawing (25). Prerequisite: ART 450 or equivalent. May be repeated for credit.
ART 556. History of Eastern Art (4). A survey of the architecture, sculpture, painting, and the crafts of India, Indonesia, China, and Japan. Prerequisite: permission of the instructor. ART 556 and ART 456 are equivalent courses. Students may not receive credit for both.
ART 560. Advanced Studies in Painting (2-5). Prerequisite: ART 460 or equivalent. May be repeated for credit.
ART 565. Advanced Studies in Ceramics (25). Prerequisite: ART 465 or equivalent. May be repeated for credit.
ART 580. Advanced Studies in Sculpture (2-
5). Prerequisite: ART 480 or equivalent. May be repeated for credit.
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). Prerequisite: permission of instructor. May be repeated.
ART 598. Special Topics (1-6).
ART 599. Seminar (1-5). May be repeated.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for credit not to exceed 6 credits for MA degree and 12 credits for MFA degree.

## COMMUNICATION DEPARTMENT

Ellensburg
Bouillon Hall, room 232A

509-963-1066
Fax: 509-963-1060
www.cwu.edu / ~comm
See Web site for how the communication programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Lois Breedlove, MA

## Professors

Philip Backlund, PhD, communication studies James L. Gaudino, PhD, public relations Michael R. Ogden, PhD, journalism, film and video studies

## Associate Professors

Lois J. Breedlove, MA, journalism
Robert C. Fordan, MA, journalism

## Assistant Professor

Xiaodong Kuang, PhD, public relations, advertising
Cesar Garcia, PhD, public relations Steve Jackson, MA, journalism, convergent media
Cynthia Mitchell, MBA, journalism Maria Sanders, MA, film and video studies


Lecturers
Patrick Deffenbaugh, BA, advertising
Katherine Horowitz, MA, communication studies
Toby Staab, MA, journalism

## Staff

Kristina Owens, secretary senior
Michele Graaff, Bridges administrative assistant
Veronica Gomez-Vilchis, Bridges project coordinator
Michael Richard, Observer business manager

## Department Information

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

## Communication Courses

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. Prerequisite: graduate status or permission of the instructor.
COM 540. Corporate Media Management (4). This course instructs students in the methods of media management for corporate media production. Students in this course will take the role of "above-theline" producers, and will learn research, writing, and client handling. Prerequisite: graduate status or permission of the instructor.
COM 556. Convergent Gaming Research (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. Prerequisite: graduate status or permission of the instructor.
COM 569. Media and Cultural Studies (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. Prerequisite: graduate status or permission of the instructor. COM 569 and COM 469 are cross-listed courses. Students may not receive credit for both.
COM 590. Cooperative Education. An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student-learning plan, cooperating employer supervision, and faculty coordination. Prior approval required. May be repeated for up to 8 credits. Grade will be S or U.
COM 598. Special Topics (1-5).
COM 599. Seminar (1-5). May be repeated.

## ENGLISH <br> DEPARTMENT

Ellensburg
Language and Literature Building, room 423

## 509-963-1546

Fax: 509-963-1561
www.cwu.edu / ~english
See the English department Web site for additional information on undergraduate and graduate education and career opportunities in English.

## Faculty and Staff

Chair
George Drake, PhD

## Professors

Laila Abdalla, PhD, English Medieval and Renaissance literature
Liahna Armstrong, PhD, American literature, popular culture, film
Patsy Callaghan, DA, rhetoric, world literature, English education
Toni Culjak, PhD, American, world and multicultural literature, film
Bobby Cummings, PhD, rhetoric, English education, computer composition
Loretta Gray, PhD, applied linguistics, composition, TESOL
Charles Xingzhong Li, PhD, linguistics, TESOL, linguistic approaches to literature
Terry Martin, PhD, English education, women's literature
Steven Olson, PhD, American literature, film
Paulus Pimomo, PhD, British literature, post colonial studies
Joseph Powell, MFA, creative writing, modern poetry
Sura Rath, PhD, literary theory, literature of the South
Gerald J. Stacy, PhD, English Renaissance literature
Christine A. Sutphin, PhD, Victorian literature, English novel, women's literature

## Associate Professors

George Drake, PhD, British literature, English novel
Christopher Schedler, PhD, American and multicultural literature
Katharine Whitcomb, MFA, creative writing

## Assistant Professors

Virginia Mack, PhD, general education, Irish literature
Lisa Norris, MFA, creative writing

## Emeritus Professors

Philip B. Garrison, MA, non-fiction, poetry writing, world, and Chicano literature
Mark W. Halperin, MFA, poetry writing, folk literature, modern poetry
John L. Vifian, PhD 18th-century literature, English novel

Senior Lecturer
Lila Harper, PhD

## Staff

Theresa Stevens, secretary supervisor Jo Richards, office assistant II

## 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).

## English Literature, MA <br> 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 regulations 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 45 credits. At least 30 credits must be at the graduate level in English. Up to 12 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 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 four credits of English 596, Individual Study, with the chair of their exam committee.

## Required Courses

ENG 512 - Introduction to English
Graduate Study . . . . . . . . . . . . . . . . . . . . . .
ENG 514 - Advanced Studies in English Literature5

ENG 515 - Advanced Studies in American Literature
. 4

- Advanced Stud. ............................

ENG 517 - Advanced Studies in World Literature .4

ENG 518 - Advanced Literary and Critical Theory

## Complete one of the following two options:

Thesis /Project Option
Approved Electives (Includes two
400-level creative writing courses for
creative writing projects)
. 16
ENG 588 - Thesis/Project Colloquium ..... . 2
ENG 700 - Master's Thesis/Project (1-6) . . . . 6
Exam Option
Approved Electives
20
ENG 596 - Individual Studies (1-6). . . . . . . . . . 4
Total Credits: 45

## English: TESOL, MA <br> Master of Arts English (TESOL-Teaching English to Speakers of Other Languages)

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 corequisites 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

ENG 531 - Principles and Practices of TESOL

ENG 533 - Second Language Acquisition . . . 4
ENG 534 - Discourse Analysis . . . . . . . . . . . . 4
ENG 535 - Linguistic Approaches to
Literature . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ENG 536 - TESOL Research Colloquium ... 4
ENG 537 - Pedagogical Grammar . . . . . . . . . 4
ENG 592 - Practicum (1-5) . . . . . . . . . . . . . . . . 4
Department-approved electives . . . . . . . . . . . 7

# Complete one of the following options: 

Thesis Option<br>ENG 700 - Master's Thesis/Project (1-6) . . . . 6

Exam Option
ENG 596 - Individual Study (1-6)
Department-approved Elective. . . . . . . . . . . . 4
Total Credits: 45

## English Courses

ENG 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.
ENG 510. Teaching First-year Composition (2). The study and practice of the teaching of composition. Associated classroom experience as a teaching assistant or other experience as approved by the department. Prerequisite: permission of instructor. May be repeated. Does not count toward the MA degree. Grade will be S or U .
ENG 512. Introduction to English Graduate Study (5). The philosophy of literature and research methods. Required of all master of arts candidates.
ENG 513. Composition Theory (4). Focuses on research, theories, and practical issues relevant to the teaching of composition.
ENG 514. Advanced Studies in English Literature (4). Prerequisite ENG 512. May be repeated for credit under a different subtitle.
ENG 515. Advanced Studies in American Literature (4). Prerequisite ENG 512. May be repeated for credit under a different subtitle.
ENG 517. Advanced Studies in World Literature (4). Prerequisite: ENG 512. May be repeated for credit under a different subtitle.
ENG 518. Advanced Literary and Critical Theory (4). Advanced study of the theory and practice of various critical perspectives and strategies as they inform the study of literary texts. Prerequisite: ENG 512.
ENG 531. Principles and Practices of TESOL (4). Focuses on research, theories, and approaches relevant to the teaching of English to speakers of other languages. Prerequisite: admission to the MA in English (TESOL) program or permission of the instructor.
ENG 532. Phonetics and Phonology (4). Study of English phonetics and phonology as well as pronunciation pedagogy. Prerequisite: admission to MA, English, TESOL program, or permission of the instructor.
ENG 533. Second Language Acquisition (4). Integrated historical and contemporary views on language and non-language factors affecting second-language acquisition and on methodology in secondlanguage teaching and learning. Pre or
corequisites: ENG 532 and admission to MA, English (TESOL) program, or permission of the instructor.
ENG 534. Discourse Analysis (4). Study of discourse theory and research methodology.
ENG 535. Linguistic Approaches to Literature (4). Linguistic perspectives and approaches to literature, with an emphasis on poetry and prose. Prerequisite: admission to the MA in English (TESOL) program or permission of the instructor.
ENG 536. TESOL Research Colloquium
(4). Intensive guided research on TESOL topics. Prerequisite: admission to MA in English, TESOL program, or permission of instructor. Grade will be S or U .
ENG 537. Pedagogical Grammar (4). Study of English grammar and approaches to grammar instruction. Prerequisite: admission to MA English (TESOL) program or permission of instructor.
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 inservice workshops. Prerequisite: permission of CWWP director. Participants must register concurrently for EDCS 581.
ENG 581. CWWP II: Applied Writing Research (6). CWWP follow-up course in which teachers design, implement, document, and present the results of classroom-based research projects. Prerequisite: permission of CWWP director. Students must take concurrently with ENG 580.

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. Prerequisite: ENG 512 and graduate GPA of 3.7 or better.

ENG 591. Workshop (1-6).
ENG 592. Practicum (1-5). Supervised field experience in literacy education or teaching English as a second language/foreign language. May be repeated with consent of instructor. Grade will be S or U .
ENG 595. Graduate Research (2-10). For students doing advanced research, writing, and study. Prerequisite: ENG 512 and permission of department chair. Students using faculty time and departmental resources for thesis work must be registered for ENG 595 or 700 . May be repeated for credit. May not be included in the Course of Study for the master's degree. Grade will be $S$ or $U$.
ENG 596. Individual Study (1-6).
Prerequisite: permission of instructor.
ENG 598. Special Topics (1-6).
ENG 599. Seminar (1-5). May be repeated for credit under a different subtitle.
ENG 700. Master's Thesis/Project (1-6). Designed to credit and record supervised study for the master's thesis/project. Prerequisite: permission of chair of
student's thesis/project committee. Grade will be either $S$ or $U$. May be repeated for a total of 6 credits.

## FOREIGN <br> LANGUAGES DEPARTMENT

Ellensburg
Language and Literature Building, room 102
509-963-1218
Fax: 509-963-1959
www.cwu.edu/~forlang
See Web site for how this programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Joshua S. Nelson, PhD

## Professors

Rodney Bransdorfer, PhD, Spanish, applied linguistics
Natalie Lefkowitz, PhD, Spanish, applied linguistics
Stella Moreno, PhD, Spanish
Joshua Nelson, PhD, Japanese

## Associate Professors

Nathalie Kasselis-Smith, PhD, Spanish
Dieter Romboy, PhD, German

## Assistant Professors

Mei Chun, PhD, Chinese
Dinara Georgeoliani, PhD, Russian
Alejandro Lee, PhD, Spanish
Eric Mayer, PhD, Spanish

## Emeritus Faculty

Elbert E. Bilyeu, PhD, Spanish
Eva-Marie Carne, PhD, German
Ilda Marie Easterling, PhD, French
Kelton W. Knight, PhD , French
M. Nancy Lester, PhD, Spanish

Carlos E. Martin, PhD, Spanish
Christian Immo Schneider, PhD, German
Rosco N. Tolman, PhD, Spanish

## Lecturers

Steven L. Cook, BA, lecturer
Mariko Okada-Collins, MA, lecturer

## Staff

Lindsay Groce, secretary senior

## Department Information

The Department of Foreign Languages does not offer any graduate degrees.

## Foreign Languages Course

FNLA 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.

## Spanish Course

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.

## HISTORY DEPARTMENT

Ellensburg
Language and Literature Bldg., room 100
509-963-1655
Fax: 509-963-1654
www.cwu.edu / ~history
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
Karen J. Blair, PhD

## Professors

Karen J. Blair, PhD, 20th-century U.S., women's history
Roxanne Easley, PhD, Russia, Eastern Europe
Marji Morgan, PhD, 19th-century British social and cultural history

## Associate Professors

James Cook, PhD, East Asia
Michael Ervin, PhD, Latin American history
Daniel Herman, PhD, U.S. pre-1877
Jason Knirck, PhD, Britain/British Empire, Western Europe
Stephen Moore, PhD, Pacific Northwest,
foreign relations, social studies education

## Assistant Professors

Maurice Amutabi, PhD, Africa, Middle East

## Lecturers

Michael Buerre, MA
Megan McLean, MA
Kenneth Munsell, MA
Jalynn Padilla, PhD

## Emeritus Professors

Beverly Heckart, PhD, Germany, Europe 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; and 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 Web site, 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.
All three options require the following courses:
HIST 511 - Historiography . . . . . . . . . . . . . . 5
HIST 700 - Master's Thesis, Project Study
and/or Examination ......................
Students must take 15 credits of the
following: . . . . . . . . . . . . . . . . . . . . . . . . . . 1
HIST 512 - History Graduate Readings Seminar (5)
HIST 515 - History Graduate Research Seminar (5)
Department-approved electives from 500-level courses in history . . . . . . .
Department-approved electives fro
400-500-level courses in history or other approved fields (courses must pertain to student's thesis). . . . . . . . . . . . . 9

Total Credits: 45

## 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
Africa and the Black Diaspora
Precolonial Africa
Colonial Africa
Contemporary Africa
Middle East since 1914
Middle East to 1914
Ming/Qing China
20th-century China
Modern Japan
Modern Southeast Asia
Urban History
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, a historiographical review, including a statement of your work's place within it, and a 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 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 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 thirty 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 thirty 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 fifteen 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.

## History Courses

HIST 511. Historiography (5).
HIST 512. History Graduate Readings Seminar (5).
HIST 515. History Graduate Research Seminar (5). Formerly HIST 515.1, 515.2, and 515.3.
HIST 522. British Isles to 1763 (5). The British Isles from Roman times to the conclusion of the Seven Year War. Course will cover the rise of the English monarchy, the Renaissance and Reformation in England, and the beginnings of the British Empire. HIST 522 and HIST 422 are cross listed courses. Students may not receive credit for both.
HIST 523. The Irish Revolution (5). History and historigraphy 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 523 and HIST 423 are cross listed courses. Students may not receive credit for both.
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 equivalent courses. Students may not receive credit for both.
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 526 is a graduate component of HIST 426. Students may not receive credit for both.
HIST 527. Modern Britain and the Empire since 1688 (5). History of Britain and the Empire since the Glorious Revolution. Topics include growth of the Empire, industrialization, political reform, world wars, decolonization, and post-war social changes. HIST 427 and HIST 527 are equivalent courses. Students may not receive credit for both.
HIST 531. Africa: The Crisis of Nation Building (5). An in-depth, multidisciplinary approach to the present political and socioeconomic issues, problems, and tensions in selected areas of Africa. HIST 531 and HIST 431 are equivalent courses. Students may not receive credit for both.
HIST 533. Selected Topics in African History (5). Specific matter will vary but emphasis will be on the social and cultural development of African states since precolonial times. HIST 533 and HIST 433 are equivalent courses. Students may not receive credit for both.
HIST 535. History of South Africa (5). This course examines the history of South Africa from the earliest time to the present. It looks at pre-colonial African states, colonialism, apartheid and the triumph of African nationalism under the ANC and Nelson

Mandela. HIST 535 is the graduate version of HIST 435. Students may not receive credit for both.
HIST 537. History of Islamic Traditions (5). This course will cover the history of Islam and Muslim societies around the world since 1700 using a global perspective. The course will examine Islamic developments in Asia, Africa, Europe, and North America. HIST 537 is the graduate version of HIST 437; may not receive credit for both.
HIST 538. Conquests and Compromises: American Indian History since 1492 (5). Discussion and lecture course on interactions between Native Americans and Europeans in North America since the arrival of Columbus. HIST 438 and HIST 538 are equivalent courses. Students may not receive credit for both.
HIST 540. The American Revolution (5). Causes and consequences of the American Revolution, 1688-1789. HIST 540 is a graduate component of HIST 440. Students may not receive credit for more than one course.
HIST 543. The West in American History
(3-5). Exploration, territorial acquisition, patterns of settlement, economic development, and the influence of the frontier on American institutions. HIST 543 and HIST 443 are equivalent courses. Students may not receive credit for both.
HIST 544. Sectionalism, Civil War, and Reconstruction (3-5). 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 544 and HIST 444 are equivalent courses. Students may not receive credit for both.
HIST 549. History of Women and the West
(5). Women in the western United States, with emphasis on the 19th and 20th centuries, myths and stereotypes, women's work, community roles, and class and racial/ethnic differences. HIST 549 and HIST 449 are equivalent courses. Students may not receive credit for both.
HIST 550. Exploring U.S. Cultural History
(5). Thematic approach to 19th-century cultural transformations in the U.S. Selected topics include mesmerism, utopias, true womanhood, women's rights, slave spirituals, confidence men, and gold rushes. HIST 550 and History 450 are equivalent courses. Students may not receive credit for both.
HIST 551. 20th-century U.S. 1896-1919 (3-5). Imperialism, progressivism, and World War I. HIST 451 and HIST 551 are equivalent courses. Students may not receive credit for both.
HIST 552. 20th Century U.S. 1919-1945 (3-5).
Prosperity and depression, the New Deal and its implications, and World War II's origins and conclusion. HIST 552 and HIST 452 are equivalent courses. Students may not receive credit for both.
HIST 553. 20th Century U.S. 1945 to the

Present (3-5). Cold War, sedentary 50s, rebellious 60s, and the Watergate era. HIST 553 and HIST 453 are equivalent courses. Students may not receive credit for both.
HIST 554. American Environmental History (5). Environmental values and practices of the diverse populations of America. HIST 554 and HIST 454 are equivalent courses. Students will be given credit for only one of the three courses.
HIST 562. History of American Foreign Relations, 1900-1941 (3-5). From the Spanish-American War to Pearl Harbor. HIST 462 and HIST 562 are equivalent courses. Students may not receive credit for both.
HIST 563. History of American Foreign Relations Since 1941 (3-5). From Pearl Harbor to the present. HIST 563 and HIST 463 are equivalent courses. Students may not receive credit for both.
HIST 564. Latin American Revolutions (5). This course compares and contrasts the causes, courses, and consequences of the Mexican Revolution (1910-40), the Cuban Revolution (1959-present), the Chilean Revolution (1970-73), and the Nicaraguan Revolution (1979-89). HIST 464 and HIST 564 are equivalent courses. Students may not receive credit for both.
HIST 565. History of the People's Republic of China (5). Evaluates the historical record of the Chinese Communists in power since the establishment of the People's Republic of China in 1949. HIST 565 and HIST 465 are equivalent courses. Students may not receive credit for both.
HIST 569. History of Russian and Soviet Women (5). Examination of the social status and cultural representations of women in Russia and the Soviet Union from the 17th century to the present. HIST 569 is the graduate version of HIST 469. Students may not receive credit for both.
HIST 572. German History since 1815 (3-5). A political, socio-economic, and intellectual study of Germany with special attention to the causes, progress, and aftermath of the National Socialist State. HIST 572 and HIST 472 are equivalent courses. Students may not receive credit for both.
HIST 573. Russia to 1881 (3-5). The political, social, economic, and cultural development of Russia from ancient times to the assassination of Alexander II. HIST 573 and HIST 473 are equivalent courses. Students may not receive credit for both.
HIST 574. Russia Since 1881 (3-5). The political, economic, social, and cultural history of Russia and the Soviet Union since 1881. HIST 574 and HIST 474 are equivalent courses. Students may not receive credit for both.
HIST 576. History of Modern East Europe (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 576 and HIST 476 are equivalent courses. Students may not receive credit for both. HIST 576 and HIST 476 are equivalent courses. Students may not receive credit for both.
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 and HIST 478/578 are equivalent courses. Student may not receive credit for more than one.
HIST 581. Understanding History (3-5). Analysis of the nature of history, of the way historians reason, and of the search for meaning in history.
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 583 and HIST 483 are equivalent courses. Students may not receive credit for both.
HIST 584. Modern Japan (3-5). The recent historical development of Japan beginning with the collapse of the Tokugawa Shogunate and the resumption of foreign contacts in the mid-19th century. Emphasis is given to the modernization process with its concomitant political, social, economic, and intellectual changes. HIST 584 and HIST 484 are equivalent courses. Students may not receive credit for both.
HIST 585. Comparative History (5). Course covers comparative themes in history, with comparisons across geographic, chronological, or disciplinary boundaries. Topics will rotate each quarter depending on instructor(s).
HIST 587. The Russian Revolutionary Movement (3-5). Origins and development of Russian radicalism through the Bolshevik Revolution of 1917. HIST 587 and HIST 487 are equivalent 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 588 and HIST 488 are equivalent 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. Prior approval required. May be repeated. Grade will be $S$ or U. HIST 590 and HIST 490 are equivalent courses.
HIST 591. Workshop (1-6). HIST 591 and HIST 491 are equivalent courses. Students may not receive credit for both.
HIST 595. Graduate Research (1-10). For students doing preliminary or ongoing thesis/project research. Prerequisite: permission of instructor. May be repeated
for credit. May not be included in the Course of Study for the master's degree. Grade will be S or U.
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. Prerequisite: permission of the instructor. May be repeated for credit.
HIST 598. Special Topics (1-6).
HIST 599. Seminar (1-5). May be repeated.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## MUSIC DEPARTMENT

Ellensburg
Music Building, room 144
509-963-1216
Fax: 509-963-1239
www.cwu.edu / ~music
See Web site for how music programs could be used for educational and career purposes.

## Chair

Todd Shiver, DMA

Associate Chair
Larry Gookin, MM

## Professors

Joseph Brooks, MM, clarinet, saxophone, woodwind methods
Chris Bruya, MM, jazz studies, theory, trumpet
Larry D. Gookin, MM, bands, low brass, music education, conducting
Peter Gries, DMA, piano, theory, counterpoint, analysis
Linda Marra, DMA, voice, opera, diction, literature, pedagogy
Carrie Rehkopf-Michel, MM, violin, chamber music, Kairos String Quartet
John Michel, MM, cello, chamber music, pedagogy, Kairos String Quartet
Hal Ott, DM, flute, history, literature
John F. Pickett, DM, piano, literature, pedagogy
Vijay Singh, MAT, jazz studies, choir, voice, music business
Jeffrey Snedeker, DMA, horn, brass methods, music history

## Associate Professors

Mark Babbitt, DMA, trombone, symphonic band, theory
Mark Goodenberger, MM, percussion
John Harbaugh, MME, trumpet, jazz studies
Bret Smith, PhD, music education, string pedagogy

## Assistant Professors

Gayla Blaisdell, PhD, voice, opera
Nikolas Caoile, DMA, orchestra, conducting
Mark Lane, MM, music education, band
Elaine Ross, PhD, theory, composition

## Lecturers

Tim Betts, MM. viola, theory, Kairos string quartet
James Durkee, MM, guitar, music literature
Brent Hages, BM, oboe
Jon Hamar, MM, string bass
Sidney Nesselroad, DMA, voice
Heather Netz, MM, violin, music
appreciation, Kairos string quartet
Curtis Peacock, MM, tuba, euphonium, history of jazz
Barbara Pickett, MM, piano, class piano
Maria Roditeleva-Wibe, PhD, piano, music history, theory
Florie Rothenberg, DMA, clarinet
Emelie Spencer, MM, voice

## Staff

Marcie Brown, program assistant
Star Heger, fiscal specialist
Allen Larsen, hall manager, audio tech., web manager
Harry Whitaker, piano technician
Tinja Wyman, office supervisor

## 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 shall 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. Performance-pedagogy
5. Music education

At least one-third of the total credit requirements must be in the major field, including six credits of thesis, one-third in other music courses, including three credits of ensemble and three credits of MUS 521 (Methods of Musical Research), and onethird 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. Students are expected to plan their program with a graduate advisor and committee.

After meeting minimum criteria for admission into a specific master's degree for each major, candidates must take diagnostic examinations in music history and music theory at the beginning of their first quarter of graduate study. In addition, nonperformance 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 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. Deficiencies in any of the above will be delineated to the student by the faculty along with recommendations for remediation. These recommendations may take the form of, but are not limited to, coursework, selected readings, and applied study. It is the candidate's responsibility to demonstrate the successful satisfaction of any deficiency. No Master of Music degree will be awarded until these appraisals have been passed. The Music Department recommends that the candidate attempt to satisfy these entrance appraisals at the earliest opportunity.

Admission Requirements: In addition to general regulations for admission to the master's program, 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. Admission into the institution does not assure admission into a music program Therefore, candidates should complete the specific requirements for major fields before arrival on campus, but no later than the end of the first quarter.
3. For admission requirements to each field, see section one in each field entry under specific requirements for major fields.

## General Requirements

Courses in major field, including
MUS 700, Thesis . . . . . . . . . . . .
Other studies in music, including three credits in ensemble courses . . . . .12-15
Elective courses in supportive areas . . . . 6-15
MUS 521 - Methods of Musical Research . . . 3
Total Credits: 45

## Specific Requirements for Major Fields:

## A. Composition

1. Admission to this program will be based upon an evaluation of appropriate compositions submitted by the student.
2. Courses in the major field: select from MUS 444, Canon and Fugue (3) MUS 522 - Advanced Orchestration (3) MUS 523 - Advanced Composition (3) MUS 545 - Modern Counterpoint (3) MUS 584 - Choral Composition and Arranging I (3)
MUS 599 - Seminar Credits: (1-5) MUS 613 - Graduate Seminar in Music: Music Theory / Composition (1-3)
3. Other studies in music should include a minimum of 3 credits in history or literature and 3 credits in theory.
4. The thesis (MUS 700, 6 credits) 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 (1-6)
B. Conducting
5. Admission to this program will require faculty evaluation of evidence of an appropriate level of musicianship, satisfied in one of the following ways:
a) A performance or conducting audition
b) A videotape of a performance directed by the applicant
c) Other evidence deemed appropriate in consultation with the evaluating committee
6. This program will require 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, Choir) during each quarter in residence. The students will be encouraged to work in all three areas whenever possible.
7. Courses in the major field: Select from MUS 440, Analytical Techniques II (3) MUS 540 - Choral Interpretation and Techniques (3) MUS 541 - Advanced Conducting (3) MUS 585 - Band Arranging II (3) MUS 599 - Seminar (1-5) MUS 615 - Graduate Seminar in Music: Conducting (1-3)
8. Other studies in music should include a minimum of three credits in history or literature and three credits in theory.
9. As a thesis (MUS 700, six credits) 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 (1-6)

## C. Performance

1. 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.
2. Courses in the major field: A minimum of 12 credits of major applied instruction, MUS 664, in addition to the six credits of thesis
study. Vocal performance majors must also have MUS 536 plus one year each of college level French and German. Other selections:
MUS 561 - Opera Workshop (1-2)
MUS 592 - Accompanying
Practicum (1-3)
MUS 614 - Graduate Seminar in Music: Performance (1-3)
3. Other studies in music should include a minimum of 3 credits in history or literature and 3 credits in theory.
4. As a thesis (MUS 700, 6 credits) 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 (1-6)

## D.Performance-Pedagogy

1. 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.
2. Courses in the major field:

A minimum of 12 credits of individual instruction, MUS 664, in addition to the six credits of thesis study; three credits in MUS 425. Other courses as advised. Additional requirements for vocal majors as in the performance major.
MUS 425, Studio Pedagogy (3)
MUS 664 - Major Applied Area
(Individual Instruction) (1, 2, 4)
3. Other studies in music should include a minimum of 3 credits in history or literature and 3 credits in theory.
4. As a thesis (MUS 700, 6 credits) the student will present either:
a) A demonstration project, research paper, or a covering paper based on the project, and one-half of a public recital
OR
b) A demonstration project, one-half of a public recital and a covering paper based on the works presented on the recital
OR
c) A research paper and one-half of a public recital
MUS 700 - Master's Thesis, Project Study and / or Examination (1-6)

## E. Music Education

1. Admission to this program will be based upon:
a) Evaluation of an undergraduate paper in the field of music education
b) 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)
c) 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 should include those that enable students to understand and evaluate research in music education: select from
MUS 425, Studio Pedagogy (3)
MUS 520 - Methods of Teaching
Theory (3)
MUS 582 - Instrumental Administration
Techniques (3)
MUS 583 - Supervision of Public
School Music (3)
MUS 599 - Seminar (1-5)
MUS 611 - Graduate Seminar in Music:
Music Education (1-3)
3. Other studies in music should include a minimum of three credits in history or literature and three credits in theory.
4. As a thesis (MUS 700, six credits), the student will present either
a) A research thesis

OR
b) A demonstration, analytical, or creative project, and a covering paper based on the project MUS 700 - Master's Thesis, Project Study and / or Examination (1-6)

## Final Examination

All students must pass a comprehensive final examination, oral, or written, and oral, based on their coursework and the thesis. Before the final examination can be scheduled, students must have:

1. Satisfied any recommendations made to correct deficiencies revealed by the diagnostic exams
2. Completed and submitted the written portion of the thesis
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 online at the department Web site: www.cwu.edu / ~music.

## Graduate Cognate in Music

A graduate cognate in music lends more coherence to the cluster of courses students take beyond those required for the degree and offers more meaningful recognition for extra courses taken beyond the degree requirements.

## 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:

1. Acceptance for admission to CWU graduate program
2. Acceptance for admission to a major graduate program in music (by audition/ interview)
3. 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

1. Students are allowed one graduate cognate in music.
2. 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.
3. Courses counted for the cognate must also be indicated on the course of study form, separate from general, specific and elective curricular requirements.
4. 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 take a minimum of 12 credits of courses approved by the cognate advisor in consultation with the major advisor, normally taken from those that apply to the corresponding major area, plus one 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
Performance
Performance-Pedagogy
Music Education
Music Theory
Music History
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 . . . . . . . . 3
MUS 600 - Graduate Cognate Project ...... 1

Approved Composition/Theory
Normally, courses would be chosen from:
MUS 444, Canon and Fugue (3)
MUS 522 - Advanced Orchestration (3)
MUS 523 - Advanced Composition (3)
MUS 547 - Electronic Music
Composition (3)
MUS 584 - Choral Composition and Arranging I (3)
MUS 610 - Graduate Seminar in Music: Composer (1-3)
MUS 613 - Graduate Seminar in Music: Music Theory / Composition (1-3)

## 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.
Orchestration or arranging courses . . . . . . . . 3
MUS 600 - Graduate Cognate Project . . . . . . 1
Approved Conducting classes .............. . . 9
Student must take 3 credits of MUS 541.
Normally, courses would be chosen from:
MUS 440, Analytical Techniques II (3)
MUS 522 - Advanced Orchestration (3)
MUS 540 - Choral Interpretation and Techniques (3)
MUS 541 - Advanced Conducting (3)
MUS 584 - Choral Composition and Arranging I (3)
MUS 615 - Graduate Seminar in Music: Conducting (1-3)

## 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 426, Studio Literature . 3
Ensemble
1
(Note: this credit is in addition to 3 credits required in all master's degrees)
MUS 600 - Graduate Cognate Project . . . . . . 1
MUS 664 - Major Applied Area (Individual Instruction) Credits: $(1,2,4)$

## Performance-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
Ensemble (Note: this credit is in addition to 3 credits required in all master's degrees)
MUS 600 - Graduate Cognate Project . . . . . . 1
MUS 664 - Major Applied Area (Individual Instruction) Credits: $(1,2,4)$

## 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 . . . . . . 1
Approved Music Education classes . . . . . . . 12
Normally, courses would be chosen from:
MUS 560 - Instructional Development in Music Education (3)
MUS 582 - Instrumental Administration Techniques (3)
MUS 611 - Graduate Seminar in Music: Music Education Credits: (1-3)

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 . . . . . . 1
Approved Music Theory classes. . . . . . . . . . 12
Note: These credits are in addition to three credits required in all master's degrees.
Normally, courses would be chosen from:
MUS 444, Canon and Fugue (3)
MUS 520 - Methods of Teaching Theory (3)
MUS 522 - Advanced Orchestration (3)
MUS 547 - Electronic Music Composition (3)
MUS 584 - Choral Composition and Arranging I (3)
MUS 610 - Graduate Seminar in Music: Composer Credits: (1-3)
MUS 613 - Graduate Seminar in Music: Music Theory/Composition (1-3)

## 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 . . . . . . 1
Approved Music History classes . . . . . . . . . 12
Normally courses would be chosen from:
MUS 570 - History of Vocal Art (3)
MUS 571 - History of Orchestra Music (3)
MUS 572 - Music in the Twentieth Century (3)
MUS 573 - History of Opera (3)
MUS 575 - History of Chamber Music (3)
MUS 576 - History of Choral Music (3)
MUS 579 - Aesthetics of Music (3)
MUS 610 - Graduate Seminar in Music: Composer (1-3)
MUS 612 - Graduate Seminar in Music: Music History / Literature (1-3)

## Music Courses

MUS 500. Professional Development (1-5).
Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
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. Prerequisite: permission of instructor. May
be repeated for up to 6 credits. For graduate students. Must attend all scheduled rehearsals and performances.
MUS 513. Flute Choir (1). Prerequisites: previous experience in flute performance and permission of instructor. May be repeated for credit. Two hours of rehearsal per week plus all scheduled rehearsals and performances. For graduate students.
MUS 514. Brass Choir (1). By permission of instructor. May be repeated for credit. For graduate students. See MUS 214 for description.
MUS 515. Chamber Orchestra (1). By permission of instructor. May be repeated for credit. For graduate students. See MUS 215 for description.
MUS 517. Chamber Music Ensemble (1). By permission of instructor. May be repeated for credit. One hour coaching plus two hours rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas $\mathrm{A}, \mathrm{C}-\mathrm{E}, \mathrm{H}, \mathrm{L}$.
MUS 520. Methods of Teaching Theory (3). Prerequisite: permission of instructor.
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. Prerequisite: MUS 422C or permission of instructor. May be repeated for credit.
MUS 523. Advanced Composition (3). Selected topics in composition. Prerequisite: MUS 420. May be repeated for credit.
MUS 529. Percussion Ensemble (1). By permission of instructor. May be repeated for credit. For graduate students. See MUS 229 for description.
MUS 532. Big Band (1). By permission of instructor. May be repeated for credit. For graduate students. See MUS 232 for description.
MUS 535. Laboratory Choir (1). By permission of instructor. May be repeated for credit. For graduate students. Two hours of rehearsal per week plus all scheduled rehearsals and performances.
MUS 536. Diction in Singing Foreign Languages (3). Italian, French, and German. Prerequisite: permission of instructor.
MUS 541. Advanced Conducting (3).
Emphasis upon the conducting of advanced literature in the major performance media. Prerequisite: MUS 342 or equivalent. May be repeated for credit.
MUS 547. Electronic Music Composition (3). Studies in electronic music with emphasis on compositional technique. Prerequisite: MUS 347.
MUS 558. Survey of Solo Vocal Literature
(3). All periods, performance, or listening. Background, stylistic traits and performance concepts of the Art Song. Prerequisite: permission of instructor.
MUS 561. Opera Workshop (1-2). A class
leading to the performance of scenes or single acts from opera. May be repeated for credit. By permission of instructor.
MUS 562. Opera Production (1-2). A class leading to performance of a complete opera. May be repeated for credit. By permission of instructor. MUS 562 and MUS 462 are equivalent courses. Students may not receive credit for both.
MUS 564. Major Applied Study (1, 2, 4). By permission of instructor. May be repeated for credit. One half-hour lesson per week for 2 credits; one hour lesson per week for 4 credits; one 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-H. Open to non-performance and non-performance pedagogy majors.
MUS 566. Wind Ensemble (1-2). May be repeated for credit. 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.
MUS 567. University Choir (1-2). May be repeated for credit. For graduate students. 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.
MUS 568. Chamber Choir (2). May be repeated for credit. See MUS 268 for complete description.
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 575. History of Chamber Music (3). Forms and styles from the late 16 th century to the present.
MUS 576. History of Choral Music (3). Forms and styles from medieval to modern.
MUS 577. Orchestra (1-2). May be repeated for credit. Open to all students proficient on orchestral instruments by permission of director. Five hours rehearsal per week plus all scheduled rehearsals and performances. Two credits normally offered during academic year and one credit if offered one term only during summer session. For graduate students.
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. May be repeated for credit. For graduate students.

MUS 592. Accompanying Practicum (1-3). May be repeated for credit. By assignment of instructor. Minimum three hours rehearsal weekly per credit plus performances. For graduate students.
MUS 595. Graduate Research (2). For students doing preliminary or continuing thesis/project research. Prerequisite: permission of the instructor. May be repeated once for credit. May not be included in the Course of Study or counted toward the master's degree.
MUS 596. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
MUS 598. Special Topics (1-6).
MUS 599. Seminar (1-5). May be repeated.
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.
MUS 610. Graduate Seminar in Music: Composer (1-3). Study of a particular composer's life and works. Prerequisite: graduate standing and permission of instructor. Offered according to needs of students and faculty availability. May be repeated for up to 3 credits.
MUS 611. Graduate Seminar in Music: Music Education (1-3). Seminar in Music Education, offered according to needs of students and faculty availability. Prerequisites: graduate standing and permission of instructor. May be repeated for up to 3 credits.
MUS 612. Graduate Seminar in Music: Music History/Literature (1-3). Seminar in Music History and Literature, offered according to needs of students and faculty availability. Prerequisites: graduate standing and permission of instructor. May be repeated for up to 3 credits.
MUS 613. Graduate Seminar in Music: Music Theory/Composition (1-3). Seminar in Music Theory and / or Composition, offered according to needs of students and faculty availability. Prerequisites: graduate standing and permission of instructor. May be repeated for up to 3 credits.
MUS 614. Graduate Seminar in Music: Performance (1-3). Seminar in Performance Studies, offered according to needs of students and faculty availability. May not be substituted for applied study. Prerequisites: graduate standing and permission of instructor. May be repeated for up to 3 credits.
MUS 615. Graduate Seminar in Music: Conducting (1-3). Seminar in Conducting, offered according to needs of students and faculty availability. Prerequisites: graduate standing and permission of instructor. May be repeated for up to 3 credits.
MUS 664. Major Applied Area (Individual Instruction) (1,2,4). By permission of instructor. May be repeated for credit. 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 performance will register for the weekly recital hour. Instruction available in performance areas A-H. Intended for Performance and Performance-pedagogy majors.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to six credits.

## PHILOSOPHY AND RELIGIOUS STUDIES DEPARTMENT

Ellensburg
Language and Literature Building, room 337
509-963-1818
Fax 509-963-1822
www.cwu.edu / ~philo/index.html
See Web site for how these programs could be used for educational and career purposes.

Faculty and Staff
Chair
Chenyang Li, PhD

## Professor

Chenyang Li, PhD, Asian philosophy, comparative philosophy, ethics, social and political philosophy

## Associate Professors

Cynthia Coe, PhD, 20th-century continental philosophy, feminist philosophy, director of women studies
Jeffrey Dippmann, PhD, world religions, Chinese Buddism and Daoism
Heidi Szpek, PhD, Hebrew Bible, Western religious traditions, Judaism, Holocaust studies, ancient Near Eastern languages, literature and culture

## Assistant Professors

Matthew Altman, PhD, early modern philosophy (Kant), 19th-century philosophy, ethics and applied ethics, social and political philosophy, philosophy of art, director William O. Douglas Honors College
Gary Bartlett, PhD, philosophy of mind, cognitive science, epistemology
Alain Beauclair, PhD, ethics, American philosophy, ancient philosophy, hermeneutics and philosophy of art

## Emeritus Professors

Peter M. Burkholder, PhD

Raeburne S. Heimbeck, PhD
Webster F. Hood, PhD
Chester Z. Keller, PhD

Staff
Jan Farrell, secretary

## Department Information

The Department of Philosophy and Religious Studies does not offer graduate degrees.

## Philosophy Courses

PHIL 503. Philosophy of Education (3). Various philosophic positions which lead to an understanding of the educational enterprise. PHIL 503 and EDF 503 are equivalent courses. Student may not receive credit for both.
PHIL 596. Individual Studies (1-6).
Prerequisites: graduate students or seniors, GPA of 3.0 in philosophy, and a cumulative GPA of 3.0, plus approval of the instructor and chair of the department.
PHIL 598. Special Topics (1-6).

## Religious Studies Course

RELS 596. Individual Studies (1-6).
Prerequisites: graduate students or seniors, GPA of 3.0 in philosophy, and a cumulative GPA of 3.0 plus approval of the instructor and chair of the department.

## THEATRE ARTS DEPARTMENT

Ellensburg
McConnell Hall, room 102
509-963-1750
Fax: 509-963-1767
www.cwu.edu / ~theatre
See Web site for how theatre arts could be used for educational and career purposes.

## Faculty and Staff

Chair and Director of Summer Institute
Scott R. Robinson, MFA
Graduate Coordinator
Nadine Pederson, PhD

## Professors

Brenda Hubbard, MFA, performance head, acting, directing, literature
Scott R. Robinson, MFA, resident costume designer
Michael J. Smith, MFA, acting, directing, voice, literature, musical theatre

## Associate Professors

Christina Barrigan, MFA, design head, resident lighting designer

George W. Bellah, 3rd, MFA, movement, stage combat, acting, Asian drama

## Assistant Professors

David Brown, MM, music director, music theory
Terri Brown, PhD, music theatre head, history
Marc Haniuk, MFA, scenic design and technology
Elise Forier, MFA, theatre education head, youth theatre, playwriting
Nadine Pederson, PhD, history, literature, criticism

## Lecturers

David Barnett, MFA, theatre technology Jerry Dougherty, MFA, theatre technology Keith Edie, MFA, performance

## Staff

David Barnett, McConnell state manager/ technical director
Leslie Caul, director of marketing and development
Mary Makins, senior department secretary M. Catherine McMillen, costure shop manager Linda Waters, fiscal technician II

## 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.

This program is specifically designed around the students work schedule with courses offered annually from mid-June to mid-July and a culminating project at the home school. 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 60 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. Many are intensive workshops and meet from three to 10 hours per day. Most candidates can complete approximately 16-20 credits per summer. Qualified students in the institute may enroll in the master's degree courses if room permits, and master's candidates enroll in selected courses from the institute listings.

Housing for summer institute participants is available in nearby university accommodations.

## 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.


## Theatre Production Specialization

Incoming candidates are expected to meet both the requirements for admission to the graduate programs at Central and the following program requirements:

- Two years of teaching experience or two years of professional theatre experience earned in preparation for teaching
- Permission of the faculty, which may include prerequisite or background courses
- If the candidate does not hold a bachelor's degree in theatre and basic course work in theatre history, prerequisite or background courses may often be taken in the Summer Institute for Theatre Arts. An assessment entry exam is required and is taken shortly after classes begin.
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.

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 509-963-3131 to request application materials.

## Master of Arts - Theatre

## Required Core Courses

Courses required in all specializations .... 15
TH 501 - Introduction to Graduate Studies (1)
TH 510 - Studies in Dramatic Literature (4)
TH 511 - Analysis and Criticism (4)
TH 700 - Master's Thesis Project (6)
Students must choose either the theatre studies or theatre production specialization to complete degree requirements.

Total Core Credits: 56

## 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 handson 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.

## Theatre Studies Specialization required courses: <br> In addition to the MA core of 15 course credits, students must complete the following: <br> Component 1: Research and History <br> TH 505 - Research Methods. 2 <br> TH 525 - Theatre History Ancients- <br> Renaissance ................................. . . . 3 <br> TH 526 - Theatre History Renaissance- <br> Modernism. <br> TH 527 - Theatre History Modernism- <br> Present. .

## Component 2: Dramatic Literature

Select a minimum of 10 credits from the following.
TH 512 - Studies in Gender Issues (5)
TH 513 - Studies in World Drama (5)
TH 514 - Studies in Asian Drama (5)
TH 515 - Studies in Ethnic Drama (5)

TH 516 - Studies in Classical Drama (5)
TH 517 - Studies in Medieval Drama (5)
TH 518 - Studies in Early Modern Drama (5)
TH 519 - Studies in Drama and the State (5)
TH 598 - Special Topics (1-6)
TH 599 - Seminar (1-5)
Component 3: Focal Area
Choose a minimum of nine credits from the
following.
TH 540 - Directing I (3)
TH 541 - Directing II (3)
TH 582 - Performance Studies (3)
TH 587 - Theatre Pedagogy (3)
TH 588 - Dramaturgy (3)
TH 589 - International Applied
Studies (1-6)
TH 593 - Practicum (1-3)
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 better in all terms is required. This may be completed prior to admission or while enrolled in the Theatre Studies program.

## Total Credits: 45

## Theatre Production Specialization

The Theatre Production specialization is designed to prepare English and drama teachers to teach and produce theatre in the secondary and middle schools. Courses are designed specifically for the secondary school setting and include study in stage technology, teaching acting skills, acquiring basic learning in dramatic literature and history, supervised practice in directing plays and musicals, compiling classroom activities, and creating a curriculum for drama program development.

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 may find it necessary to register for thesis credits during the academic year. Residency requirement for this program is fulfilled over three summers.

## Program Requirements

A minimum of 56 credits is required for the degree specialization. Creative project (thesis) credits may be included in the minimum. The creative project (thesis) required is a full production of a play or musical at an approved outside venue usually the candidate's high school, or an approved process drama project 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 theatre. An oral examination and defense of the creative project (thesis) is required.

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. Prerequisites required for admission to the program may not be applied to the total required credit for graduation.

## Theatre Production Specialization required

 courses:In addition to the MA core of 15 course credits, students must complete the following:

## Component 1: Directing

TH 540 - Graduate Directing I . . . . . . . . . . . . 3
TH 541 - Graduate Directing II . . . . . . . . . . . . 3
TH 542 - Musical Theatre Directing . . . . . . . . 4
Component 2: Performance
Choose 12 credits from the following . . . . . 12
TH 531 - Mime and Movement (3)
TH 533 - Stage Combat for Teachers (3)
TH 534 - Improvisational Techniques (3)
TH 539 - Directing and Teaching Young Actors (3)
TH 543 - Acting Fundamentals (3)
TH 544 - Acting Styles (3)
TH 545 - Voice and Dialects (3)
TH 546 - Teaching Shakespeare Performance (3)
Component 3: Technology and Design
Choose 12 credits from the following . . . . . 12
(At least one course in each of the following areas: costume, scenic, lighting)
TH 560 - Stage \& TV Makeup (3)
TH 562 - Costume Accessories (3)
TH 565 - Creative Costuming (3)
TH 566 - Masks and Makeup (3)
TH 568 - Lighting Techniques (3)
TH 571 - Design Methodology (3)
TH 580 - Scenic Methods (3)
TH 583 - Settings and Properties (3)
Component 4: Pedagogy and Program
Development
Choose six credits from the following . . . . . . 6
TH 520 - Exploring Drama in the Classroom (3)
TH 521 - Curriculum \& Program Development (3)
TH 530 - Playwriting Application (3)
TH 584 - Puppetry in the Classroom (3)
Component 5: Creative Project
TH 502 - Introduction to the Creative Project 1
Total Credits: 56
Note: TH 510, 511, 520, 521, 530, 533, 534, 539, $540,544,545,565,566,568,580,583,584$, and 700, required for teacher certification, meets Washington State and NCATE criteria. To earn the Washington State endorsement in theatre, the candidate must successfully complete the WEST-E
examination. The Praxis test may be required to complete certification in other states.

Note: TH 543 and 583 may be used to fulfill Component 3 if not used to fill deficiencies on admission to the program.

## Theatre Arts Courses

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.
TH 501. Introduction to Graduate Studies (1). Introduction to current theatre research topics and library resources. Prerequisite: admission to the MA program.
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. Prerequisite: TH 501. All coursework (except TH 700) in Course of Study must be completed.
TH 503. Survey of Theatre History and Literature (4). Theatre history from beginnings to the present and analysis of selected plays from each period.
TH 505. Research Methods (2). The procedure, techniques, and application of research methods in theatre. Prerequisite: admission to MA Theatre or consent of the instructor.
TH 510. Studies in Dramatic Literature (4). Course content identified by title in the university class schedule. Prerequisite: admission to MA program or permission of instructor.
TH 511. Analysis and Criticism (4). Critical analysis from Aristotle to the present as applied to selected dramatic texts. Prerequisite: admission to MA program or permission of instructor.
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.
TH 513. Studies in World Drama (5). The study of theory and practices of postmodern world drama. May be repeated for credit at topics change.
TH 514. Studies in Asian Drama (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.
TH 515. Studies in Ethnic Drama (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.
TH 516. Studies in Classical Drama (5).
The study of theory and practices of the
drama of the ancients, including Greek and Roman. May be repeated for credit as topics change.
TH 517. Studies in Medieval Drama (5). The study of theory and practices of drama from the early, middle, and / or late Middle Ages in Europe and / or Asia. May be repeated for credit as topics change.
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.
TH 519. Studies in Drama and the State (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.
TH 520. Exploring Drama in the Classroom (3). Projects for building drama skills through classroom activities ranging from creative movement to storytelling.
TH 521. Curriculum \& Program
Development (3). Exploration of national trends and practices in high school drama programs with emphasis on development in specific situations.
TH 525. Theatre History AncientsRenaissance (3). The study of theatrical history from the Ancients through the Renaissance. Prerequisite: admission to MA Theatre or consent of instructor.
TH 526. Theatre History RenaissanceModernism (3). The study of theatrical history from the Renaissance through Modernism. Prerequisite: admission to MA Theatre or consent of instructor.
TH 527. Theatre History ModernismContemporary (3). The study of theatrical history from Modernism to contemporary. Prerequisite: admission to MA Theatre or consent of instructor.
TH 530. Playwriting Application (3). Methods of teaching playwriting and producing one-act play festivals in secondary schools.
TH 531. Mime and Movement (3). Techniques for teaching basic mime skills and stage movement classes to teenage performers.
TH 533. Stage Combat for Teachers (3). Training in unarmed skills. Some training in weaponry use may be included. Practice in using and teaching these skills for stage performance.
TH 534. Improvisational Techniques (3). Improvisational exercises to teach young actors the purpose of freeing the body and voice while sharpening their instincts and intuition.
TH 536. Advanced Stage Movement (3). The study and practice of specialized movement techniques for the stage focusing on methods such as Laban, Suzuki, Rasaboxes, Alexander, and Linkletter, among others. May be repeated up to 9 credits if content changes.
TH 539. Directing and Teaching Young Actors (3). Staging and teaching skills to
draw truth from young actors and eliminate over-acting and frozen memorization.
TH 540. Graduate Directing I (3). Theory and practice in directing realistic plays.
TH 541. Graduate Directing II (3). Theory and practice in directing classical plays.
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.

TH 543. Acting Fundamentals (3). Teaching realistic acting techniques to young actors.
TH 544. Acting Styles Application (3). Advanced practice in applying skills of performance to special textual needs, including stylized comedy, modern realism, and heightened language.
TH 545. Voice and Dialects (3). The physiological fundamentals of vocal production and dialect acquisition skills.
TH 546. Teaching Shakespeare Performance
(3). Techniques to guide young actors for analysis, preparation, and speaking Shakespeare's language.
TH 547. Musical Theatre Choreography (3). Study and practice of basic choreographic skills needed in musical theatre. May be repeated up to 12 credits.
TH 550. Theatre and Arts Management (3). Policy and practice of theatre and arts administration including budgets, contracts, box office, purchasing, staffing, grant writing, marketing, and patron development.
TH 556. Sound Design and Engineering (3). Exploration and application of the elements of design and engineering as they relate to sound for the performing arts.
TH 560. Stage \& TV Makeup (3). Study of materials and practice in techniques of creating effect through makeup. Formerly TH 460, may not receive credit for both.
TH 562. Costume Accessories (3). Hat making and accessory construction and their relationship to theatrical costuming. Formerly TH 462, may not receive credit for both.
TH 564. Wig Applications (3). The study and practice of creating and restoring wigs for stage. TH 564 and TH 464 are equivalent courses. Student may not receive credit for both. Additional course fees apply.
TH 565. Creative Costuming (3). Creating costumes, both realistic and classic, from old clothes and unusual materials with a minimal budget.
TH 566. Masks and Makeup (3). Creating masks from face castings and techniques for special effects makeup. Formerly TH 466, may not receive credit for both.
TH 568. Lighting Techniques (3). Study of color, instruments, drafting, and electricity for lighting stage productions, with emphasis on limited equipment and budgets.
TH 569. Advanced Lighting Concepts (3).
The study and practice of advanced lighting concepts as they apply to stage production. Prerequisite: TH 568 or permission of the instructor.

TH 570. Music Theatre Workshop (1-6). Participation in the production of a large musical from first rehearsal to opening night.
TH 571. Design Methodology (3). Study and practice in the concepts and fundamentals of design for the stage. Prerequisite: TH 510.
TH 575. Stage Rigging (3). Study and practice of the techniques of theatrical rigging for the stage.
TH 576. Theatre and Auditorium Maintenance and Management (3).
The study and practice of specialized procedures for maintaining and managing theatre and auditorium stages including rigging, lighting, sound, and related equipment.
TH 580. Scenic Methods (3). Study and practice in techniques of scenery construction, stage rigging, and painting.
TH 582. Performance Studies (3). Explores the concept of performance in the 20th and 21st centuries through case studies and scholarship, with special attention paid to the multi-disciplinary nature of the field.
TH 583. Settings and Properties (3).
Construction of mock stages using various scene-shifting techniques. Theatre shop safety, set assembly, and prop construction techniques.
TH 584. Puppetry in the Classroom (3). Art of puppetry applied to classroom use by teachers and counselors, emphasizing self expression and entertainment.
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. Prerequisite: permission of the instructor. May be repeated for credit up to 8 credits. TH 487 and TH 587 are equivalent courses.
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.
TH 589. International Applied Studies (1-6). Applied research at international venues. May be repeated for a maximum of 6 credits.
TH 591. Workshop (1-6). No more than two workshops for a combined maximum of eight 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. Prerequisite, TH 588 or consent of instructor. May be repeated for a total of 6 credits.
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.
TH 596. Individual Study (1-6).
TH 598. Special Topics (1-6).

TH 599. Seminar (1-5). May be repeated. TH 700. Master's Thesis Project (1-6). Designed to credit and record supervised study for the master's examination. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## COLLEGE OF BUSINESS

## ACCOUNTING DEPARTMENT

Ellensburg (E)
Shaw-Smyser Hall, room 327
CWU-Des Moines (D)
CWU-Lynnwood (L)
509-963-3340
Fax: 509-963-2875
www.cwu.edu / ~cb / acct/
See the Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
Marvin Bouillon, PhD, CPA (E)
Shaw-Smyser Hall, room 340

## Professors

Marvin Bouillon, PhD, CPA (E)
Norman J. Gierlasinski, DBA, CPA, CFE, CIA (D)

Gary W. Heesacker, MBA, CPA (E)
Robert E. Holtfreter, PhD (E)
Karen D. Martinis, MBA, CPA (E)
Ronald R. Tidd, PhD, CPA (E)
Associate Professors
MaryAnne Atkinson, PhD (L)
Linda Larson, DBA, CPA, CIA, CISA, CFE (L)
Michael Ruble, PhD, CPA (L)

## Assistant Professors

Scott Leong, PhD (E)
Ke Zhong, PhD
Staff
Sharon Damm, Secretary

## Master of Professional

Accountancy

## Overview

The accounting department offers a master of professional accountancy degree. We help our students enter the public accounting profession by developing the entry-level knowledge and skills expected by the profession in the areas of auditing and attestation, financial accounting and reporting, regulation, business environment and concepts, and writing.

## Admission Requirements

In addition to general regulations for admission to master's programs, admission to the master of professional accountancy program requires the following:

1. Meet one of the following four degree requirements:
a. Bachelor's degree in accounting from an accredited university; or
b. Bachelor's degree in business administration from an accredited university may be provisionally accepted. Full acceptance for provisionally accepted students shall result upon completion of the core accounting courses listed below with a 2.7 grade point average.

ACCT 305, Cost Accounting
ACCT 346, Income Tax Accounting I
ACCT 350, Intermediate Accounting I
ACCT 351, Intermediate Accounting II ACCT 460 Auditing
c. Bachelor's degree in managerial/ business economics from an accredited university may be provisionally accepted. Full acceptance for provisionally accepted students shall result upon completion of the core business and accounting courses listed below with a 2.7 grade point average.
ACCT 305, Cost Accounting
ACCT 346, Income Tax Accounting I
ACCT 350, Intermediate Accounting I
ACCT 351, Intermediate Accounting II ACCT 460, Auditing
MGT 489, Strategic Management BUS 241, Legal Environment of Business
d. Bachelor's degree from an accredited university in an area other than accounting, business administration, or managerial/business economics may be provisionally accepted. Full acceptance for provisionally accepted students will result upon completion of the following core business courses with a 3.0 grade point average and the core accounting courses with a 2.7 grade point average.
ACCT 251, Accounting I
ACCT 252, Accounting II
BUS 221, Introductory Business Statistics
BUS 241, Legal Environment of Business
ECON 201, Principles of Economics Micro
ECON 202, Principles of Economics Macro
FIN 370, Introduction of Financial Management
MGT 382, Principles of Management
MKT 362, Essential Marketing Concepts
SCM 310, Supply Chain Management
ACCT 305, Cost Accounting
ACCT 346, Income Tax Accounting I

ACCT 350, Intermediate Accounting I
ACCT 351, Intermediate
Accounting II
ACCT 460, Auditing
MGT 489, Strategic Management
2. Applicants are required to submit a Test of English as a Foreign Language (TOEFL) Internet-based score of 79 or above or paper-based score of 550 or above, if their native language is not English. Student wishing to have credits from non-United States institutions considered for transfer into the College of Business for any major or minor must have their transcripts evaluated through outside credential evaluators who are members of the National Association of Credential Evaluation Services (NACES), such as Foundation for International Services (FIS), the World Education Services (WES), or Educational Perspectives.
3. Applicants are required to submit Graduate Management Admission Test (GMAT) scores instead of Graduate Record Examination (GRE) scores. A minimum GMAT total score if 500 is desired for admission into the MPA Program. Admission to the program will be competitive based mainly on gradepoint average and scores on the Graduate Management Admission Test (GMAT) using the following formula:
(grade point average on a 4.0 scale $\times 200)=$ 800 points possible
$+($ GMAT $)=800$ points possible
Total Score $=1,600$ points possible
The factor will be used for the initial ranking of candidates for admission consideration. In addition to the factor rankings, the department may use other considerations to develop the final admissions list. Due to space considerations, a separate admissions list will be developed for each location. Students will be accepted into the program at a specific location and will be allowed to take classes only at that location. Students may not transfer to other locations without the permission of the department chair.

## Program Requirements

To graduate with the MPA degree, 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 course of study. In addition, the student must successfully pass the comprehensive exam (ACCT 700) in the last quarter of coursework and comply with the procedural requirements of the university and the Office of Graduate Studies and Research.

No more than five elective credit hours may be transferred toward meeting the requirements of the MPA program. Subject to the approval of the department chair and the college dean or designee, those credits
can be earned in other accredited graduate programs. MPA degree students must register for the Uniform CPA Examination during the first two weeks of fall quarter and take three sections of the examination and schedule the fourth section before graduation. Students must submit copies of their CPA examination scores to the MPA program director within 10 days of receiving the results for each section.

## Required Courses

MGT 525 - Strategic Management/Business
Simulation
. 5
ACCT 505 - Controllership . . . . . . . . . . . . . . . 5
ACCT 510 - Information Systems Security, Control and Audit . . . . . . . . . . . . . . . . . . .
ACCT 520 - Tax and Legal Strategies for Business
ACCT 570
ss . . . . . . . . . . . . . . . . . . . . .
Taxation .................................... . . . 5
ACCT 581 - Seminar in Financial
Accounting. 5

ACCT 583 - Seminar in Auditing . . . . . . . . . . 5
ACCT 585 - Seminar in Professional Accountancy and Ethics .5
ACCT 700 - Master's Thesis, Project
Study, and / or Examination ............ 1
Elective Courses . . . . . . . . . . . . . . . . . . . . . . 5
ACCT 561 - Fraud Examination (5)
ACCT 565 - Current Issues in Information Technologies (5)
ACCT 580 - Advanced Taxation (5)
ACCT 590 - Cooperative Education (5)
Program Total Credits: 46

## Accounting Courses

ACCT 505. Controllership (5). Use of case analysis and other techniques to develop managerial accounting analysis and decision-making skills. Study of financial management, planning, and measurement. Prerequisite: admission to the Master of Professional Accountancy Program.
ACCT 510. Information Systems Security, Control, and Audit (5). Study of control and audit issues in an information-system environment. Use of various techniques to develop critical thinking and problem solving skills. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 520. Tax and Legal Strategies for Business (5). Case studies in business law and taxation. Improvement of business law and taxation knowledge and skills. Group case presentations. Tax paper presentation to professionals. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 561. Fraud Examination (5). Detection and prevention of financial statement fraud and other forms of business fraud. Prerequisite: admission to Master of Professional Accountancy Program. ACCT 565. Current Issues in Information Technologies (5). Current issues in information technologies and their relevance for accounting professionals.

Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 570. Foundations of Income Taxation (5). Introduction to foundations of income taxation of corporations, partnerships, and individuals, with emphasis on tax compliance and computer-based tax research. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 580. Advanced Taxation (5). Taxation of trusts and estates, gratuitous transfers, and the formation and termination of corporations and partnerships, with emphasis on tax compliance and computerbased tax research. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 581. Seminar in Financial Accounting
(5). Use of case analysis and other techniques to develop financial accounting analysis and decision-making skills. Study of FASB Current Text and Original Pronouncements. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 583. Seminar Auditing (5). Use of case analysis and other techniques to develop auditing analysis and decisionmaking skills. Study of AICPA Professional Standards. Prerequisite: admission to Master of Professional Accountancy Program.
ACCT 585. Seminar in Professional Accountancy and Ethics (5). Uses case analysis and other techniques to develop professional analysis, decision-making, and ethics skills. Study of AICPA Professional Standards. Prerequisite: admission to Master of Professional Accountancy Program.
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. Prior approval is required. Grade will be $S$ or $U$. May be repeated for up to 5 credits.
ACCT 596. Individual Study (1-6).
Prerequisite: permission of instructor.
ACCT 598. Special Topics (1-6).
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either $S$ or $U$.

## Management Course

MGT 525. Strategic Management/Business Simulation (5). Developing accountants as business advisors. Performance measurement, financing, and overall corporate strategy. Business simulation involving professionals. Prerequisite: admission to the Master of Professional Accountancy program.

## COLLEGE OF EDUCATION AND PROFESSIONAL STUDIES

## CENTER FOR

 TEACHING AND LEARNINGEllensburg
Black Hall, room 228-17
509-963-1409
The Center for Teaching and Learning (CTL) is the National Council for Accreditation of Teacher Education-(NCATE) accredited unit that provides oversight for all CWU school personnel preparation programs. The CTL is intended to facilitate communication between and among the respective disciplines that contribute to the preparation of educators. CTL programs include the preparation of teachers, school administrators, school counselors, and school psychologists.

## Center for Teaching and

Learning Courses
ECTL 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
ECTL 601. Professional Certificate: Preassessment Seminar (4). Candidates attending the seminar will review required standards and criteria and identify evidence/indicators to meet each criterion. The seminar will culminate with approval of the candidate's Professional Growth Plan.
ECTL 602. Teacher Professional Certification Portfolio Seminar I (2). Study of the Teacher Professional Certificate standards, descriptions of practice, the portfolio entry directions, and portfolio rubrics. Prerequisite: admission to CWU's Teacher Professional Certificate program. Grade will be $S$ or U.
ECTL 603. Gathering and Evaluating Quality Evidence (2). Processes and methods of gathering and presenting evidence of positive impact on student learning as defined in the professional certificate descriptions of practice. Prerequisite: ECTL 601 and admission to the professional certificate program. Grade will be S or U.
ECTL 604. Teacher Professional Certificate Field Work (2). Gathering and evaluating evidence for the Teacher Professional Certificate portfolio. Descriptive, analytic, and reflective writing on classroom evidence for the portfolio. Prerequisite: admission to CWU's Teacher Professional

Certificate program, ECTL 602, and ECTL 603. Grade will be S or U.

ECTL 608. Teacher Professional Certificate Portfolio Seminar II (2). Preparation of the Teacher Professional Certificate portfolio for submission for eternal assessment. Peer and instructor review of the portfolio using the portfolio entry rubrics. Prerequisites: admission to CWU's Teacher Professional Certification program, ECTL 602, and ECTL 603. Grade will be $S$ or $U$.

ECTL 609. Professional Certificate: Culminating Seminar (2). Candidates attending the seminar will submit a portfolio of evidence to the Professional Growth Team. If the portfolio meets all requirements, the team will recommend the candidate for Professional Certification.
ECTL 613. Take One! Portfolio Entry Process (2). Development of the portfolio of accomplished teaching practice by National Board Certified Teacher candidates. Compilation of student work samples and videotapes; development of analytic commentaries. Prerequisite: participant in Take One! from NBPTS.
ECTL 615. National Board Certificated Teacher Portfolio Process (3). Development of the portfolio of accomplished teaching practice by National Board Certified Teacher candidates. Compilation of student work samples and videotapes; development of analytic commentaries. Prerequisites: admission to NBCT candidacy for NBPTS and registration with CWU's NBCT mentoring program. Grade will be $S$ or $U$.

## ADVANCED PROGRAMS DEPARTMENT

Ellensburg
Black Hall, room 241-25
509-963-2460
Fax: 509-963-1162
www.cwu.edu / ~education
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Henry Williams, EdD

## Professors

Henry Williams, EdD
James Pappas, EdD
Associate Professors
Marwin Britto, PhD
Andrea Sledge, PhD
Assistant Professor
Dennis Szal, EdD

## Lecturer

Leona Lindvig, MEd, Library Media

## Department Information and Requirements

Programs included in the Department of Advanced Programs are Education Administration, Library Media (See Library in the catalog) and Professional Certification.

The master in Education School Administration degree program prepares teachers for the residency principal's certificate and program administrator. A student shall complete at least 56 credits in an approved course of study to be developed in consultation with the graduate advisor.

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 is for teachers who wish to improve their classroom techniques and explore personal growth opportunities (OSPI requirement).

## Admission Requirements

In addition to general requirements for admission into the master's program, students desiring admission to the Department of Advanced 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 <br> 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, Educational Measurement for Teachers, EDF 507, Studies and Problems in Intercultural Education. 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.

## Master of Education: School Administration

The master in Education School Administration program prepares teachers for the residency principal's certificate. A student shall complete at least 56 credits in an approved course of study to be developed in consultation with the graduate advisor. This program provides options for the various school levels, but does not necessarily 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 16-credit, year-long internship (see section II for more information).

## I. Admission Requirements

- Earned a bachelor's degree from an accredited four-year college or university in the United States or the equivalent from an institution abroad
- A minimum of one year of successful, contracted teaching experience in a K-12 classroom setting
- Full admission to Central Washington University
- Minimum GPA of 3.0
- Minimum of three (3) references, one must be from your current principal
- Statement of objectives
- Transcripts from all institutions attended (except CWU)
Note: Completion of the master's degree does not allow you to achieve the Administrator's Certificate (Refer to section II).


## II. Course Requirements

Students will not be allowed to enroll in any EDAD courses until they have been admitted into the master in Education School Administration program.

## Required Courses

Educational Foundations and Research courses (to include EDF 507 and EDF 510. . 10
EDSE 512 - Educational Rights of
Individuals with Disabilities .
EDAD 580 - Educational Administration . . . . . 5
EDAD 581 - Pubic School Finance . . . . . . . . . 5
EDAD 582 - School Curriculum . . . . . . . . . . . 5
EDAD 583 - School and Community . . . . . . . 5
EDAD 584 - School Personnel . . . . . . . . . . . . . 5
EDAD 586 - The Principalship . . . . . . . . . . . . . . 5
EDAD 589-School Law. . . . . . . . . . . . . . . . . . 5


EDAD 700 - Master's Thesis, Project Study and/or Examination.
EDAD 565 - Educational Supervision ...... 2
Total Credits: 56

## General School Administration Option

The General School Administration program prepares individuals who can provide appropriate leadership and direction to the school professional staff and to the community by (1) developing a unified system for managing human resources; (2) developing long-range plans, policies and goals, and (3) executing the policies developed by the district.

Prerequisite: One year of successful contracted teaching experience in a K-12 classroom setting is required for admission to the General School Administration option. One of the three required recommendations forms for admission to the School Administration program must come from the applicant's current principal or designee. Students are not allowed to register for EDAD courses until they have been fully admitted into either the master's degree program or the Administrator Certificate program.

## Required Courses

Education Foundations and Research
Courses (to include EDF 507) $\qquad$
See your advisor if you have completed recent graduate coursework in Intercultural Education (i.e., EDF 507).
Advisor-approved electives. .
EDAD 580 - Educational Administration . . . 5
EDAD 581 - Pubic School Finance . . . . . . . . . 5
EDAD 582 - School Curriculum . . . . . . . . . . . 5
EDAD 583 - School and Community . . . . . . . 5
EDAD 584 - School Personnel . . . . . . . . . . . . . . . . . 5
EDAD 586 - The Principalship . . . . . . . . . . . . 5
EDAD 589 - School Law . . . . . . . . . . . . . . . . . . 5
EDAD 700 - Master's Thesis, Project Study
and/or Examination . . . . . . . . . . . . . . . . . .
EDSE 512 - Educational Rights of Individuals with Disabilities.

Program Total Credits: 56

## Master of Education:

## Instructional Leadership

Program: A student shall complete at least 56 credits in an approved course of study field with the Office of Graduate Studies and Research. The development of a course of study most appropriate to the professional goals and purposes of each individual student is encouraged.

Prerequisite: A minimum of one year of successful, contracted teaching experience in a K-12 classroom setting is required for admission to the instructional leadership program. One of the required recommendation forms for admission to the

Instructional Leadership program must come from the applicant's current principal or designee.

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.

## Required Courses

Education Foundations and Research
Courses (to include EDF 507)
See your advisor if you have completed recent graduate coursework in Intercultural
Education (i.e., EDF 507).
Advisor-approved electives. . . . . . . . . . . . . . . 7
EDAD 580 - Educational Administration ... 5
EDAD 581 - Pubic School Finance . . . . . . . . . 5
EDAD 582 - School Curriculum . . . . . . . . . . . 5
EDAD 583 - School and Community . . . . . . . 5
EDAD 584 - School Personnel . . . . . . . . . . . . . 5
EDAD 589 - School Law . . . . . . . . . . . . . . . . . . 5
EDAD 700 - Master's Thesis, Project Study
and/or Examination . . . . . . . . . . . . . . . . . . . 6
EDSE 512 - Educational Rights of Individuals with Disabilities.

Program Total Credits: 56

## Library Media - All Levels, Supporting Endorsement

This is a program to qualify students to become Library Media Specialists for K-12 schools in Washington State.

## Required Courses

EDLM 514 - Media Development . . . . . . . . . 3
EDLM 516 - Advanced Media Utilization . . 3
EDLM 526 - Instructional Methods for
Library Media Specialists . . . . . . . . . . . . . 3
EDLM 536 - Selecting Literature for
Children and Young Adults . . . . . . . . . . . 3
EDLM 548 - Collection Development for
Library Media Specialists .............. . . 3
EDLM 558 - Cataloging and Classification
for Library Media Specialists . . . . . . . . . . 3
EDLM 568 - Information Storage and Retrieval

$$
3
$$

EDLM 578 - Administration of Media/
Technology Programs . . . . . . . . . . . . . . . . 3
EDCS 596 - Individual Study (Practicum). . . 3
Total Credits: 27

## Education Administration <br> Courses

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 equivalent courses. Students may repeat up to 12 credits. Grade will be $S$ or U.
EDAD 565. Educational Supervision (2). An examination of problems and issues in supervision. Emphasizes evolving concepts of supervision, strategies, and
practices of promoting instructional change. Prerequisite: graduate status.
EDAD 580. Educational Administration (5). An examination of administrative theory, principles, concepts, and processes, and the administration of educational programs and services. Perquisite, one year of teaching experience.
EDAD 581. Public School Finance (5). An examination of writing educational grants and contracts. Students will build budgets and become familiar with various types and use of state funds. Prerequisite: one year of teaching experience.
EDAD 582. School Curriculum (5).
Examination of school curriculum for the improvement of instructional and student learning. Prerequisite: EDAD 580 or permission of the instructor.
EDAD 583. School and Community (5). 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.
EDAD 584. School Personnel (5).
Development of observation skills, assessment skills, and the ability to work with teachers for the improvement of instruction and student learning. Prerequisite: EDAD 580 or permission of the instructor.
EDAD 586. The Principalship (5). The administration of elementary, middle, junior high, and high schools. Covers common elements and those unique to specific levels. Prerequisite: one year of teaching experience.
EDAD 589. School Law (5). This course helps school practitioners anticipate and identify common legal problems and issues in education. Prepares students to use legal decisions to assist individuals with disabilities in creating an appropriate educational environment. Pre- or corequisite: EDAD 580 or permission of instructor.
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).
Prerequisite: permission of instructor. May be repeated.
EDAD 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDAD 598. Special Topics (1-6).
EDAD 599. Seminar (1-5). May be repeated.
EDAD 692. Pre-autumn Internship in School Administration (4). Emphasis on the principal's responsibilities prior to and during the opening of the school year. Prerequisites: minimum of three years of successful teaching experience, EDAD 580 and 586. Permission to register only after approval of department chair. Combines
with EDAD 693 for 16 total credits in administrative internship. Grade will be $S$ or U.
EDAD 693. Internship in School Administration (4-16). Prerequisites: minimum of three years of successful teaching experience, EDAD 580 and 586. (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 department chair. Grade will be S or U. Credits earned in an administrative internship may not exceed a total of 16 . Not more than 4 credits are applicable to credit requirements for the master's degree. Combines with EDAD 692 for 16 total credits in administrative internship. Formerly ED 693, students may not receive credit for both.
EDAD 694. Internship in Improvement of Instruction and Curriculum Development (4-16). (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.). Permission to register only after approval of the department chair. Grade will be S or U. Credits earned in an administrative internship may not exceed a total of 16 . Not more than 4 credits are applicable for credit requirements for the master's degree.
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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## Education Library Media Courses

EDLM 514. Media Development (3). Introduction to design and production of various instructional materials from manual to more complex computer techniques.

## EDLM 516. Advanced Media Utilization

 (3). Explores recent research, experimental programs, and new developments in the utilization of media. Prerequisite: EDCS 316.EDLM 526. Instructional Methods for Library Media Specialists (3). Survey and learn instructional filled by Library Media Specialists and the instructional methods they employ: storytelling, creative drama, authoring software, effective presentation, literature appreciation, reading motivation, puppetry, library skills, independent learning skills, and information literacy skills.
EDLM 536. Selecting Literature for Children and Young Adults (3). Prospective school Library Media Specialists will learn how to develop quality children and young adult literature collections and programs.

EDLM 548. Collection Development for Library Media Specialists (3). Explore the methods used and the issues and solutions involved in developing a collection in a school Library Media Center.
EDLM 558. Cataloging and Classification for Library Media Specialists (3). Cataloging and classification of library media materials with an emphasis on MARC records.
EDLM 568. Information Storage and Retrieval (3). Reference collection development and utilization with print, electronic, and on-line resources.
EDLM 578. Administration of Media/ Technology Programs (3). Develop skills and expertise needed to manage media/ technology programs at school building, school district, college and university, and private sector levels.

## EDUCATIONAL FOUNDATIONS AND CURRICULUM DEPARTMENT

Ellensburg
Black Hall, room 101
509-963-1461
Fax: 509-963-1162
www.cwu.edu / ~education
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Barry Donahue, EdD
Graduate Programs Coordinator
Cathy Bertelson, PhD
Director of Field Experience
Rexton Lynn, EdD

## Professors

Catherine Bertelson, PhD , educational technology
Rebecca S. Bowers, EdD, curriculum and instruction
Barry Donahue, EdD, philosophy, research design
Steven A. Schmitz, EdD, sociology,
philosophy, history, assessment, curriculum David Shorr, PhD, early childhood education
Don B. Woodcock, PhD, policy and management, multicultural, and American Indian education

## Associate Professors

Kim M. Jones, PhD, curriculum and instruction
Mary Lochrie, EdD, classroom management, assessment, curriculum and instructional planning

Ian Loverro, PhD , educational technology and communication
Steve Nourse, EdD, curriculum and instruction, supervision
Lee Plourde, PhD curriculum and instruction, supervision, administration

## Assistant Professors

Yukari Amos, PhD, bilingual education
Gary Ballou, PhD, field supervision Benson, Kelly, EdD, leadership, law Naomi Jeffery Petersen, EdD, philosophy, assessment, STEM, informal settings Molly Ross, EdD, field supervisor

## Lecturers

Alex Alexandrou, MA, field supervisor Jerry St. George, MEd, field supervisor

## Staff

Jan Case, program support supervisor Linda Huber, secretary senior

## Department Information

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 the program advisors.

## Admission Requirements

In addition to the university regulations concerning admission to graduate degree programs, students desiring admission to the Master Teacher, MEd program 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.

## Required Educational <br> 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, Educational Measurement for Teachers, EDF 507, Studies and Problems in Intercultural Education. 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.

## 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 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. 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 prior to the completion of 18 credits.

## Required Courses

* Educational Foundations and Research Courses
EDCS or EDF 700 - Thesis (or option) . . . . . . 6
Area of emphasis and related study. . . . . . . 29
Program Total Credits: 45
*See Required Educational Foundations and Research Courses.


## Curriculum Courses

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 equivalent courses. Students may repeat up to 12 credits. Grade will be $S$ or $U$.
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). Prerequisite: teaching experience. Open to experienced teachers.
EDCS 546. Advanced Laboratory Experience (2-5). Consult chair of department of Curriculum and Supervision for permission to register for this course.

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. Prior approval is required. Grade will 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). Prerequisite: permission of instructor. May be repeated.
EDCS 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDCS 598. Special Topics (1-6).
EDCS 599. Seminar (1-5). May be repeated.
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. Prerequisites: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## Education Foundations Courses

EDF 500. Professional Development (1-5).
Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
EDF 501. Educational Foundations (3).
Provides a background in selected areas of sociological, historical, and philosophical foundations of education. Also considers 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 equivalent courses. Students may not receive credit for both.
EDF 504. Advanced Educational Statistics
(4). Use and interpretation of complex statistical principles.
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.
EDF 511. Planning for Learning (3). Principles of planning, instruction, curriculum development, and pedagogy used in teaching primary, middle, and secondary-level students.
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. Prior approval is required. Grade will 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). Prerequisite: permission of instructor. May be repeated.
EDF 597. Graduate Research (1-10).
Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDF 598. Special Topics (1-6).
EDF 599. Seminar (1-5). May be repeated.
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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## FAMILY AND CONSUMER SCIENCES DEPARTMENT

## Ellensburg

Michaelsen Hall, room 100
509-963-2766
Fax 509-963-2787
www.cwu.edu / ~fandcs
Please see the family and consumer sciences (FCS) Web site for additional information on undergraduate education and career opportunities in FCS.

## Faculty and Staff

Chair
Jan Bowers, PhD

## Professors

Jan Bowers, PhD, family and consumer sciences education,
Robert Perkins, EdD, business and marketing education, recreation, leadership
Marla Wyatt, PhD, family and consumer sciences education

## Associate Professors

Kimberlee Bartel, PhD, business and marketing education
Dorothy Chase, PhD recreation and tourism
Barbara Masberg, PhD, recreation and tourism

## Assistant Professors

Kenneth Cohen, PhD, recreation and tourism Duane Dowd, PhD, CLFE, family studies Andrea Eklund, MA, fashion merchandising John Hudelson, PhD, global wine studies Amber Paulk, PhD, family studies, director of family resource center

LecturersVivian Baglien, PhD, family consumer sciences education
Karen Bergh, MEd, family consumer sciences education
Richard DeShields, MA, family studies Jaff Hagler, MA, recreation and tourism Ximenia Hedrick, MA, interior design Jodi Hoctor, BS, recreation and tourism Connie Kolokotrones, MS, interior design Theresa LaCroix, MS, recreation and tourism Peggy Roberts, MA, family studies

## Emeritus Professors

Joan Amby, PhD, family studies
Willa Dene Powell, PhD, family and consumer sciences education
Carolyn Schactler, MS, apparel design
William Vance, EdD, recreation and tourism

Staff
Bonnie Beekley, senior secretary
Sheri Hubbard, grant program coordinator

## Department Information

The graduate program in Family and Consumer Sciences is flexible and facilitates advanced study in Family Studies and Family and Consumer Sciences / Career and Technical Education. Application to graduate study is made through the Office of Graduate Studies and Research. Interested students are urged to contact the department chair for information and guidance.

## Master of Science Family and Consumer Sciences

## Program Coordinator

Jan Bowers, PhD
Michaelsen Hall, room 100
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.

## Master of Science <br> Family and Consumer Sciences, Family Studies Specialization

Graduate students in the family studies concentration 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. Deficiency courses include FS 210, FS 334, FS 433, and PSY 454.
Required Core Courses
FCSG 501 - Research Methods. ..... 4
FCSG 502 - Applied Statistics ..... 4
FCSE 590 - Cooperative Education
OR
FS 509 - Civic Engagement (3) ..... 12
FCSG 700 - Thesis/Project. ..... 6
Required Specialization Courses
FS 532 - Family Interaction ..... 4
FS 542 - Conflict Management .....  3
Approved Electives. ..... 14
Total Credits: 47

## Master of Science

 Family and Consumer Sciences, Career and Technical Education SpecializationStudents in the family and consumer sciences career and technical education specialization are entering a competencybased program. 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 a student needs to earn for each specialization course will be dependent upon his or her entry skill level. The credit range for finishing the graduate program will be between 45 and 66 credits.

## Required Core Courses

FCSG 501 - Research Methods. . . . . . . . . . . . . . 4
FCSG 502 - Applied Statistics . . . . . . . . . . . . . 4
FCSE 590 - Cooperative Education OR
FS 509 - Civic Engagement (3) . . . . . . . . . 12
FCSG 700-Thesis/Project . . . . . . . . . . . . . . . . . 6


Required Specialization Courses
CTEA 584 - Career and Technical Education Supervision and Evaluation . . . . . . . . . . .1-5
FCSE 521 - Curriculum Development in Family and Consumer Sciences . . . . . . . 1-5
FCSE 522 - Survey of Research in Family and Consumer Science Education . . . . . . . . . 1-5
CTEA 580 - Administration of Career and Technical Education . . . . . . . . . . . . . . . . .1-5
CTEA 581 - Career and Technical Education Finance . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1-5
CTEA 583 - Career and Technical Education Partnerships and Advisory Committees .1-5 Approved Electives. . . . . . . . . . . . . . . . . . . 0-19

Total Credits: 45-56

## Career and Technical Education Courses

CTEA 580. Administration of Career and Technical Education (1-5). The study of the administration and directorship of the laws, trends, issues, and standards of career and technical education.
CTEA 581. Career and Technical Education Finance (1-5). The study of the local, state, and federal financing (both revenue and expenditure) of education with an emphasis on career and technical education.
CTEA 583. Career and Technical Education Partnerships and Advisory Committees (1-5). The study of the relationship between the school, its program and curriculum, with the community-based business and organizations related to the CTE programs.
CTEA 584. Career and Technical Education Supervision and Evaluation (1-5). The development of observation and assessment skills to gain the ability to work with teachers for the improvement of instruction and student learning in CTE.

## Family and Consumer Sciences

## Education Courses

FCSE 512. Transition to Family and Consumer Sciences Education (4). Familiarizes students with FCS discipline and provides resources and information for achieving Family and Consumer Sciences teacher licensure. Grade will be S or U .
FCSE 521. Curriculum Development in Family and Consumer Sciences Education (1-5). Instruction, organization, and classroom procedures in CTE Family and Consumer Sciences Education.
FCSE 522. Survey of Research in Family and Consumer Science Education (1-5). The historical, philosophical, and legislative basis of CTE FCS program development and professional growth.
FCSE 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learningplan, cooperating employer supervision,
and faculty coordination. Prerequisite: undergraduate degree and permission of graduate coordinator.

## Family Studies Courses

FS 531. Conceptual Frameworks in Family Analysis (3). Sociological, psychological, and developmental theories relating to study of family patterns and practices.
FS 532. Family Interaction (4). Analysis of relevant literature associated with establishing and maintaining interpersonal and family relationships. Prerequisite: 8 credits of upper-division coursework in family studies or the behavioral sciences.
FS 533. Family Life Education Methodology
(2). General philosophy and broad principles of family life education in conjunction with the ability to plan, implement, and evaluate such educational programs. Prerequisite: permission of the instructor.
FS 534. Human Development Across the Life Span (3). Life span approach to the understanding of normative and nonnormative developmental processes. Understanding of the scholarship of human development as applied to the helping professions. Prerequisite: admission to the MS program or by permission of the instructor.
FS 535. Family Resource Management (3). Decisions individuals and families make about developing and allocating resources including time, money, material assets, energy, friends, neighbors, and space to meet their goals. Prerequisite: permission of the instructor.
FS 536. Parent Education (4). Principles, methods, and materials for parent education with special attention given to program development, implementation, and evaluation.
FS 537. Sexuality Education (2). Advanced approaches to teaching comprehensive sexuality education in school and community settings. Prerequisite: FCSF 337 or equivalent.
FS 539. Families and Public Policy (4). Impact of governmental policies on families; policy implications of changes in the structure and composition of families. Prerequisite FCSF 334 or permission.
FS 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.
FS 590. Cooperative Education in Family and Consumer Science (8). A field experience in business, industry, government or service agency that is relevant to and consistent with the family life education profession. Prerequisite: permission of the instructor.

## Family and Consumer Sciences General Courses

FCSG 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
FCSG 501. Research Methods (4). An examination of methods of conducting research on human behavior, with an emphasis on application.
FCSG 502. Statistics (4). Introduction to quantitative statistics in social sciences. Topics include conducting analyses using computer software (SPSS), evaluating the results of statistical analyses, and drawing appropriate conclusions.
FCSG 509. Civic Engagement (3). Student will use program-of-study content knowledge to improve a community situation. FCSG 509 and EDCS 509 are equivalent courses. May be repeated for credit.
FCSG 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 equivalent courses. Students may repeat up to 12 credits. Grade will be $S$ or U .
FCSG 595. Graduate Research (1-10). Development and investigation of an approved laboratory or field research problem. Prerequisite: permission of major advisor. May be repeated. Maximum of 6 credits may be included in Course of Study for the master's degree. Grade will be $S$ or U.

FCSG 596. Individual Study (1-6). May be repeated.
FCSG 598. Special Topics (1-6).
FCSG 599. Seminar (1-5). May be repeated.
FCSG 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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be S or U. May be repeated for up to 6 credits.

## Recreation and Tourism Courses

RT 500. Professional Development (1-5).
Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. Formerly LES 500.
RT 505. Hospitality Catering (3). Basics of offpremise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RT 405, and RT 505 are equivalent courses. Students may not receive credit for more than one.

RT 574. Hotel Operations Analysis (2). Analysis of hotel performance and forecasting, with tools typically used in a lodging environment. Prerequisites: Math Basic and Breadth requirements, ACCT 301, RT 272, and permission. RT 474 and RT 574 are equivalent courses. Students may not receive credit for both.
RT 591. Workshop (1-6). Formerly LES 591.
RT 596. Individual Study (1-6). May be repeated. Formerly LES 596.
RT 598. Special Topics (1-6). May be repeated under different titles. Formerly LES 598.
RT 599. Seminar (1-5). May be repeated for credit under different titles. Formerly LES 599.

## INDUSTRIAL AND ENGINEERING TECHNOLOGY DEPARTMENT

Ellensburg (E)
Hogue Hall, room 107
CWU-Des Moines (DM)
CWU-Lynnwood (L)
509-963-1756 (E)
Fax: 509-963-1795
206-439-3800 (DM)
425-640-1574 (L)
www.cwu.edu / ~iet
See the Department of Industrial and Engineering Technology's Web site for additional information detailing how these programs could be used for educational and career opportunities.

## Faculty and Staff

Chair
Michael L. Whelan, PhD

## Professors

William Bender, PhD, construction management
David Carns, MS, construction management
Craig Johnson, PhD, mechanical engineering technology
Taiqian Q. Yang, PhD, electronics
Associate Professors
Scott Calahan, MEd, industrial/technology education
John (Jack) A. Gumaer, MS, electronics
Lad Holden, MT, electronics
Michael L. Whelan, PhD, construction management

## Assistant Professors

Roger Beardsley, MS, mechanical engineering technology
Geoff Dean, PhD , industrial and engineering technology
John O'Neill, MPA, safety and health management
P. Warren Plugge, PhD, construction management

Emeritus Professors
G.W. Beed, EdD
D. Ken Calhoun, EdD

Robert Wieking, PhD
Tim Yoxtheimer, MS

## Lecturers

William Cattin, MS, industrial technology Juan Robertson, PhD, MSET (DM)

## Staff

Susan Van de Venter, assistant to the chair Javier Santillana, instructional and classroom support technician

## Program Objectives and Description

The Department of Industrial and Engineering Technology (IET) offers a master of science degree in Engineering Technology (MSET) having the specific purpose of broadening the technological background of persons holding bachelor of science degrees in the engineering technologies (ET), industrial technologies (IT), and similar or related degrees. The BS degree programs provide the graduate with hands-on, practical knowledge which can be immediately utilized in industry. However, technology is advancing so rapidly that it is necessary to expose the engineering technologist to some of the latest advances, that is, to update their knowledge base. Corporate downsizing, global market pressures, and rapidly expanding technology require a new type of engineering technologist, one that can function comfortably on a changing career path. This requirement produces the need of the technologist to be a lifelong learner. The tools for life long learning and research are the crux of the MSET program. The MSET program is multidisciplinary, giving the graduate student sufficient choices to fit diverse needs.

## 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. All students entering the MSET program are expected to have a background equivalent to that required for the bachelor of science degree in the engineering technologies at CWU. This requires that the candidate have a bachelor's degree from a recognized institution and have at least two quarters of calculus and three quarters of a combination of general physics and chemistry. If English is a secondary language, students must score 550 or more on the TOEFL examination. Deficiencies in the student's undergraduate training as determined by the IET department at the time of matriculation must be removed without graduate credit during the first year of graduate study. Transfer students will be considered using the same criteria, with consideration for equivalent graduate coursework completed elsewhere.

## Application Deadlines and Supporting Materials

Applications and all supporting materials are due by April 1 for fall quarter entrance. Applications will include a statement of background and reason for wishing enrollment into the MSET program, official transcripts, and three letters of recommendation. The applicant must have maintained at least a 3.0 GPA in all coursework attempted during the last 90 quarter hours ( 60 semester hours) of study. Students having a GPA of less than 3.0 may be admitted conditionally at the discretion of the dean of Graduate Studies and Research.

## Program Requirements

The IET department offers a master's degree that requires a minimum of 45 credit hours of graduate study and a thesis. A total of 30 credit hours of required coursework is required of all students. The student is then required to select at least 15 credit hours from a list of technical electives which will then total 45 credit hours. The student must take at least 25 credit hours of coursework at the 500 level. Only nine quarter-credit hours may be transferred before being admitted into the master's 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 MSET will require two academic years of full-time study. The student that is enrolled on a part-time basis will require more than two academic years, the total time required will be a function of course load.

## Graduate Committee

The student must have a three-member graduate committee, selected in consultation with the advisor. Two members must be from the IET department.


## Engineering Technology, MS

## General Requirements

IET 501 - Industrial and Academic Research Methods
. . 4
IET 521 - Product Design and Development 4
IET 525 - Systems Analysis and Simulation . 4
IET 555 - Engineering Project Management . 4
IET 560 - Finite Element Analysis . . . . . . . . . 4
IET 700 - Thesis or Option . . . . . . . . . . . . . . . . 5
Students electing to do a written
examination will select 6 credits of approved coursework in lieu of IET 700.

Required Course Total Credits: 25
Department-approved Technical Electives
The student must select 20 credits
from the following list to complete
a total program of 45 credit hours. . . . . . . 20
CMGT 442, Building Service
Systems (4)
ECON 462, Economics of Energy
Resources and Environment (5)
GEOG 443, Energy Policy (5)
MET 423, Computer-aided Design and Manufacturing (4)
SHM 477 - Environmental
Management (4)
IET 512 - Alternative Energy Systems (4)
IET 522 - Programmable Logic Controller Applications (4)
IET 523 - Emerging Technologies (4)
IET 524 - Quality Control (4)
IET 526 - Engineering Project Cost Analysis (4)
IET 530 - Fundamentals of Lasers (4)
IET 532 - Generation and Transmission of Electrical Power (4)
IET 552 - LEED in Sustainable Construction (4)
IET 577 - Robotics (4)
IET 582 - Plastics and Composites (4)
IET 583 - Ceramics and Composites (4)
IET 592 - Field Studies (4)
IET 595 - Graduate Research (1-6)
IET 596 - Individual Study (3)
IET 599 - Seminar (1)
Elective Total Credits: 20
Program Total Credits: 45

## Industrial and Engineering Technology Courses

IET 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
IET 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.

IET 512. Alternative Energy Systems (4). Study of alternative energy technology and their societal issues. Prerequisite: permission of instructor. Similar to MET 412. Credit for both granted only by department chair.
IET 521. Product Design and Development
(4). Methodology for the design and development of industrial and commercial products from conceptual stage to saleable product. Prerequisites: MET 419 (or equivalent) or permission of instructor. Three hours lecture and two hours laboratory per week.
IET 522. Programmable Logic Controller (PLC) Applications (4). A study of programmable logic controller concepts, components, systems, programming, and applications. Prerequisite: permission of instructor. Lecture and laboratory. Similar to IET 373. Credit for both granted only by department chair.
IET 523. Emerging Technologies (4). A comprehensive examination of recent technological innovations in materials, manufacturing, electronics, and instrumentation, with emphasis on design and application case studies. Prerequisite: permission of instructor.
IET 524. Quality Control (4). Provides foundation for understanding and applying statistical quality control techniques and product reliability procedures. Prerequisite: OMIS 221 or permission of instructor. Similar to IET 380. Credit for both granted only by department chair.
IET 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. Prerequisite: MET 327 (or equivalent) or permission of instructor.
IET 526. Engineering Project Cost Analysis (4). Techniques of economic cost analysis and modeling applied to engineering projects. Similar to IET 301. Credit for both granted only by department chair.
IET 530. Fundamentals of Lasers (4). Overview of laser technology with emphasis on characteristics, safety, and application. Prerequisite: PHYS 113 or permission of instructor. Four hours lecture per week.
IET 532. Generation and Transmission of Electrical Power (4). A study of the generation and transmission of electrical energy. Prerequisite: EET 332 or equivalent. Similar to EET 432. Credit for both granted only by department chair.
IET 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. IET

552 and CMGT 552 are equivalent courses. Credit for both granted only by department chair.
IET 555. Engineering Project Management
(4). Project-based synthesis used in engineering project management. Topics include bidding, contract management, scheduling, cost estimating and control, logistics, conflict management, team building, negotiating, and risk assessment. Prerequisite: permission of the instructor. Cross listed with IET 455. Instructor consent should be based on student industrial experience and career goals.
IET 560. Finite Element Analysis (4). Computerized modeling of structural, vibrational, and thermal design problems. Prerequisites: IET 160, MET 426, or permission of instructor. Lecture and laboratory. Similar to MET 420. Credit for both granted only by department chair.
IET 577. Robotics (4). Microprocessor applications in robotics, automated systems, and digital control. Prerequisites: EET 375 and EET 342 or permission of instructor. Lecture and laboratory. Similar to EET 477. Credit for both granted only by department chair.
IET 582. Plastics and Composites (4). Composition, characteristics, and classifications of plastics and composite materials incorporating design, industrial applications, processing, and fabrication. Prerequisites: CHEM 111/111L, or CHEM 181/181L, or permission of the instructor. Similar to MET 382. Credit for both granted only by department chair.
IET 583. Ceramics and Composites (4). Composition characterization and classification of ceramics and related composite materials incorporating industrial applications, processing, and fabrication. Prerequisites: CHEM 181, or CHEM 111, or permission of the instructor. Similar to MET 483. Credit for both granted only by department chair.
IET 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. Prerequisites: within 10 credits of graduation or permission of the instructor and admission to the Master of Science in Engineering Technology.
IET 592. Field Studies (1-10). Prerequisite: faculty advisor and department approval. No more than 10 credits may be taken toward the master's degree.
IET 595. Graduate Research (1-6). Conduct research or use for program evaluation activity. Prerequisite: permission of advisor.

Maximum of 6 credits may be included on the Course of Study for the master's degree. IET 596. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
IET 598. Special Topics (1-6).
IET 599. Seminar (1-5). May be repeated.
IET 700. Thesis or Option (6). Designed to credit and record supervised study for the master's thesis, non-thesis project, or examination. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## INFORMATION TECHNOLOGY AND ADMINISTRATIVE MANAGEMENT DEPARTMENT

Ellensburg
Shaw-Smyser Hall, room 223
509-963-2611
Fax: 509-963-1721
www.cwu.edu / ~itam/
The information technology and administrative management department does not offer any graduate degrees at this time.

## Information Technology Course

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.

## Marketing Education Courses

ME 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
ME 502. Teaching Applied Math—Advanced (2). Instruction and teaching strategies for upper units of applied math in career and technical education. BSED 502 and ME 502 are equivalent courses. Students may not receive credit for both.
ME 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's degree.
ME 596. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
ME 598. Special Topics (1-6). May be repeated.
ME 599. Seminar (1-5). May be repeated. ME 599. Seminar (1-5). May be repeated.

## LANGUAGE, LITERACY, AND SPECIAL EDUCATION DEPARTMENT

Ellensburg
Black Hall, room 205
509-963-2049
Fax: 509-963-1162

The Department of Language, Literacy, and Special Education prepares socially responsible practitioner scholars to work and learn within diverse contexts; fostering language, literacy, and learning for all.

## Faculty and Staff

Chair
Craig Hughes, PhD

## Professors

Carol Butterfield, PhD, elementary education, reading, bilingual education, TESL
Dan Fennerty, EdD, special education
Gail Goss, EdD, reading
Connie Lambert, PhD, special education
David Majsterek, EdD, special education, early childhood education
Alberta Thyfault, PhD, special education

## Associate Professors

Janet Finke, PhD, literacy
Craig Hughes, PhD, bilingual education, TESL
Terrance McCain, PhD, bilingual education, TESL
Andrea C. Sledge, PhD, literacy

## Assistant Professors

Yukari Amos, PhD, bilingual education YiShan Lea, EdD, bilingual education, TESL Cristina Santamaria, PhD, special education Janet Spybrook, EdD, special education Sharryn Walker, PhD, literacy Sandra Wentworth, PhD, special education

## Staff

Nancy Schnebly

## 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.

## Master of Education: Reading Specialist

The following college-level courses should be taken prior to enrollment in the specialization courses and may not be counted as part of the required credits in the reading specialist program:

Basic Reading Course
Basic Language Arts Course
Basic Children's Literature Course

Prerequisite: A minimum of one year of successful, contracted teaching experience in a K-12 classroom setting is required for admission to the Reading Specialist Program. One of the three required recommendation forms for admission to the Reading Specialist Program must come from the applicant's current or most recent principal or designee.

Program: The student will complete at least 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. 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 15 credits.
Required Courses
Education Foundations and ResearchCourses10
*EDCS 424 - Reading in the Content
Fields. ..... 3

EDRD 521 - Reading in the Elementary School
EDRD 523 - Su
EDRD 525 - Psychology of Reading ....... 3
EDRD 526 - Diagnosis of Reading
Difficulties
.3
EDRD 528 - Remediation of Reading
Difficulties
. 3
EDRD 592 - Practicum: Diagnosis and
Remediation of Reading Difficulties ..... 3
EDRD 700 - Master's Thesis, Project Study, and/or Examination. . . . . . . . . . . . . . . . . . .
Advisor-approved Electives selected from, but not limited to the list below . . . . . . . . . . . 7 EDRD 418 - Reading and Linguistics (3) EDRD 419 - Storytelling Techniques (3) EDBL 440 - Reading English as a Second Language (3)
EDAD 584 - School Personnel (5)
EDAD 599 - Seminar (1-5)
EDEL 531 - Teaching Elementary
School Language Arts, Advanced (3)
EDRD 520 - Advanced Teaching of Reading: Methods and Materials (3)

Program Total Credits: 45
*If this course is completed prior to admission to the graduate program, see an advisor for an appropriate course substitution.

## Master of Education: Special Education

The master of education with specialization in special education is designed to allow students to pursue graduatelevel study in the various areas of special education.

Prerequisites: Students must have an institutional endorsement in special education. Students without an institutional endorsement will be required to complete the endorsement prior to the final exam for their master's degree. Anyone wanting to complete a master's degree without a special education teaching certificate must have special education faculty permission.

Program: Students will complete at least 45 credits of approved graduate level coursework. The course of study will be developed in consultation with their major advisor from special education and filed with the Office of Graduate Studies and Research.

## Required Courses

Education Foundation and Research Courses.
EDSE 501 - Orientation, Foundations, and Issues.
EDSE 503 - High Prevalence Categories of Exceptionality . 3
EDSE 512 - Educational Rights of Individuals with Disabilities.
.3
EDSE 521 - Functional Behavioral and Instructional Assessment. 3

EDSE 522 - Collaboration/Consultation . . . . 3
EDSE 523 - Curriculum for Students with Special Needs.

EDSE 585 - Administration and
Supervision of Programs for Individuals with Disabilities.
. 3
EDSE 684 - Internship in Professional Affiliated Disciplines .2-12
EDSE 700 - Master's Thesis, Project Study, and / or Examination . .6

Area of Concentration (by Advisement)
EDSE 583 - Seminar: Research Special Education
EDSE 597 - Graduate Research in Special Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

Program Total Credits: 46

## 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 could be applied to the completion of endorsement requirements at Central.

## Required Courses

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

Total Credits: 12

## Bilingual Education Courses

EDBL 514. Introduction to Linguistic Diversity in Education (3). This course provides mainstream classroom teachers with the needed background theory to better the educational experience of linguistically diverse students.
EDBL 518. Studies and Problems in Educational Linguistics (2). Identification and study of problems related to educational linguistics and secondlanguage instruction. Prerequisites: EDBL 433 or English as a Second Language
(ESL) methods course, or equivalent, and classroom experience.
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 with the needed background information and methodology to better the educational experience of ESL students by using classroom-based assessment and other resources.
EDBL 556. Bilingual Education Curriculum
(3). Planning, implementation, and evaluation of the bilingual education program curriculum for the elementary school. Prerequisite: EDBL 435 or permission of instructor.
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. Prior approval is required. Grade will 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. Formerly ED 591.
EDBL 596. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDBL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDBL 598. Special Topics (1-6).
EDBL 599. Seminar (1-5). May be repeated.
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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either $S$ or $U$. May be repeated for up to 6 credits.

## Reading Education Courses

EDRD 520. Advanced Teaching of Reading: Methods and Materials (3). An in-depth research-based analysis of reading methods and materials used in elementary and secondary settings. Prerequisites: a reading methods course at the undergraduate level and teaching experience.
EDRD 521. Reading in the Elementary School (4). Contemporary influences in reading instruction in American elementary schools. Prerequisites: a
basic undergraduate reading course and classroom experience or permission.
EDRD 523. Survey of Research in Reading (3). Identification and in-depth study of problems related to reading instruction. Recent reading research is pursued with emphasis on classroom application. Prerequisites: reading methods course and teaching experience.
EDRD 525. Psychology of Reading (3). Principles of learning and readiness, perception, psychological and physiological aspects of reading. Prerequisites: a reading methods course, a basic psychology of learning course, or permission of instructor. EDRD 525 and PSY 525 are equivalent courses.
EDRD 526. Diagnosis of Reading Difficulties
(3). Designed to inform practicing teachers about materials and procedures for diagnosing and interpreting reading problems of students. Prerequisites: an undergraduate reading methods course and teaching experience.
EDRD 528. Remediation of Reading Difficulties (3). Techniques and materials for remediating children's reading difficulties. Prerequisite: EDRD 526. Should be taken concurrently with EDRD 592.
EDRD 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. Grade will be $S$ or $U$.
EDRD 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.
EDRD 592. Practicum: Diagnosis and Remediation of Reading Difficulties (3). Supervised experience working with one or more students. Includes the preparation of a case study. Prerequisite: EDRD 526. Grade will be $S$ or $U$. Should be taken concurrently with EDRD 528.
EDRD 596. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
EDRD 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDRD 598. Special Topics (1-6).
EDRD 599. Seminar (1-5). May be repeated.
EDRD 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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either $S$ or $U$. May be repeated for up to 6 credits.

## Special Education Courses

EDSE 501. Orientation, Foundations, and Issues (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. Prerequisite: teaching experience or permission of the instructor.
EDSE 502. Survey of Exceptionalities (3).
Designed to introduce the education professionals to areas of exceptionality including definitions, identification, prevalence causes, assessment characteristics, educational considerations/ interventions, and lifespan considerations. The role of special education in educationrelated services and programming is also addressed. Prerequisite: graduate standing.
EDSE 503. High Prevalence Categories of Exceptionality (3). Etiology, social issues, and management strategies for students with mental retardation, learning disabilities, and behavioral disorders. Prerequisite: EDSE 501 or permission of instructor.
EDSE 510. Instructional Management Principles (3). Applied Behavior Analysis (ABA) principles will be presented. Their interpretation in a range of research will be presented.
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 521. Functional Behavioral and Instructional Assessment (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. Prerequisite: EDSE 501 or permission of the instructor.
EDSE 522. Collaboration/Consultation (3).
Designed as a reflective process for the teacher to identify specific strengths in the areas of inter/intra personal skills. Prerequisite: EDSE 501 or permission of the instructor.
EDSE 523. Curriculum for Students with Special Needs (3). Focuses on selecting and implementing curricular adaptations to facilitate the participation of students with special needs in the regular classroom. Prerequisite: EDSE 501, EDSE 521, or permission of instructor.
EDSE 581. Current Issues in Special Education (1). May be repeated. Graduate standing required.
EDSE 583. Seminar: Research Special Education (2). Advanced study of an approved special education issue or topic, under the guidance of a professor, including original research. Exchanging results by
informal lectures, reports, and discussions. Prerequisites: EDF 510 and EDSE 597. May be repeated for credit under different topics: assessment, instruction, early intervention, behavior, low incidence/ severe-profound, and transition.
EDSE 585. Administration and Supervision of Programs for Individuals with Disabilities (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. Prerequisites: EDSE 501, teaching experience, or permission of instructor.
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. Prior approval is required. Grade will 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 596. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EDSE 597. Graduate Research in Special Education (4). Specialty area research and research report preparation. Prerequisites: EDSE 501, E D S E 503, EDF 510, and permission of instructor.
EDSE 598. Special Topics (1-6).
EDSE 599. Seminar (1-5). May be repeated.
EDSE 682. Internship in Special Education School Administration (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. Grade will be $S$ or U. Credits earned in an administrative internship will not exceed a total of 16 . Not more than 4 credits are applicable to the credit requirements for the master's degree.
EDSE 683. Pre-autumn Internship in Special Education School Administration (4). Emphasis is on the responsibilities of special education prior to and during the opening of the school year. Prerequisite: permission of the director of the administrator preparation board. Combines with EDSE 682 for 16 total credits in administrative internship. Grade will be S or U .
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. Prerequisites: EDSE 501, EDSE 503, EDF 510, permission of graduate committee chair, and experience with individuals with disabilities.
EDSE 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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## NUTRITION, EXERCISE, AND HEALTH SCIENCES DEPARTMENT

Ellensburg
Dorothy Purser Hall, room 101
509-963-1912
Fax: 509-963-1848
www.cwu.edu/ ~nehs
See Web site for how these programs could be used for educational and career purposes.

Faculty and Staff
Chair
Vincent M. Nethery, PhD
Graduate Program Director
Leonardo J. D'Acquisto, EdD

## Professors

Ethan R. Bergman, PhD, RD, dietetics, sports nutrition
Leonardo J. D'Acquisto, EdD, sport physiology, kinesiology, human anatomy David L. Gee, PhD, nutrition \& metabolism, nutrition and chronic diseases, sports nutrition
Robert McGowan, PhD, clinical and exercisesport psychology
Vincent M. Nethery, PhD, clinical physiology, sport physiology, environmental physiology, human anatomy.

Associate Professors
Timothy R. Burnham, PhD, clinical physiology, sport physiology, human anatomy
Susan Hawk, PhD, RD, dietetics, clinical nutrition
Keith Monosky, MPM, EMT-P, emergency medical services management, health policy Harry Papadopoulos, PhD, clinical physiology, sport physiology, physical activity interventions

## Assistant Professors

Susan Adams, MS, RD, food service management

Virginia Bennett, PhD, RD, cultural nutrition, developmental nutrition
Linda Cashman, MS, RD, dietetics
Kelly Kerr-Pritchett, PhD, RD sports nutrition, clinical nutrition, eating disorders
Robert Pritchett, PhD, sport physiology, environmental physiology,

## Staff

Rhonda Busch-Gehlen, assistant to the chair Lucinda Engel, instructional classroom support technician - food science
Edith Fowler, office manager
Lori Hauser, Office assistant, EMS-
Paramedicine

## Department Information

The graduate programs in Nutrition, Exercise, and Health Sciences are designed to provide knowledge and expertise for students seeking a terminal degree for entry-level positions in a variety of private and public settings, as well as for positions at community college and other tertiary levels. They also serve the needs of students intending to pursue higher-level graduate study in doctoral or professional programs. Human functioning is the overriding theme of all curricula offerings. The master of science degrees offered by NEHS 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 advisor approved elective courses.

## 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 their selected program within the Department of Nutrition, Exercise, and Health Sciences (see individual programs). Conditional or probationary admission may be granted in certain circumstances.

## Master of Science - Exercise Science

The master of science degree in Exercise Science prepares students for careers in higher education, cardiac rehabilitation, clinical settings, corporate and community fitness/ wellness centers, and athletic development programs. The curriculum also prepares individuals for further study at doctoral or professional program level. In addition to the general university requirements for admission to graduate school, prospective candidates must hold a degree in exercise science or a closely related area of study. Students majoring in other disciplines
including biology, chemistry, and nutrition are encouraged to apply, however some undergraduate courses covering the physiology of exercise may be required. Minimum undergraduate requirements include completion of courses in anatomy, physiology, and exercise physiology. Other classes in cell biology, zoology, biochemistry, statistics, fitness assessment, kinesiology, and sport nutrition are strongly recommended. A maximum of six (6) credits each of EXSC 590, EXSC 595, and EXSC 596 are permitted on the course of study.

Required Core Courses
EXSC 510 - Issues in Exercise Science .3
EXSC 557 - Research Methods and
Design in Exercise and Nutritional
Science . . . . . . . . . . . . . . . . . . . . . . . . . . .
EXSC 560 - Inferential Statistics in Exercise
EXSC 560 - Inferential Statistics in Exercise and Nutritional Sciences . . . . . . . . . . . . . .
EXSC 700 - Master's Thesis, Project Study and / or Examination Credits: (1-6) . . . . . . . 6

## Electives

Advisor-approved EXSC Electives . . . . . 14-24
Electives in related disciplines . . . . . . . . . 5-18
Total Credits: 45

## Master of Science Nutrition

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

EXSC 556 - Statistical Applications in
Exercise Science and Nutrition .
EXSC 557 - Research Methods. .....  3
NUTR 700- Master's Theses (or option) . ..... 6
NUTR 540 - Nutrition Education ..... 3
NUTR 543 - Advanced Nutrition andBiochemistry3
NUTR 545 - Advanced Studies in
Developmental Nutrition ..... 4
NUTR 547 - Nutrition Update. ..... 3
Approved Electives. ..... 19

## Exercise Science Courses

EXSC 510. Issues in Exercise Science (3).
Examination of issues in exercise science. EXSC 551. Advanced Physiology of Exercise I: Metabolism and Skeletal Muscle (3). Application of physiological principles to the regulation of cellular and organic processes during exercise. Regulation, control, and adaptation of metabolic pathways. Response and adaptation of skeletal muscle to both acute and chronic exercise. Prerequisite: PE 450. Formerly PE 551. Students may not receive credit for both.
EXSC 552. Advanced Physiology of Exercise II: Pulmonary and Cardiovascular Systems (3). Responses and adaptations of cardiovascular and pulmonary systems to acute and chronic exercise. Neural and humeral mechanisms of control during exercise. Prerequisite: EXSC 551. Formerly PE 552. Students may not receive credit for both.
EXSC 553. Laboratory Techniques in Stress Physiology (5). Techniques for the assessment of human physiological characteristics during rest and exercise stress. Prerequisites: EXSC 551 and EXSC 552 , or permission of instructor. Two hours lecture and two hours lab per week. Formerly PE 553. Students may not receive credit for both.
EXSC 555. Environmental Stress and Human Performance (3). Influence of a variety of environmental factors on human performance. Adaptations to environmental stressors through constant exposure. Prerequisites: EXSC 551, EXSC 552, or permission of instructor. Formerly PE 555. Students may not receive credit for both.
EXSC 556. Ergogenic Aids and Human Performance (3). Use of physical, physiological, pharmacological, and psychological aids to improve human performance. Prerequisites: EXSC 551, EXSC 552, or permission of instructor. Formerly PE 556. Students may not receive credit for both.
EXSC 557. Research Methods and Design in Exercise and Nutritional Science (4). Concepts of the scientific research process including selection of a research topic, literature review, project methods and design, hypothesis testing, and research proposals for exercise and nutritional science will be studied. Prerequisite: EXSC 560.

EXSC 559. Applied Kinesiology (3). Advanced kinesiological analysis of exercise programs, sport skills, and skills for daily living. Prerequisite: EXCS 356.
EXSC 560. Inferential Statistics in Exercise and Nutritional Sciences (4). Concepts of quantitative procedures including correlation, regression, $t$-tests, and ANOVA's up to two-way will be studied with results statements generated using data sets drawn from research in these disciplines. Students may not receive credit for both HPE 560 and EXSC 560.

EXSC 562. Clinical Exercise Physiology (3).
This course introduces students to exercise principles and applications as they relate to individuals with chronic diseases and disabilities. Prerequisites: EXSC 551, or 552, or by permission of the instructor. Formerly PE 562. Students may not receive credit for both.
EXSC 564. Gross Human Anatomy: Cadaver Dissection (1). Gross anatomy dissection of cadaver. One lab session weekly. Can be repeated for up to 2 credits during the same quarter. Formerly PEHL 552.
EXSC 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. Prior approval is required. Grade will be $S$ or $U$. Prerequisite: permission of instructor.
EXSC 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.
EXSC 596. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
EXSC 598. Special Topics (1-5).
EXSC 599. Seminar (1-5). May be repeated for credit.
EXSC 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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. May be repeated for up to 6 credits. Grade will be either $S$ or $U$.

## Nutrition Courses

NUTR 540. Nutrition Education (3).
Principles and procedures in nutrition education for public and private agencies. Program and curriculum planning and evaluation. Emphasis on current research in the field.
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.
NUTR 543. Advanced Nutritional Biochemistry (3). Advanced study of the effects of macro and micro-nutrients on human metabolism. Prerequisite: NUTR 443.

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 or equivalent.
NUTR 547. Nutrition Update (3). Recent advances in nutrition research. Advanced study of selected nutrition problems. Prerequisite: NUTR 245 or permission. With permission, may repeat every other year.
NUTR 595. Graduate Research (1-10). Development and investigation of an approved laboratory or field research problem. Prerequisite: permission of the instructor. May be repeated. Maximum of 6 credits may be included in MS course of study.
NUTR 596. Individual Study (1-6).
Prerequisite: permission of the instructor.
NUTR 598. Special Topics (1-5).

## OCCUPATIONAL EDUCATION

Faculty
Jan Bowers, PhD, Family and Consumer Science
Bob Wieking, PhD, Industrial Education Technology
Robert Lupton, PhD, Retail Management and Technology

## Occupational Education Courses

OCED 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. OCED 551. Principles of Occupational Education (3). Formerly BSED 551. Students may not receive credit for both.


# PHYSICAL EDUCATION, SCHOOL, AND PUBLIC HEALTH DEPARTMENT 

Ellensburg
Purser Hall, room 101
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Fax: 509-963-1848
www.cwu.edu / ~pesph
See Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Kenneth Briggs, EdD
Director of Graduate Studies
Stephen C. Jefferies, PhD
509-963-2241

## Professors

Kenneth Briggs, EdD, health education
Stephen C. Jefferies, PhD, physical education
Melody S. Madlem, PhD, CHES health education
Kirk Mathias, EdD, physical education
Robert McGowan, PhD, physical education, athletic administration

## Assistant Professors

Heidi Henschel Pellett, EdD, physical education
Jennifer Lehmbeck, MPH, PhD, health education
Rebecca Pearson, MPH, PhD, health education
Mark Perez, PhD, education
Stefan Ward, PhD, physical education
Therese Young, MA, dance, physical education

## Emeritus Professors

Gary Frederick, EdD, physical education, athletic administration
Andrew P. Jenkins, PhD, health education

## Staff

Rhonda Busch-Gehlen, assistant to the chair Edith Fowler, PESPH department 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.

## 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 education and health education. 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 Education3

HPE 557 - Research Methods and Design in Health and Physical Education
HPE 560 - Statistical Applications in Health and Physical Education4

HPE 700 Ma
HPE 700 - Master's Thesis, Project Study and / or Examination

## Electives

Advisor-approved electives. . . . . . . . . . . . . . 28
Total Credits: 45

## Athletic Administration Specialization, MS Health and Physical Education

The Athletic Administration specialization is focused on the development of skills and knowledge related to the administration of athletics especially in public school settings. It is intended for individuals who coach, or are interested in exploring possibilities for becoming, school athletic directors. 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.

Individuals wishing to specialize in athletic administration should contact the Department of Physical Education, School, and Public Health for program availability.

## Required Courses

HPE 510 - Issues in Health and Physical Education $\qquad$ . 3
HPE 557 - Research Methods and Design in Health and Physical Education . . . . . . . . 4 HPE 560 - Statistical Applications in Health and Physical Education. .4

HPE 700 - Master's Thesis, Project Study, and/or Examination ...................... 6

## Electives

Advisor-approved Electives28

## Health Education Courses

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.
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. Prior approval is required. Grade will be $S$ or U.
HED 591. Workshop (1-6).
HED 596. Individual Study (1-6).
Prerequisite: permission of instructor. May be repeated.
HED 598. Special Topics (1-6).
HED 599. Seminar (1-5). May be repeated for credit under different titles.

## Health and Physical Education Courses

HPE 510. Issues in Health and Physical Education (3). Examination of current issues, problems, and challenges affecting health and physical education professions.
HPE 546. Advanced Administration of Athletics (3). Principles and practices of athletic administration: budgeting, resource control, personnel development, and alumni relations. Prerequisite: graduate or post baccalaureate status.
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. Prerequisite: graduate student or senior status. May be repeated up to 6 credits.
HPE 557. Research Methods and Design in Health and Physical Education (4). Introduction to the process of planning and understanding research. Prerequisite: satisfactory completion of a basic statistics course.
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. EXSC 560 and HPE 560 are equivalent courses but are not crosslisted.
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. Cross listed with RT 484 and PE 484.

HPE 575. Principles of Admin in Health and Physical Education (3).
HPE 577. Physical Education Curriculum Design (3). Design and creation of a physical education curriculum that meets state and national standards.
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. Formerly PEHL 578.
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. Formerly PEHL 579.

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. Formerly PEHL 580.
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: acceptance into HHPN graduate program or instructor permission. Formerly PEHL 581.
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.
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.
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. Prerequisite: permission of major advisor.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either $S$ or $U$. May be repeated for up to 6 credits.

## Physical Education Courses

PE 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
PE 521. Advanced Football Coaching (3).
PE 523. Advanced Basketball Coaching (3).
PE 524. Advanced Track Coaching (3).
PE 525. Advanced Baseball Coaching (3).
PE 530. Gender in Sport (3). Role of women and men in sport and analysis of gender discrimination with models for change.
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.
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.
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. Prior approval is required. Grade will be $S$ or $U$.
PE 591. Workshop (1-6).
PE 596. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated. PE 598. Special Topics (1-6).
PE 599. Seminar (1-5). May be repeated for credit under different titles.


# TEACHING ELEMENTARY, ADOLESCENT, AND YOUNG CHILDREN <br> DEPARTMENT <br> (TEACH) 

Ellensburg
Black Hall, room 101
509-963-1464
Fax: 509-963-1162
www.cwu.edu / ~education
See the Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
David Shorr, PhD

## Professors

Susan Donahoe, PhD, elementary education David Shorr, PhD, early childhood education

## Associate Professors

Susan Donahoe, PhD, elementary education Cory Gann, PhD, early childhood education Tina Georgeson, EdD, early childhood and elementary education
Deborah Haskell, PhD, TEACH contributions middle-level programs and early childhood education

## Assistant Professors

Khodi Kaviani, PhD, elementary education Teri Walker, EdD, early childhood education

## Lecturers

Susan M. Connolly, MEd, lecturer Leslie Elsaesser, EdD, senior lecturer Kristin Fisher, MEd, senior lecturer Melanie Kingham, MEd, senior lecturer Mary Pack, EdD, lecturer

## Staff

Tina Clark, program support supervisor
The Department of Teaching Elementary, Adolescent, and Young Children does not offer any graduate degrees at this time.

## Elementary Education Courses

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. Prior approval is required. Grade will be $S$ or $U$.
EDEL 591. Workshop (1-6). 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).
Prerequisite: permission of instructor. May be repeated.
EDEL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. May be repeated for credit. Maximum of 10 credits may be included on Course of Study for the master's degree.
EDEL 598. Special Topics (1-6).
EDEL 599. Seminar (1-5). May be repeated.
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. Prerequisite: EDF 510 and permission of chair of student's graduate faculty supervisory committee. Grade will be either $S$ or U. May be repeated for up to 6 credits.

## COLLEGE OF THE SCIENCES

## ANTHROPOLOGY AND MUSEUM STUDIES DEPARTMENT

Ellensburg Campus
Farrell Hall, room 309

509-963-3201
Fax: 509-963-3215
www.cwu.edu / ~anthro
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
Kathleen Barlow, PhD

## Professors

John A. Alsoszatai-Petheo, PhD, biological anthropology
Tracy J. Andrews, PhD, sociocultural anthropology, ethnicity, medical and ecological anthropology, gender; Native North America
Anne S. Denman (emeritus), PhD, American culture, intercultural issues
Steve Hackenberger, PhD, archaeology, cultural resource management, North America and Caribbean
William C. Smith (emeritus), PhD, archaeology, museum studies, comparative world prehistory

## Associate Professors

Kathleen Barlow, PhD, learning and culture, psychological anthropology, museum anthropology, art and aesthetics, regional ethnography
Loran E. Cutsinger, PhD, cultural
anthropology, informal economy, gender, globalization, transnationalism; British 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, Black Gibbons; China
Penglin Wang, PhD, linguistic and cultural anthropology; East and Central/Inner Asia, China

## Assistant Professors

Mary Lee Jensvold, PhD, primate behavior and ecology, communication, CHCI
Joseph Lorenz, PhD, biological anthropology, anthropologist genetics, DNA, ancient DNA, genetics of American Indians, North America
Bill W. Warner Wood, PhD, political ecology and environmentalism, museum studies, practice theories and qualitative methodologies, Greater Mexico, and Latin America

## Staff

Penelope Anderson, secretary senior

## Department Information

Anthropology jointly coordinates the master of science degree program in Resource Management with the geography department. For further information, see Resource Management.

## Anthropology Courses

ANTH 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
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. Prerequisites: ANTH 120 or GEOG 107 or permission of the instructors. ANTH 427/527 and GEOG 427 / 527 are equivalent courses. Graduate credit requires an additional research paper to be specified in syllabus.
ANTH 596. Individual Study (1-6).
Prerequisite: permission of department chair.

## BIOLOGICAL SCIENCES DEPARTMENT

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509-963-2731
Fax: 509-963-2730
www.cwu.edu / ~biology
See Web site for how this program could be used for educational and career purposes.

## Faculty and Staff

Chair
Paul W. James, PhD

## Professors

Daniel D. Beck, PhD, physiological ecology and herpetology
David M. Darda, PhD, evolutionary vertebrate morphology, herpetology
Kristina A. Ernest, PhD, terrestrial and community ecology
Paul W. James, PhD, ecology and fisheries biology
Sheldon R. Johnson, PhD, zoophysiology, mammalogy (emeritus)
Robert E. Pacha, PhD, microbiology (emeritus)
Linda A. Raubeson, PhD, evolutionary biology and genetics
Stamford D. Smith, PhD, entomology (emeritus,)
Lixing Sun, PhD, behavioral ecology and evolution

## Associate Professors

Tom R. Cottrell, PhD, plant ecology
James E. Johnson, PhD, mycology, systematics
Holly C. Pinkart, PhD, microbiology, microbial ecology
Mary E. Poulson, PhD, plant physiology
Ian J. Quitadamo, PhD, science education, cell and molecular biology
R. Steven Wagner, PhD, conservation genetics and herpetological science

## Assistant Professors

Lucinda Carnell, PhD, molecular behavioral genetics
Jennifer Dechaine, PhD, plant biology
Blaise Dondji, PhD, human physiology, microbiology, parasitology, immunology
Jason T. Irwin, PhD, animal physiology
Daniel J. Selski, PhD, developmental neurobiology
Gabrielle Stryker, PhD, microbiology, immunology, and parasitology

## Lecturers

Clay Arango, PhD
Lucy Bottcher, PhD
Raymon Donahue, PhD

## Staff

Jonathan Betz, instructional classroom support technician

Mary Bottcher, instructional classroom support technician
Darlene Boykiw, office assistant Kariann Linnell, secretary supervisor Lee Longmore, engineering technician Jody Scheffelmaier, science instructional technician
Jeff Wilcox, engineering technician

## Program Description

The graduate program in Biology is designed to provide training and expertise for those needing a terminal degree for entrylevel 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, which are:

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.

## Biology, MS

Program Coordinator
Lixing Sun, PhD
Science Building, room 338D

## 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.

## Required Courses

BIOL 501 - Research Methods and
Techniques
BIOL 502 - Research Proposal Presentations. 2
BIOL 505 - Current Topics in Biology. . . . . . . 6
BIOL 595 - Graduate Research . . . . . . . . . . . . 10
BIOL 602 - Research Presentations . . . . . . . . . 2
BIOL 700 - Master's Thesis, Project Study,
and/or Examination.
. 6
Total Core Credits: 30

## MS in Biology

Core Courses . . . . . . . . . . . . . . . . . . . . . . . . . . 30
Electives selected by advisement . . . . . . . . . 15
Total Credits: 45

## Specialization in Biomedical Sciences

## Program Coordinator

James E. Johnson, PhD
Science Building, room 338J
The Central Washington University Master of Sciences in Biology with a Specialization in Biomedical Sciences degree program is a professional as well as a preprofessional course of study designed for students seeking careers in biomedical research or to help students become stronger applicants to medical school or other professional programs. Students who have already completed their course requirements or admission to the medical school can strengthen their candidacy by demonstrating their performance in some of the same courses taken by first-year medical students at the Pacific Northwest University of Health Sciences (PNWU) Doctor of Osteopathic Medicine Program and broadening their background as scientists by conducting an original research project with faculty at CWU while earning a master of science degree in biology.

Preferred admission to the Pacific Northwest University of Health Sciences Doctor of Osteopathic Medicine program will be granted to students who:

Specialization in Biomedical Sciences with a B average or higher

- have a minimum MCAT score of 22
- are approved by the admissions interview committee at PNWU.


## Financial Obligations

Because this is a self-support program, no tuition waiver programs apply and additional continuing education tuition applies.

## Required Courses

MS Biology Core . . . . . . . . . . . . . . . . . . . . . . . 30
BIOL 521 - Cellular Science I . . . . . . . . . . . . . . 4
BIOL 522 - Cellular Science II . . . . . . . . . . . . . . 4
BIOL 523 - Cellular Science III. . . . . . . . . . . . . . 4
BIOL 553 - Medical Physiology I. . . . . . . . . . . . 4
BIOL 554 - Medical Physiology II . . . . . . . . . . 4
BIOL 555 - Medical Physiology III . . . . . . . . . 4
Total Credits: 54

## PNWU Admission Courses

The following elective courses are not required for completion of the Specialization in Biomedical Sciences, but are required for preferred admission status to the PNWU Doctor of Osteopathic Medicine Program.
BIOL 556 - Gross and Developmental
Anatomy I
BIOL 557 - Gross and Developmental
Anatomy II .
BIOL 558 - Gross and Developmental
Anatomy III .

## Biology Courses

BIOL 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. Formerly BISC 500.
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.
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.
BIOL 505. Current Topics in Biology (2). Discussion of specific topics in biology from readings in journals, books, and other materials. May be repeated for credit up to a maximum of 10 credits.
BIOL 520. Developments in Cellular Biology (3). Ways in which new information is being integrated with the basic concepts of cellular and molecular biology. Prerequisite: graduate standing or permission. Formerly BISC 513. Students may not receive credit for both.
BIOL 521. Cellular Sciences I (4). The first quarter of a three-quarter series covering the biochemistry, nutrition, molecular
biology, immunology, and genetics of cells as they relate to both normal body function and pathological processes. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 522. Cellular Sciences II (4). The second quarter of a three-quarter series covering the biochemistry, nutrition, molecular biology, immunology, and genetics of cells as they relate to both normal body function and pathological processes. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 523. Cellular Sciences III (4). The third quarter of a three-quarter series covering the biochemistry, nutrition, molecular biology, immunology, and genetics of cells as they relate to both normal body function and pathological processes. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 553. Medical Physiology I (4). The first quarter of a three-quarter series covering normal human physiology and neurophysiology with special emphasis on integration, control, and pathophysiology. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 554. Medical Physiology II (4). The second quarter of a three-quarter series covering normal human physiology and neurophysiology with special emphasis on integration, control, and pathophysiology. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 555. Medical Physiology III (4). The third quarter of a three-quarter series covering normal human physiology and neurophysiology with special emphasis on integration, control, and pathophysiology. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 556. Gross and Developmental Anatomy I (4). The first quarter of a threequarter series covering the macroscopic structure of the human body using a regional approach. Relationships between gross anatomy, development, and pathological conditions are emphasized. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 557. Gross and Developmental Anatomy II (4). The second quarter of a three-quarter series covering the macroscopic structure of the human body using a regional approach. Relationships between gross anatomy, development, and pathological conditions are emphasized. Prerequisite: acceptance into the Biomedical Sciences Specialization.
BIOL 558. Gross and Developmental Anatomy III (6). The third quarter of a three-quarter series covering the macroscopic structure of the human body using a regional approach. Relationships between gross anatomy, development, and pathological conditions are emphasized. Prerequisite: acceptance into the Biomedical Sciences Specialization.

BIOL 565. Advanced Animal Behavior
(5). Advanced knowledge in the study of animal behavior. Prerequisite: graduatestudent status. Three hours lecture, two hours laboratory, one hour independent study per week. Formerly BISC 565. BIOL 465/565 and PSY 565 are equivalent courses. Students may not receive credit for both PSY 565 and either BIOL 465 or BIOL 565 or BISC 565.
BIOL 566. Conservation Biology (5). An introduction to the theory and practice of conservation biology, with emphasis on case studies. Prerequisite BIOL 360 and graduate standing or permission of instructor. Two hours lecture, one hour discussion, and four hours lab or field study per week. Weekend field trips may be required. Students may not receive credit for both BIOL 466 and BIOL 566. Formerly BISC 540.
BIOL 570. Developments in Organismic Biology (3). Ways in which new information is being integrated with the basic concepts of evolutionary and systematic biology. Prerequisite: graduate standing or permission. Formerly BISC 511. Students may not receive credit for both.
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. Prior approval is required. Grade will be $S$ or U. Formerly BISC 590.
BIOL 592. Biological Field Studies (1-15). Individual or group off-campus experience in the field study of biological phenomena. Prerequisite: post-graduate standing, permission of instructor. May be taken more than once for a maximum of 15 credits. Grade will be S or U. Formerly BISC 593.
BIOL 595. Graduate Research (1-10).
Organization or conduct of an approved laboratory and / or field research problem. Prerequisite: permission of instructor. May be repeated. Maximum of 10 credits may be included on course of study for the Master's degree.
BIOL 596. Individual Study (1-6).
Prerequisite: permission of instructor.
Formerly BISC 596/BOT 596/ZOOL 596.
BIOL 598. Special Topics (1-6). Formerly BISC 598/BOT 598/ZOOL 598.
BIOL 599. Seminar (1-5). Discussion of specific topics from readings in biological journals, books, and other materials. May be repeated for credit to a maximum of 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.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## CHEMISTRY DEPARTMENT

Ellensburg
Science Building, room 302
509-963-2811
Fax: 509-963-1050
www.cwu.edu / ~chem
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
JoAnn Peters, PhD

## Professor

Martha J. Kurtz, PhD, chemistry and science education
JoAnn Peters, PhD, organic, mechanistic

## Associate Professors

Anthony Diaz, PhD, inorganic, solid state
Anne Johansen, environmental, PhD, analytical
Carin Thomas, PhD, biochemistry, toxicology

## Assistant Professors

Gil Belofsky, PhD, organic
Stephen Chamberland, PhD, organic
Levente Fabry-Asztalos, PhD, organic
Yingbin Ge, PhD, physical
Dion Rivera, PhD, physical, analytical
Tim Sorey, PhD, chemistry education

## Staff

Tony Brown, stockroom manager
Don Davis, computer technician
Cynthia Kuhlken, safety officer/research lab manager
Lee Longmore, instrument technician
Mari Sorey, stockroom assistant
Lisa Stowe, secretary
Jeff Wilcox, instrument technician

## Master of Science Chemistry

Program Objectives and Descriptions:
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. 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-theart and fully equipped laboratory facilities with an array of modern instrumentation and computation capabilities. Furthermore, it operates a state certified environmental testing laboratory.

## Program 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 access success in a graduate program, statement of purpose, standardized test scores (if applicable), academic preparation for work in the proposed field, and interests as matched with those of our faculty are all taken into consideration. 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. Scores from the chemistry subject test may be requested in special cases. 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 without graduate credit. International students for whom English is a second language must provide TOEFL scores to demonstrate English proficiency.Program Requirements: The MS degree in Chemistry 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 nine core credits in chemistry, enroll in CHEM 503, Introduction to Research, during the fall quarter of 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 14 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, and projected time line. The document is to be submitted to committee members at least one week before the scheduled seminar and must be approved by the committee as a condition of receiving credit. It is advised that the student take these credits before completion of his/ her third quarter as a graduate student. The second 2 credits of CHEM 589 are the final oral examination on the student's thesis project. 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, and prepare a written thesis documenting their graduate research. Normal completion of the master of science requires two academic years and an intervening summer of study. 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.

Electives: Fourteen credits of elective coursework at the 400 or 500 level are required for the MS degree in Chemistry. Elective courses are selected with advising from the thesis committee and provide expertise in the fields of the individual student's academic interests and research focus and complement professional goals. Elective topics offered by the chemistry department include biochemical toxicology, mechanistic organic chemistry, organic synthesis, environmental chemistry, solidstate chemistry, analytical instrumentation, graduate physical chemistry, and chemistry education. Elective courses from other departments (biology, geology, mathematics, physics, and psychology among others) may be selected with graduate committee approval.

Graduate Committee: Before the end of the candidate's second quarter in the program and after consultation with all 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: 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 on all phases of the student's
program. The review covering the student's thesis and coursework consists of a seminar open to the public followed by queries from the thesis committee.

## Chemistry, MS

Required Courses
CHEM 503 - Introduction to Research ..... 1
CHEM 505-Current Topics in Chemistry . . 1
CHEM 589 - Graduate Student Seminar . . . . 4
CHEM 595 - Graduate Research . . . . . . . . . 10
CHEM 700 - Master's Thesis, Project
Study and/or Examination . . . . . . . . . . . . . 6
Chemistry Electives . . . . . . . . . . . . . . . . . . . . . 9
Electives to be selected by advisement . . . . 14
Program Total Credits: 45

## Chemistry Courses

CHEM 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees, not institutional requirements for endorsements, or teaching certificates offered through the university.
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.
CHEM 505. Current Topics in Chemistry (1). Prerequisite: graduate status or permission of instructor. Restrictions: may be repeated for credit when subject matter differs to a maximum of 5 credits.
CHEM 511. Advanced Biochemistry (3). A course in advanced biochemical concepts focusing on current topics in metabolism, membrane transport systems, electron transport, oxidative phosphorulation, and DNA using mitochondria as a model system. Prerequisites: CHEM 362 and CHEM 432, or BIOL 320 and / or permission of the instructor.

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. Prerequisites: CHEM 362 and CHEM 431; CHEM 432 or BIOL 320 and / or permission of instructor. Same as CHEM 498, Biochemical Toxicology; may not receive credit for both.
CHEM 551. Atmospheric Chemistry (3). The chemistry of the stratosphere and troposphere; chemistry of the atmospheric aqueous; the meteorology of air pollution; cloud microphysics; mathematical chemical/transport modeling. Prerequisite: CHEM 382.
CHEM 552. The Chemistry of Natural Waters (3). A study of the chemical reactions that lead to the steady state and / or equilibrium composition of natural waters. Prerequisites: CHEM 251 and CHEM 382 or by permission of instructor.

## CHEM 555. Microsystems and

 Nanotechnology in Analytical Chemistry (3). Understanding the fundamental chemistry and engineering involved in the design of analytical devices that employ nanotechnology and microsystems. Prerequisites: CHEM 332 and CHEM 452. CHEM 381 and CHEM 382 recommended.
## CHEM 561. Organic Reaction Mechanisms

 (3). An examination of several classes of organic reactions mechanisms, with an emphasis on the reaction intermediates, and on the methods used for studying reaction pathways. Prerequisites: CHEM 363 or the equivalent, CHEM 383 or permission of the instructor.
## CHEM 564. Medicinal Organic Chemistry

 (3). A multi-component study of drugs and other biologically potent materials in terms of chemical synthesis, radiochemistry, biochemical evaluation, and biological
and-receptor interactions. Prerequisites: CHEM 363 and CHEM 431 or equivalent or permission of the instructor.
CHEM 565. Organic Synthesis I (3).
Fundamentals of modern synthetic organic chemistry. Major emphasis is on carbon-carbon bond forming methodology. Topics include carbonyl annelations, cycloadditions, sigmatropic rearrangements, and organometallic methods. Prerequisite: CHEM 363 or the equivalent, or permission of the instructor.
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. Prerequisites: CHEM 350 and CHEM 382.
CHEM 582. Chemical Kinetics (3).
Prerequisites: Mathematics through multivariable calculus, CHEM 383, or equivalent. Three lectures weekly. Principles of chemical kinetics: basic theories, methods, and application.
CHEM 583. Quantum Chemistry (3).
Prerequisites: Mathematics through multivariable calculus, CHEM 383, or equivalent. Three lectures weekly Principles of quantum chemistry: basic theories, methods, and applications.
CHEM 589. Graduate Student Seminar (2). May be repeated for credit. A one-hour professional seminar encompassing a contemporary topic is provided to the department and campus community.
CHEM 590. Cooperative Education (1-5).
Prerequisites: undergraduate degree and permission of graduate coordinator.
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. Prerequisite: permission of instructor. May be repeated for credit for only 2 credits, may be applied to the chemistry MS degree.
CHEM 595. Graduate Research (1-10).
Prerequisite: permission of instructor. May be repeated for credit.
CHEM 596. Individual Study (1-5).
Prerequisites: permission of instructor and thesis committee. May be repeated for credit.
CHEM 598. Special Topics (1-6). May be repeated for credit under a separate title. CHEM 599. Graduate Seminar (1). May be repeated for credit.
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. Prerequisites: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## GEOGRAPHY DEPARTMENT

Ellensburg
Dean Hall, room 301
509-963-1188
Fax: 509-963-1047
www.cwu.edu / ~geograph
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
James Huckabay, PhD

## Professors

Anthony Gabriel, PhD, hydrology, lake and river ecosystems, coastal and wetlands management
Robert Hickey, PhD, environmental impacts, coastal zones, GIS, Australia
James Huckabay, PhD, energy resources, climatology, resource comflict management, Europe
Nancy Hultquist, PhD, economic and urban geography, GIS, computer cartography, remote sensing
Robert Kuhlken, PhD, land-use planning, cultural ecology, historical geography, Oceania
Karl Lillquist, PhD, physical geography, geomorphology, soils, environmental change in arid and alpine watersheds
Morris Uebelacker, PhD, human geography, Yakima River basin, field methods

## Associate Professors

Gregory Brown, PhD, environmental studies, land-use planning, GIS, Australia

## Assistant Professors

John Bowen, PhD, economic geography, transportation geography, Asia
Jennifer Lipton, PhD, cultural ecology, remote sensing, climate change, Latin America
Michael Pease, water resources, watershed planning and analysis, North America
Craig Revels, PhD, cultural-historical geography, landscape, Latin America

## Senior Lecturer

Elaine K. Glenn, MS, political geography, world regional geography, Middle East

## Lecturer

Clay Arango, PhD, environmental geography, field methods, aquatic landscapes

## Emeritus Faculty

Joel M. Andress, PhD
James Brooks, PhD
Dee Eberhart, MA
Kenneth Hammond, PhD
Martin Kaatz, PhD
George Macinko, PhD
John Ressler, PhD

## Staff

David Cordner, instructional technician
Marilyn Mason, secretary

## Department Information

Geography jointly coordinates the master of science degree program in Resource
Management with the Department of Anthropology. For further information see Resource Management.

## Geography Courses

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. Prerequisites: ANTH 120 or GEOG 107 or permission of the instructors. ANTH 427/527 and GEOG 427 / 527 are equivalent courses. Graduate credit requires an additional research paper to be specified in syllabus.
GEOG 596. Individual Study (1-6).
Prerequisite: permission of department chair.
GEOG 599. Seminar (1-5). May be repeated.

## GEOLOGICAL SCIENCES DEPARTMENT

Ellensburg
Lind Hall, room 108B
509-963-2702
Fax: 509-963-2821
www.geology.cwu.edu
See Web site for how these programs could be used for educational and career purposes.

## Faculty and Staff

Chair
Wendy A. Bohrson, PhD

## Professors

Lisa L. Ely, PhD, geomorphology, paleohydrology, and quaternary geology
Jeffrey Lee, PhD , active and regional tectonics, structural geology
M. Meghan Miller, PhD, crustal deformation, GPS geodesy, active tectonics, and remote sensing
Charles M. Rubin, PhD, paleoseismology, earthquake hazards, and active tectonics

## Associate Professors

Wendy A. Bohrson, PhD, volcanology, isotope geochemistry, igneous petrology
Carey Gazis, PhD, environmental geochemistry, stable isotope geochemistry, and hydrogeology
Timothy I. Melbourne, PhD, seismology, continental dynamics

## Assistant Professors

Chris Mattinson, PhD, mineralogy and petrology
Beth Pratt-Sitaula, PhD, Earth science education and geomorphology

Lecturers
Marie Ferland, PhD, marine statigraphy, climate change
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

Jocelyn Robinette, secretary
V. Marcello Santillan, scientific programmer and GPS data analyst
Craig Scrivner, systems analyst
Nick Zentner, instructional technician supervisor

## 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, multidisciplinary 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-(NSF) sponsored 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) Consortium 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 Trimple 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 . . . . . 3
GEOL 502 - Regional Field Geology of the
Pacific Northwest $\qquad$ 2

GEOL 503 - Introductory Graduate Research Methods . 3
GEOL 504 - Graduate Seminar Series. . . . . . . . 6
Subtotal Credits: 14

Electives and Seminars (to be selected by advisement) 25-31 GEOL 595 - Graduate Research (1-10) . . . .9-15 GEOL 700 - Master's Thesis, Project Study, and / or Examination (1-6) . . . . . . . . 6

Total Credits: 60

## Geological Sciences Courses

GEOL 501. Current Topics in Geology (3).
Course will introduce beginning graduate students to current research topics in a variety of sub disciplines 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. Prerequisites: GEOL 501 and 502, or permission of instructor. Three hours per week.
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 be either $S$ or $U$.
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. Prerequisites: GEOL 101 or GEOL 102 and GEOL 101LAB, and permission of instructor. Three hours of lecture per week and four hours of laboratory per week. GEOL 515 and GEOL 415 are equivalent courses. Students may not receive credit for both.
GEOL 520. Tectonic Evolution of Western North America (4). Overview of the tectonic, structural, and stratigraphic evolution of western North America Cordillera, from the Proterozoic to the present day. Prerequisite: GEOL 101 or GEOL 102 and GEOL 101LAB, GEOL 200, and GEOL 360. Four lectures per week. GEOL 520 and GEOL 420 are equivalent courses. Students may not receive credit for both.
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. Prerequisite: CHEM 181, CHEM 181LAB, CHEM 182, and CHEM 182LAB, or permission of instructor. Three lectures plus one three-hour lab per week. GEOL 525 and GEOL 425 are equivalent courses. Students may not receive credit for both.
GEOL 528. Pacific Northwest Active Continental Margin Geology (1-5). Through a problem-solving approach, students will learn how geoscientists developed our understanding of active continental margin tectonics and volcanism in the Pacific Northwest and how current research is advancing frontiers of knowledge. Prerequisite: permission of instructor. Course may be repeated for up to 8 credits.
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. Prerequisites: GEOG 410 or GEOL 210, or permission of instructor. Three hours lecture and three hours laboratory per week. GEOG 530, GEOL 430, and GEOG 430 are equivalent courses. Students may not receive credit for more than one course.
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. GEOL $101 / 101 \mathrm{LAB}$, or GEOL 102 / 101LAB, GEOL 200, and GEOL 210. Three hours a week and field project, or one-week field course. GEOL 532 and GEOL 432 are equivalent courses. Students may not receive credit for both.
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. Prerequisites: GEOL 101/LAB, and GEOL 200 or 210, and GEOL 370, or permission of the instructor. GEOL 434 and GEOL 534 are equivalent courses. Students may not receive credit for both.
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. Prerequisites: GEOL 200, or permission of the instructor. GEOL 441 and GEOL 541 are equivalent courses. Students may not receive credit for both.
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. Prerequisites: GEOL 101 or GEOL 102, and GEOL 101LAB, and MATH 154, or permission of instructor. Three hours lecture and three hours laboratory per week. GEOL 545 and GEOL 445 are equivalent courses. Students may not receive credit for both.
GEOL 553. Seismology (5). Elasticity theory, the wave equation, ray theory, diffraction, waveform modeling, travel time inversion. Data analysis. Prerequisites MATH 173 or permission of instructor. Three hours lecture per week plus four hours of scientific computing lab. Offered alternate years. GEOL 553 and GEOL 453 are equivalent courses. Students may not receive credit for both.
GEOL 554. Geostatistics (5). Introduction to statistical analysis and numerical simulation of problems relevant to Earth science. Three hours of lecture and three hours of lab. No prior Unix experience necessary. GEOL 554 and GEOL 454 are equivalent courses. Students may not receive credit for both.
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 556 and GEOL 456 are equivalent courses. Student may not receive credit for both.
GEOL 563. Tectonic Investigations (2). Classroom study and analysis of tectonics of a selected region. Emphasis will be on developing background skills and knowledge to undertake a tectonic field investigation in GEOL 463LAB. Prerequisites: GEOL 360 and permission of the instructor. GEOL 463 and GEOL 563 are equivalent courses. Students may not receive credit for both.
GEOL 563LAB. Tectonic Field Investigation (3). Tectonic investigation and analysis of select field sites employing a variety of field and laboratory measurements such as mapping, tectonic geomorphology, GPS, and Total Station surveying. Course consists of either weekly local field trips during the quarter, or single one-week field trip over spring break to another region. Corequisite, GEOL 563. GEOL 463LAB and 563LAB are equivalent courses. Students may not receive credit for both.
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.
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. Prerequisite: GEOL 386 or permission of instructor. GEOL 574 and GEOL 474 are equivalent courses. Students may not receive credit for both.
GEOL 575. Petrography and Petrogenesis (5). Petrogenetic, hand specimen, and thinsection study of igneous, metamorphic, or sedimentary rocks. Prerequisite: consent of instructor. Three hours lecture and four hours laboratory or field work per week plus required field trips. GEOL 575 and GEOL 475 are equivalent courses. Students may not receive credit for both. Offered in alternate years.
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. Prerequisite: permission of instructor. Three hours lecture and four hours laboratory per week plus required field trips. GEOL 578 and GEOL 478 are equivalent courses. Students may not receive credit for both. Offered in alternate years.

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. Prerequisites CHEM 182, CHEM 182L, and MATH 154, or permission of instructor. Three hours lecture per week plus required laboratory work and field trips. GEOL 583 and GEOL 483 are equivalent courses. Students may not receive credit for both. Offered in alternate years.
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. Prerequisites: MATH 172 and GEOL 346, or permission of the instructor. GEOL 584 and GEOL 484 are equivalent courses. Students may not receive credit for both.
GEOL 595. Graduate Research (1-10). Prerequisite: permission of instructor. May be repeated for credit.
GEOL 596. Individual Study (1-5). Prerequisite: permission of instructor. May be repeated for credit.
GEOL 598. Special Topics (1-6). Prerequisite: permission of instructor. May be repeated for credit under separate title.
GEOL 599. Seminar (1-5). Prerequisite: permission of instructor. May be repeated for credit under a separate title.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.


## MATHEMATICS DEPARTMENT

Ellensburg
Bouillon Hall, room 108

509-963-2103
Fax: 509-963-3226
www.cwu.edu / ~cwumath
See Web site for how mathematics could be used for educational and career purposes.

## Faculty and Staff

Chair
Aaron Montgomery, PhD

## Professors

Stuart F. Boersma, PhD, differential geometry, general relativity
Timothy Englund, PhD, group theory, representation theory, statistics
Stephen P. Glasby, PhD, computational algebra, representation theory
James D. Harper, PhD, harmonic analysis
Cen Tsong Lin, PhD , probability and
mathematical statistics, actuarial science
Mark Oursland, PhD, mathematics education

## Associate Professors

Yvonne Chueh, PhD, actuarial science, statistics
W. Dan Curtis, PhD, applied mathematics Jonathan Fassett, PhD, topology, dynamical systems
Michael Lundin, PhD, mathematics education Aaron Montgomery, PhD, topology, algebra

## Assistant Professors

Teri Willard, PhD, mathematics education

## Staff

Debbie Thomas, secretary

## Masters of Arts for Teachers, Mathematics

Program Coordinator
Mike Lundin
Bouillon Hall, room 108D
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 regulations 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.

## Required Courses

Committee-approved electives . . . . . . . . . 6-9
MATH 505 - Proof Writing . . . . . . . . . . . . . . . 1
MATH 506 - Technology for Teaching
Mathematics
MATH 510 - Games of Chance . . . . . . . . . . . . 3
MATH 522 - Modern Programs in
Mathematics.
MATH 523 - Math Methods for Jr. High School Credits: (2)
MATH 524 - Math Methods for High
School
MATH 526 - Research Methods in
Mathematics Education . 4
MATH 527 - Advanced Statistical Methods . 4
MATH 550 - Transformational Geometry . . . 3
MATH 562 - Modern Algebra for Teachers . 3
MATH 566 - Matrices and Their
Applications
MATH 570 - Calculus for Secondary
Teachers
. 3
MATH 572 - Elementary Real Analysis .... 3
MATH 700 - Master's Thesis, Project Study, and / or Examination .3-6

Total Credits: 46

## 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.

## Mathematics Courses

MATH 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
MATH 505. Proof Writing (1). Review the essentials of mathematical proofs and how to write proofs for mathematical understanding. Course may be repeated for up to 3 credits.
MATH 506. Technology for Teaching Mathematics (1). Methods of appropriate use of technology for teaching mathematics. Course may be repeated for up to 3 credits.
MATH 510. Games of Chance (3). Requiring only the fundamental ideas of basic probability, this course applies and
investigates the popular casino games of chance, gambling systems and strategies, the law of averages, cheating, and the
Gambler's Ruin. Offered in summers only.
MATH 515. Probability and Statistics for Elementary School Teachers (2). Concepts and methods of probability and statistics as used in the elementary classroom. Offered in summers only.
MATH 522. Modern Programs in
Mathematics (2). Prerequisite: one year of teaching experience in mathematics or permission. Offered in summers only.
MATH 523. Math Methods for Junior
High School (2). Problems and methods associated with the teaching of mathematics in the junior high or middle school. Prerequisite: one year of teaching experience in mathematics. Offered in summers only.
MATH 524. Math Methods for High School
(2). Problems and methods associated with the teaching of mathematics in high school. Prerequisite: one year of teaching experience in mathematics. Offered in summers only.
MATH 526. Research Design in Mathematics
Education (4). This course is an introduction to current research practices in mathematical education. It focuses on evaluating the designs of existent research as well as developing designs for student research leading to student projects and theses. Prerequisite: MATH 311 or instructor permission.
MATH 527. Advanced Statistical Analysis (4). This course is an introduction to statistical methods used in current research practices in mathematics education. This course focuses on interpreting statistics presented in extent research as well as using computer software to generate statistics. Prerequisite: MATH 526.
MATH 530. Mathematical Recreations (3). An examination of selected examples of puzzles, paradoxes, brain teasers, parlor games, and a brief investigation of the mathematical principles on which they are based. Primarily for the experienced junior and senior high school mathematics teacher seeking motivational materials. Offered in summers only.
MATH 532. Discrete Dynamical Systems
(4). Introduction to discrete dynamical systems for K-12 mathematics educators, fixed points, periodic points, period doubling route to chaos, Julia sets, and the Mandelbrot set. Students will explore ways in which dynamical systems can be included in the K-12 mathematics curriculum.
MATH 535. Adventures Among the
Numbers (3). Tricks, puzzles, games, and patterns involving the ordinary whole numbers of arithmetic; suitable for stimulating interest in the basic properties of numbers and the operations of arithmetic. Intended primarily for teachers
in the higher elementary grades as well as secondary school teachers. Prerequisite: MATH 430 or permission. Offered in summers only.
MATH 550. Transformational Geometry (3). A study of the group of transformations of the plane: reflections, rotations, translations, glide reflections. As time permits the properties of dilations and affinities also will be discussed. Prerequisite: MATH 455 or permission. Offered in summers only.
MATH 553. Intuitive Geometry for Teachers of Grades 4-8 (3). Prerequisite: one year of teaching experience.
MATH 562. Modern Algebra for Teachers (3). Reexamination of the fundamental algebraic structures: groups, rings, integral domains, and fields, with examples and applications. Prerequisites: MATH 360 or equivalent and one year of teaching experience. Offered in summers only. Previously MATH 460.
MATH 566. Matrices and Their Applications (3). Matrix algebra including finite Markov chains with applications to business, psychology, genetics, and learning models. Sociometric applications to conflict and dominance. Prerequisite: MATH 163.1 or equivalent. Offered in summers only.
MATH 570. Calculus for Secondary Teachers (3). A re-examination of the processes of differentiation and integration emphasizing their application to the natural, behavioral, social, and managerial sciences.
Prerequisite: MATH 173 or equivalent and one year of teaching experience. Offered in summers only.
MATH 572. Elementary Real Analysis (3). Examines fundamental concepts of sets, sequences, limits, series, functions, continuity, and differentiability. Prerequisite MATH 173 or equivalent and one year of teaching experience. Offered in summers only.
MATH 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.
MATH 595. Graduate Research (1-10). Prerequisite: permission of advisor. Grade will be $S$ or $U$. May be repeated for credit. A maximum of 5 credits may count toward degree requirements.
MATH 596. Individual Study (1-6).
Prerequisite: permission of instructor.
MATH 598. Special Topics (1-6).
MATH 599. Seminar (1-5). Prerequisite: permission of instructor. May be repeated for credit.
MATH 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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## PSYCHOLOGY DEPARTMENT

Ellensburg

Psychology Bldg., room 421
509-963-2381
Fax: 509-963-2307
www.cwu.edu / ~psych
See Web site for how this major could be used for educational and career purposes.

## Faculty and Staff

Chair
Stephanie Stein, PhD

## Professors

Terry L. DeVietti, PhD, physiological psychology, experimental
Roger S. Fouts, PhD, Interim Dean of Graduate Studies and Research, general experimental, language acquisition, primate behavior, comparative psychology
Eugene R. Johnson, EdD, school psychology, psychological and educational evaluation, exceptional children
Susan D. Lonborg, PhD, psychotherapy research, psychology of women, clinical and research ethics, career development, health psychology
Wayne S. Quirk, PhD, Provost, sensation and perception, neuroscience
Stephen B. Schepman, PhD , organization development, work motivation, personality theories
Anthony J. Stahelski, PhD, organization development, social psychology, small group interaction
Stephanie Stein, PhD, school psychology, behavior disorders in children, lifespan development, school-based assessment Elizabeth M. Street, EdD, educational psychology, learning theory, exceptional children, behavioral analysis
Philip Tolin, PhD, sensation and perception, human factors, experimental

## Associate Professors

Robert Brammer, PhD, multicultural counseling, counseling supervision, adolescent interventions, psychology of religion
W. Owen Dugmore, PhD, counseling, psychology of adjustment
Marte Fallshore, PhD, human learning and memory, development of expertise, statistics, cognition, environmental decision-making, crime severity
Megan D. Matheson, PhD, general experimental, primate behavior, comparative psychology
Jeffrey M. Penick, PhD, counseling psychology, health psychology, adult development
Terrence J. Schwartz, PhD, educational psychology, counseling psychology, statistical analysis

Wendy A. Williams, PhD, general experimental, single-subject design, experimental analysis of human and nonhuman behavior, and animal welfare

## Assistant Professors

Jennifer Cates, PhD, multicultural counseling, family systems, drug and alcohol counseling
Kara I. Gabriel, PhD, general experimental, biopsychology, behavioral genetics
Ralf Greenwald, PhD , cognitive neuroscience, cognitive psychology, brain dynamics, electro-physiology
Danielle Polage, PhD, cognitive psychology, psychology and law, memory, lying, eyewitness testimony, jury decision making, and repression
Scott Schaefle, PhD, school counseling, child and adolescent counseling
Ryan Zayac, PhD, applied behavior analysis, developmental disabilities, early intensive behavioral intervention

## Staff

Estelle Mathews, secretary lead
Loretta Ney, secretary lead
Donna Miglino, secretary
Chris Buchanan, engineering technician III
John Street, engineering technician II

## Department Information

The Department of Psychology offers courses of study leading to the master of science degree in Experimental Psychology and Mental Health Counseling and to the master of education degree in School Counseling and School Psychology. For students already holding the master's degree, certification-only programs are offered in School Counseling and School Psychology.

## Admission Requirements

Admission to these programs is based on evaluation of the student's prior scholastic record: verbal and quantitative 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, School 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 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.

## Master of Education and/ or Certification in School Counseling and School Psychology

The mission purpose and governance structure of the School Counseling and School Psychology programs is the scientistpractitioner 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 counselors and 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 Counseling and School Psychology 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.

The director of the school counseling program is Dr. Robert Brammer. School psychology is directed by Dr. Gene Johnson. Contact the psychology department for more information about either program.

## School Counseling, MEd

Program Director:
Robert Brammer, PhD
Psychology Building, room 118
The MEd and certification programs in School Counseling train specialists to provide individual and group counseling in the schools and to consult with parents and teachers concerning the social, educational, and developmental tasks of children and youth.

The State Board of Education's standards for certification of school counselors require that the candidate complete an approved master's degree program in counseling which has been developed in concert with school and professional organizations. CWU is affiliated with and Educational Staff Associate (ESA) professional Education Advisory Board for the preparation of school counselors. The program emphasizes supervised practicum and field experiences. Upon completion of the master's degree and certification program, the individual will be qualified for the residencylevel certificate as a school counselor in the state of Washington. Candidates for residency certification generally follow the two-year program leading to the master of education degree in School Counseling. Candidates who have already earned a master's or doctoral degree in a related field, such as education, special education, mental health counseling and school social work are not required to earn a second master's, but must complete all requirements for the MEd degree and certification program in school counseling, with the exception of the thesis or project. The certification program also requires satisfactory completion of a comprehensive examination.

Prerequisites: PSY 362 and 363 (or approved equivalents) 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, and a course in history and systems of psychology. Students hot having
these courses should expect to do additional work when prior course knowledge is needed. Please note the background check and liability insurance requirements described in the general departmental information section.

## Required Courses

PSY 503 - Proseminar in School Counseling 3
PSY 544 - Tests and Measurements ......... 4
PSY 551 - Behavior Analysis . . . . . . . . . . . . . . 4
PSY 552 - Human Growth and
Development, Advanced . . . . . . . . . . . . . . . 3
PSY 555 - Design and Analysis for
Applied Research . . . . . . . . . . . . . . . . . . . . . 4
(in lieu of EDF 510)
PSY 559 - Advanced Educational
Psychology
PSY 560 - Theories and Practice of Counseling
Successful completion of PSY 560 and 593 A is required for final admission to the school counseling program.
PSY 561 - Group Counseling . . . . . . . . . . . . . 3
PSY 567 - Counseling and Assessment:
Children and Adolescents . . . . . . . . . . . . . . 5
PSY 569 - Administering School Counseling Programs . . . . . . . . . . . . . . . . 4
PSY 571 - Counseling for Relationships and Families
PSY 573 - Career Development and
Counseling ......................... . . . . . . 4
PSY 574 - Multicultural Counseling ....... . 3
PSY 584 - Behavior Disorders and
Psychopathology . . . . . . . . . . . . . . . . . . . 4
PSY 589 - Professional and Ethical Issues . . . 4
PSY 593A - Practicum in Counseling I:
Interviewing .4
Successful completion of PSY 560 and 593A is required for final admission to the school counseling program.
PSY 593B - Practicum in Counseling II:
Assessment . . . . . . . . . . . . . . . . . . . .
PSY 593C - Practicum in Counseling III:
Advanced4
.... 4
PSY 682A - School Counseling Internship I: Group
PSY 682B School Counseling Internship II:
PSY 682B - School Counseling Internship II:
Advanced
.12
PSY 700 - Master's Thesis, Project Study,
and/or Examination.
. 6
Total Credits: 90

## School Psychology, MEd

## Program Director

Eugene R. Johnson, EdD
Psychology Bldg., room 118
The State Board of Education's standards for certification of school psychologists require that the candidate complete an approved master's 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 second master's, but must complete all requirements or their equivalent.) Successful completion
of the preparation 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 MEd degree and certification program in school psychology is fully approved by the National Association of School Psychologists (NASP).

Prerequisites: PSY 362, PSY 363, (or approved equivalents) may be taken concurrently with certain program courses.

## Master's Degree Requirements

The master of education degree in School Psychology is granted to the candidate upon completion of 99 quarter hours of coursework including thesis. The following courses (or approved equivalents) are required:

## Required Courses

EDF 507 - Studies and Problems in Intercultural Education3

EDSE 523 - Curriculum for Students with Special Needs3

PSY 501 - Professional Seminar in School Psychology
PSY 525 - Psychology of Reading . . . . . . . . . 3 OR
EDRD 525 (3)
PSY 551 - Behavior Analysis .4

PSY 552 - Human Growth and
Development, Advanced.
PSY 553 - Single Subject Design . . . . . . . . . . . . 3
PSY 554 - Behavioral Interventions . . . . . . . . 4
PSY 555 - Design and Analysis for Applied Research
(in lieu of EDF 510)
PSY 556 - Advanced Evaluative Techniques
PSY 559 - Advanced Educational
Psychology $\qquad$
PSY 560 - Theories and Practice of
Counseling $\qquad$
Successful completion of PSY 560 and
593 A is required for final admission
to the school psychology program.
PSY 561 - Group Counseling
PSY 564 - Intellectual Assessment . . . . . . . . . . 5
PSY 566 - Behavioral and Social-Emotional
Assessment
.5
PSY 578 - Applied Physiological Psychology 4
PSY 583 - Consultation .3
PSY 584 - Behavior Disorders and
Psychopathology
PSY 592A - Practicum in School Psychology 3
PSY 592B - Practicum in School Psychology 3
PSY 593A - Practicum in Counseling I:
Interviewing . . . . . . . . . . . . . . . . . . . . . . . . 4
Successful completion of PSY 560 and 593A is required for final admission to the school psychology program.
PSY 593B - Practicum in Counseling II:
Assessment
PSY 683 - School Psychology Internship . .5-15 (one public school year, minimum
1,200 clock hours)

PSY 700 - Master's Thesis, Project Study, and / or Examination. .1-6
MEd and Certification Total Credits: 99

## Master of Science Experimental Psychology

Program Director
Wendy Williams, PhD
Psychology Bldg., room 426
The experimental psychology graduate program reflects our commitment to providing students with a generalized background in experimental psychology at the graduate level. Two specializations are available: general experimental psychology and applied behavior analysis. Students are expected to complete a set of required core courses and additional requirements within either of the two specializations. Applicants for admission should indicate their interest area(s) 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, 362, 363, (or approved equivalents). Prerequisite courses may be taken concurrently with certain program courses. Only students in the ABA specialization are required to complete PSY 301 as a prerequisite.

## MS in Experimental Psychology Core

 CoursesMethods and Statistics . . . . . . . . . . . . . . . . 9-10
Choose at least two courses:
PSY 550 - Research in Natural Environments (5)
PSY 553 - Single-subject Design (3)
PSY 555 - Design and Analysis for
Applied Research (4)
PSY 558 - Advanced Statistics (5)
Theory and Research $\qquad$
Choose at least three courses:
PSY 541 - Advanced Cognitive Psychology (5)*
PSY 551 - Behavior Analysis (4)
PSY 576 - Comparative Psychology (4)
PSY 578 - Applied Physiological Psychology (4)

## Other Required Courses:

PSY 505 - Psychology Colloquium (1) . . . . . . 3
PSY 580 - Current Issues in Psychology. . . . . 3
PSY 587 - Ethics in Experimental Psychology
and Applied Behavior Analysis
. 4
PSY 595 - Graduate Research (1-10) . . . . . . . . 3
Must be taken for 3 credits
PSY 700 - Master's Thesis, Project Study and/or Examination (1-6) . . . . . . . . . . . . . . 6

Subtotal Credits: 38-42
*ABA specialization students must select PSY 551 from the theory and research option list.

## General Experimental Psychology Specialization

## Advisor

Wendy Williams, PhD
Psychology Bldg., room 426
The general experimental psychology specialization requires students to complete the 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 currently include cognitive psychology, physiological psychology, social psychology, educational psychology, and animal behavior.

It may be possible to develop curricular tracks in other areas of psychology and / or interdisciplinary programs. However, to be certain that a curriculum can be developed that meets the student's needs, it should be planned in consultation with a faculty advisor prior to enrollment in the program.

The educational requirements of the Animal Behavior Society's Associate Applied Animal Behaviorist Certificate can be met by completing the degree program with an appropriate selection of core and elective courses.

Prerequisites: PSY 300, 362, 363, (or approved equivalents). Prerequisite courses may be taken concurrently with certain program courses.

## Required Courses

MS in experimental psychology
core courses
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . .6-10
By advisement, in approved areas of concentration

Specialization Total Credits: 48

## Applied Behavior Analysis Specialization

## Advisor

Ryan Zayac, PhD, BCBA
Psychology Bldg., room 452
The specialization in ABA is designed to prepare graduates with the knowledge and skills of behavior analysis for later doctoral study or for work with individuals and organizations in clinical or research settings such as education, developmental disabilities, mental health, business, and industry. This program provides the educational requirements to become a Board-Certified Behavior Analyst (BCBA). Additional BCBA requirements include supervised hours of practice and a board examination.

Prerequisites: PSY 300, 362, 363, (or approved equivalents). Prerequisite courses may be taken concurrently with certain program courses.

## Required Courses

MS in experimental psychology
core courses

## ABA Required Courses

EDSE 501 - Orientation, Foundation, and issues.
EDSE 510 - Instructional Management Principles. .3

EDSE 521 - Functional Behavioral and Instructional Assessment. 3
PSY 554 - Behavioral Interventions . . . . . . . . 4
PSY 562 - Advanced Principles of Learning . 3
PSY 651 - Advanced Applied Behavior Analysis .
PSY 684 - Internship in Applied
Experimental Psychology (3-12) . 12
Specialization Total Credits: 68-72
*ABA track students must select PSY 551 from the theory and research option list.

## Master of Science <br> Mental Health Counseling

Program Director
Robert Brammer, PhD
Psychology Building, room 118
The MS program in mental health counseling trains mental health professionals for careers in a variety of settings. The orientation of the program is eclectic, with particular emphasis on those active counseling skills which are appropriate to short-term counseling. In addition, the program's scientist-practitioner emphasis may be useful to those students interested in pursuing doctoral study. The MS program in mental health counseling is accredited by the Council for Accreditation of Counseling and Related Programs (CACREP).

The student shall complete a comprehensive exam and an approved course of study filed with 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, and a course in history and systems of psychology. Students not having these courses should expect to do additional work when prior course knowledge is needed. Please note the background check and liability insurance requirements described in the general departmental information section.

## Required Courses

PSY 502 - Professional Orientation: Mental Health Counseling .2
PSY 544 - Tests and Measurements . . . . . . . . 4
PSY 552 - Human Growth and
Development, Advanced.
PSY 555 - Design and Analysis for
Applied Research .4

PSY 560 - Theories and Practice of Counseling4
Successful completion of PSY 560 and 593A is required for final admission to the Mental Health Counseling Program.
PSY 561 - Group Counseling ................ . 3
PSY 567 - Counseling and Assessment:
Children and Adolescents . . . . . . . . . . . . . . 5
PSY 568 - Counseling and Assessment
Strategies for Adults ..................... . . 5
PSY 571 - Counseling for Relationships and Families
. . 4
PSY 573 - Career Development and Counseling
. 4
PSY 574 - Multicultural Counseling ........ 3
PSY 584 - Behavior Disorders and
Psychopathology
. 4
PSY 589 - Professional and Ethical Issues . . . 4
PSY 593A - Practicum in Counseling I:
Interviewing . . . . . . . . . . . . . . . . . . . . . . 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 . . . . . . . . . . . . . . . . . . . . . .
PSY 593C - Practicum in Counseling III: Advanced . . 4

PSY 681 A - Mental Health Internship I: Group . . . . . . . . . . . . . . . . . . . . . . . . . . PSY 681B - Mental Health Internship II: Advanced .1-12

Students who take the MS degree and also seek school counseling certification must complete the remaining classes for the school counseling degree, including 12 hours of PSY 682B in a school setting. Students who take the master of science (MS) degree and also seek School Psychology certification must complete an internship in Mental Health (PSY 681BJ) and in School Psychology (PSY 683). Other courses required for certification in School Counseling or School Psychology will be determined through individual assessment.
PSY 700 - Master's Thesis, Project Study, and / or Examination6

Electives (must be approved by advisor) . . 8
Total Credits: 90

## Psychology Courses

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.
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 or permission of instructor.
PSY 502. Professional Orientation: Mental Health Counseling (2). Professional
identity in mental health counseling. Roles and functions of mental health counselors, professional organizations, credentialing, and accreditation, practices, and standards. Prerequisite: admission to graduate program in Mental Health Counseling or permission of the instructor. Professional identity in mental health counseling. Roles and functions of mental health counselors, professional organizations, credentialing, and accreditation, practices and standards. May be repeated for a total of four credits.
PSY 503. Proseminar in School Counseling (3). Introduction to role of the school counselor; comprehensive, developmental guidance, and counseling programs; interagency collaboration; current professional issues in school counseling. Prerequisite: permission of the instructor.
PSY 504. Thesis and Project Management
(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. Prerequisite: admission to a graduate course of study in Psychology.
PSY 505. Psychology Colloquium (1). Course will address professional development, grant-writing skills, philosophy of teaching, career paths, and research of presentation skills. Prerequisite: by permission of instructor only. Grade will be S or U .
PSY 525. Psychology of Reading (3).
Principles of learning and readiness, perception, psychological, and physiological aspects of reading. Prerequisites: a reading methods course, a basic psychology of learning course, or permission of the instructor. PSY 525 and EDRD 525 are equivalent courses. Students may not receive credit for both.
PSY 541. Advanced Cognitive Psychology (5). Advanced theories, methods, and research in cognitive psychology and information processing. Prerequisite: PSY 300 or equivalent or permission of the instructor.
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 equivalent courses with additional assignments for graduate students. Students may not receive credit for both.
PSY 544. Tests and Measurements (4). Psychological and educational tests, theory, and practice. Prerequisite: PSY 315 or PSY 362. PSY 544 and PSY 444 are equivalent courses. Students may not receive credit for both.
PSY 550. Research in Natural Environments (5). A seminar in describing behavior, developing questions, designing procedures, and analyzing data that address applied and naturalistic research situations. Prerequisite: PSY 362 or equivalent experience, or permission of instructor.

PSY 551. Behavior Analysis (4). Advanced behavior analytic principles, techniques, and strategies applied across a variety of professional settings.
PSY 552. Human Growth and Development, Advanced (3). Developmental theories, multicultural differences, exceptionality, related research, and implications for education and guidance. Prerequisite: PSY 313, 314, or permission of instructor.
PSY 553. Single-Subject Design (3). Course will address single-subject designs and methods common to behavior-analytic assessments and interventions. Focus will be on behavioral assessment, experimental evaluation, and the measurement, display, and interpretation of single-subject data sets. Includes both lecture and laboratory activities. Prerequisite: PSY 551 and permission of the instructor.
PSY 554. Behavioral Interventions (4). Research-based behavioral interventions for school, home, business, community, and professional service settings. Prerequisites: PSY 551 or permission of instructor.
PSY 555. Design and Analysis for Applied Research (4). Design and analysis of experimental and quasi-experimental research, with an emphasis on applied settings. Prerequisite: PSY 363 or equivalent.
PSY 556. Advanced Evaluative Techniques
(5). Evaluation procedures and assessment devices for use with children and adolescents, emphasizing variables affecting test performance, interpretation, and report writing. Prerequisite: PSY 444 and admission to the school psychology program.
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 principles of learning and behavior as it relates to educational situations, including major theories of learning and development and assessment/ evaluation procedures. Prerequisite: PSY 315 or permission of instructor.
PSY 560. Theories and Practice of Counseling (4). Survey of counseling theories with an introduction to counseling skills and practices. Prerequisite: CCPAC director's approval, or admission to Mental Health Counseling, School Counseling, or School Psychology program.
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.
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.
PSY 565. Advanced Animal Behavior (5). Advanced knowledge in the study of animal behavior. Three-hour lecture, twohour laboratory, one-hour independent study per week. PSY 565 and BIOL 465/565 are equivalent courses. Students may not receive credit for both PSY 565 and either BIOL 565 and BIOL 465.
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.
PSY 567. Counseling and Assessment: Children and Adolescents (5). Basic counseling assessment and treatment strategies for common problems presented by child and adolescent clients. Prerequisites: PSY 560 and PSY 593A.
PSY 568. Counseling and Assessment Strategies for Adults (5). Basic counseling assessment and treatment strategies for common problems presented by adult clients. Prerequisite: PSY 560. May be taken concurrently.
PSY 569. Administering School Counseling Programs (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. Prerequisite: PSY 503 or permission of the instructor.
PSY 571. Counseling for Relationships and Families (4). Major theoretical approaches to counseling with couples and families. Prerequisites: PSY 560 or permission of instructor.
PSY 572. International Counseling and Psychology (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. Prerequisite: PSY 101. PSY 472 and PSY 572 are equivalent courses. May be repeated up to six credits.
PSY 573. Career Development and Counseling (4). Major theories of career development, career assessment, and career intervention, emphasizing individual, ethnic, and cultural differences. Prerequisite permission of instructor.
PSY 574. Multicultural Counseling (3). Multicultural counseling theories and implications for research, training, and practice. Prerequisite: permission of instructor.
PSY 576. Comparative Psychology (4). Seminar in the study of behavior and cognition across species. Prerequisite:
permission of instructor. This course is equivalent to PSY 479. Students may not receive credit for both.
PSY 578. Applied Physiological Psychology (4). Physiological bases of various psychological disorders, brain injury and repair, and pharmacological treatment of clinical disorders. Prerequisite: permission of the instructor.
PSY 580. Current Issues in Psychology (3). May be repeated.
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. Prerequisite: PSY 449 or permission of instructor.
PSY 587. Ethics in Experimental Psychology and Applied Behavior Analysis (4). This course will familiarize the student with ethical issues and responsibilities of experimental psychologists and behavior analysts. Ethical decision-making processes will be emphasized and the relationship between ethics and law will be explored.
PSY 589. Professional and Ethical Issues (4). Professional, ethical, and legal issues for mental health and school counselors. Prerequisite: PSY 593A. Formerly PSY 599.1. Students may not receive credit for both.
PSY 591. Workshop (1-6).
PSY 592A. Practicum in School Psychology
(3). Attainment of competence in the use of observational techniques, anecdotal reports, rating scales, behavioral analyses, and developmental interviews. Prerequisite: admission to the school psychology program. Formerly PSY 592.1. Students may not receive credit for both. Grade will be $S$ or U.
PSY 592B. Practicum in School Psychology
(3). Experience in complete case workups within state and federal requirements. Includes assessments, interpretation of results, treatment plans, and educational programs. Emphasis on developing consultation skills. Prerequisite: PSY 592A. May be repeated for credit. Formerly PSY 592.2. Students may not receive credit for both. Grade will be S or U.
PSY 593A. Practicum in Counseling I: Interviewing (4). Interviews, role-playing, observation, and analysis of interview behavior. Prerequisite: admission to graduate programs in Counseling Psychology, School Counseling, or School Psychology, and permission of department chair. To be taken concurrently with PSY560. Grade will be S or U. May be repeated. A maximum of 4 credits may be included on the Course of Study on the master's degree.
PSY 593B. Practicum in Counseling II: Assessment (4). Assess client problems, set goals, and plan counseling strategies. Prerequisites: PSY 551 (may be taken
concurrently), PSY 560, 593A and permission of department chair. Grade will be S or U.
PSY 593C. Practicum in Counseling
III: Advanced (4). Implementation of counseling strategies with children, adults, couples, or families. Prerequisites: PSY 593B and permission of department chair. Grade will be S or U .
PSY 593D. Practicum in Counseling IV: Advanced (1-4). Implementation and evaluation of counseling with children, adults, couples, or families. Prerequisites: PSY 567, PSY 571, and PSY 593C (all may be taken concurrently) and permission of the department chair. Grade will be S or U .
PSY 594A. Supervised Field Experience in School Psychology (3). Prerequisite: graduate status in school psychology. Formerly PSY 594.1. Students may not receive credit for both.
PSY 594B. Supervised Field Experience in School Psychology (3). Prerequisite: graduate status in school psychology. Formerly PSY 594.2. Students may not receive credit for both.
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.
PSY 595CHCI. CHCI Graduate Research (1-10). Directed research or thesis research at the Chimpanzee and Human Communication Institute. Course fee will be assessed. May be repeated. Not more than 10 credits of PSY 595 and PSY 595CHCI combined may be included on the master's degree Course of Study.
PSY 596. Individual Study (1-6). Prerequisite: permission of instructor. May be repeated.
PSY 598. Special Topics (1-5).
PSY 599. Seminar (1-5). May be repeated.
PSY 651. Advanced Applied Behavior Analysis (3). This course builds upon the basic principles of learning and applied
behavior analysis. Advanced instruction in behavioral programming, data collection, analysis, program generalization, best practices, and current research will be presented. Prerequisite: PSY 551 or permission of the instructor.
PSY 681A. Mental Health Internship I: Group (3). Supervised counseling of child or adult groups. Some individual internship hours may also be obtained. Prerequisites: PSY 561, PSY 593C and permission of department chair. Grade will be $S$ or $U$.
PSY 681B. Mental Health Counseling Internship II: Advanced (1-12). Fulltime internship placement in a mental health agency or psychiatric hospital. Prerequisites: PSY 584 and PSY 681A. Grade will be $S$ or U.
PSY 682A. School Counseling Internship I: Group (3). Supervised counseling of child or adult groups. Prerequisites: PSY 561, PSY 593B, and permission of department chair. Grade will be $S$ or $U$.
PSY 682B. School Counseling Internship II: Advanced (1-12). Placement in the public schools (K-12). Prerequisite: PSY 593C and PSY 682A. Grade will be S or U.
PSY 683. School Psychology Internship (5-15). A full-time placement in school district (K-12). Prerequisite: permission of department chair. Grade will be $S$ or $U$.
PSY 684. Internship in Applied Experimental Psychology (3-12). Placement in professional setting in experimental psychology. Academic and professional activities supervised by faculty and site supervisors. Prerequisite: admission to experimental psychology masters program and permission of department chair.
PSY 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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.


## SCIENCE <br> EDUCATION <br> DEPARTMENT

Ellensburg
Science Building, room 107
509-963-2929
Fax: 509-963-1222
www.cwu.edu / ~scied
See Web site for how Science Education could be used for educational and career purposes.

## Faculty

Chair
Martha J. Kurtz, PhD,

## Professors

Martha J. Kurtz, PhD, chemistry and science education
Bruce C. Palmquist, PhD, physics and science education

## Associate Professor

Ian J. Quitadamo, PhD, biological sciences and science education

## Assistant Professors

Jennifer Dechaine, PhD, biological sciences and science education
Vanessa Hunt, PhD, science education
Beth Pratt-Situla, PhD, geological sciences and science education
Tim Sorey, PhD, chemistry and science education

Staff
Denee Scribner, secretary

## 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.

## Science Education Courses

SCED 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
SCED 501. Interdisciplinary Science Inquiry for Teachers (4). An interdisciplinary investigation of applied life, physical, and Earth science concepts applicable to K-12 classrooms using integrated contexts. Inquiry as it applies to scientific process and teaching is emphasized.

SCED 511. Watershed Activities to Enhance
Research in Schools (1-5). Interdisciplinary investigation of applied life, physical, Earth science, and resource management concepts and issues as they apply to integrating authentic watershed research into K-12 classroom. Prerequisite: permission of the instructor.
SCED 521. Life Science Concepts for Teachers (3). An in-depth look at specific life science concepts applicable to the K-12 classrooms using inquiry-based approaches. Scientific modeling and processes are emphasized.
SCED 541. Chemistry Concepts for Teachers
(3). An in-depth look at specific chemistry concepts applicable to the K-12 classrooms using inquiry-based approaches. Scientific modeling and processes are emphasized.
SCED 598. Special Topics (1-5).

## SOCIOLOGY DEPARTMENT

Ellensburg
Farrell Hall, room 409
509-963-1305
Fax: 509-963-1308
www.cwu.edu / ~sociolo
See Web site for how sociology could be used for educational and career purposes.

## Faculty and Staff

Chair
Hong Xiao, PhD

## Professors

Laura L. Appleton, PhD, sex and gender, death and dying, and sociology of religion Delores Cleary, PhD, criminology, the lifecourse, American society, minorities, ethnic studies, and American Indian issues
Kirk A. Johnson, PhD, criminology, delinquency, victimization, organizations, and methods
Hong Xiao, PhD, social stratification, social theory, comparative sociology, social ecology, and China studies

## Associate Professors

Nelson Pichardo, PhD, ethnic studies, and social movements

## Assistant Professors

Eric Cheney, PhD, deviance and social control, economic sociology, organizations, statistics and urban sociology
Michael Harrod, PhD, social psychology, criminology theory, intimate partner violence, statistics, research methods
Judith Hennessy, PhD, social welfare and poverty, gender, sociology of work, sociology of family
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

## Staff

Noella Wyatt, secretary

## Department Information

The Department of Sociology does not offer any graduate degrees.

## Sociology Courses

SOC 500. Professional Development (1-5). Development topics and issues for inservice and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
SOC 501. Social Science Research Methods (4). Principles of scientific research methodology applied to human behavior.
SOC 510. Ethics (1). Principles of ethical behavior. Repeatable for up to 2 credits.
SOC 557. Families in Society (3). Theories and critical analysis of families, specifically the social processes that organize and shape contemporary families.
SOC 564. Statistical Analysis of Social Data I (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.
SOC 565. Statistical Analysis of Social Data II (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.
SOC 566. Organization Research and Assessment (5). Principles of scientific research, methodology, and their application to the analysis of organizations. Prerequisite: introductory statistics or permission. Same as OD 566. Student may not receive credit for both.
SOC 596. Individual Study (1-6). Prerequisite: permission of instructor.
SOC 598. Special Topics (1-6).
SOC 599. Seminar (1-5). May be repeated.


# INTERDISCIPLINARY PROGRAMS 

## INDIVIDUAL STUDIES

Ellensburg
Barge Hall, room 305
509-963-3101
www.cwu.edu / ~avpugrad/individualstudy. htm

Program Coordinator
Roger Fouts, PhD

## Master of Arts Master of Education Master of Science

Purpose: The purpose of the individual studies (IS) program is to afford qualified applicants the opportunity to create sound master's degree programs of an interdisciplinary nature or focus on unique subject areas when the curricula of regular graduate degree programs do not meet the individuals' career objectives and/ or needs. The approval of such programs is dependent upon:

- The qualifications of the applicant
- The institution's ability to provide a sufficient number of relevant graduate level courses
- A sufficient number of faculty qualified and willing to work with the student
- Adequate scholarly and/or creative resources.
CWU will offer IS programs only in fields where appropriate expertise and other resources exist as determined by the dean of Graduate Studies and Research in consultation with the graduate council.

Each IS 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.

Approved IS programs are administered by an interdisciplinary committee appointed by, and with oversight from, the dean of Graduate Studies and Research. IS programs may be created under the master of arts, master of education, and master of science degree titles.

## Application Process: Anyone

 contemplating the creation of an IS program should first meet with the dean of Graduate Studies and Research before initiating the application process to discuss possible program options. The responsibility forcreating an acceptable IS rests entirely with the applicant. If admitted, a graduate student in this program is expected to be highly motivated. He or she must work closely with the program advisor(s) and provide the dean of Graduate Studies and Research with semiannual program status reports. An applicant to an IS master's degree program must be able to meet the minimum requirements for admission to graduate study at CWU, including a minimum of a 3.0 GPA in the last 90 quarter or 60 semester credit hours elected. The applicant must complete and submit a formal application, in accordance with the instructions in the application packet, including a non-refundable $\$ 50$ applicant fee. The GRE may be required at the discretion of the dean of Graduate Studies and Research.

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

Program Description: In addition to the documents and materials required for the admissions process, each IS applicant must include a description of the IS program he or she wishes to create. The applicant should include a detailed explanation of the rationale for this program and explain why her or his goals cannot be met by means of pursuing an established master's degree at CWU. The applicant should indicate how the proposed program would meet her or his educational objectives and professional aims.

Learner outcomes are critical to the success of CWU degree programs. As a result, each IS master's 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.

Program of Study: A comprehensive, proposed course of study is also required. The requisite form for detailing this may be obtained from the graduate school. A justification for the selection of each election proposed should be included in the course of study. Please note that general graduate school regulations appearing in the CWU catalog must be observed, and all IS programs must include a master's thesis. In the process of designing the curriculum, applicants are expected to consult the publications of universities nation-wide to identify any programs similar in content and design to the one sought. Such information may provide useful information in constructing the program of study.

Number of Credit Hours: For an IS program of study to be approved by the dean of Graduate Studies and Research, it must include a minimum of 45 quarter hours of graduate level credit, of which at least 25 credits must be numbered 501 or higher. In some cases more than the minimum of 45 credits will be required. The course of study must include six credits of 700 (Thesis) and may not normally include more than 10 credits of independent study. Prerequisite courses may also be required.

Graduate Committee: Each applicant seeking an IS program must propose a graduate committee to the dean of Graduate Studies and Research. Each committee member must be at least an associate member of the graduate faculty and the person whom the applicant wishes to chair the advisory committee must be a regular member of the graduate faculty. The applicant must work with these faculty to develop the proposed program of study. The proposed graduate committee members will meet with the dean of Graduate Studies and Research to discuss the applicant's program of study and may be asked to meet with the graduate council as well.

All proposed graduate committee members are expected to discuss their participation on this committee with their respective department chairs. Department chairs must agree to allow their faculty members to participate on the IS committee and all proposed committee members must certify their willingness to serve. The committee constitution will be reviewed by the dean of Graduate Studies and Research in conjunction with the graduate council. Following any needed discussions, the dean of Graduate Studies and Research in consultation with the graduate council, will determine the applicant's admissibility, along with the viability of the graduate committee, and communicate the decision to the applicant as quickly as possible.

## Examinations and Assessment: An

 oral final examination is required on work completed in partial fulfillment of the IS master's degree requirements. This examination must include a defense of the thesis and an examination of studies completed. 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 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:

[^1]October 1 for winter quarter
January 1 for spring quarter

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

## Individual Studies Courses

IS 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. Prior approval is required. The grade will be $S$ or $U$.
IS 596. Individual Study (1-6). Prerequisite: permission of the dean for Graduate Studies and Research.
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. Prerequisite: permission of chair of the student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.

## PRIMATE BEHAVIOR AND ECOLOGY

Ellensburg
Dean Hall, room 357A
509-963-3201
Fax: 509-963-3215
www.cwu.edu / ~primate
See Web site for how this program could be used for educational and career purposes.

## Program Director

Lori K. Sheeran, PhD, Anthropology, Dean Hall, room 335

## Professors

Daniel Beck, PhD, Biology, habitat selection, physiological ecology, foraging behavior, rattlesnake ecology, biology of helodermatid lizards
Roger Fouts, PhD, Psychology, comparative and general experimental psychology, language acquisition, primate behavior
Lixing Sun, PhD, Biology, ecology and evolution of animal behavior (especially communication systems), chemical ecology

## Associate Professors

Megan D. Matheson, PhD, Psychology, general experimental and comparative psychology, nonhuman primate social behavior, stress and coping, post-conflict behavior
Lori K. Sheeran, PhD, Anthropology, primate behavior, primate conservation, gibbon behavior and ecology, biological anthropology

Steve Wagner, PhD, Biology, conservation population genetics, herpetology, molecular evolution

## Assistant Professors

Mary Lee Jensvold, PhD, Anthropology, chimpanzee sign language studies, ape behavior, communication and culture, chimpanzee care and enrichment, nonverbal behavior
Joseph G. Lorenz, PhD, Anthropology, intraspecific genetic variation, molecular phylogenetics, ancient DNA, genotypephenotype associations, evolutionary anthropology

## Chimpanzee and Human Communication

 Institute (CHCI)Deborah Fouts, MS, Director, CHCI Bldg., room 111
Mary Lee Jensvold, PhD, Associate Director, CHCI Bldg., room 118

## Staff

Penelope Anderson, senior secretary, Anthropology
Lynn Whitacre, program coordinator, CHCI

## Primate Behavior, MS

This program is interdisciplinary and emphasizes the approaches and contributions to primatology made by biologists, anthropologists, and psychologists. 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 regulations 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 reading room in room 204 Dean Hall houses several hundred books, articles, and DVDs/videotapes related to primatology. The room includes a TV, DVD player, VHS player, and four computer work stations.

The PBE program has available for student use one video camera, two digital cameras, two DVD players, one television, observational software (The Observer), and two PDAs for using this software at remote locations. The Observer software can also be used on two desktop computers.

Students and faculty who have been approved to conduct research at CHCI may have access to resources housed there. These include an extensive library of articles, books, videos, and DVDs, and more than 20 years of archived video footage collected from the chimpanzees living there. CHCI also houses several VCRs, TVs, DVD players, video cameras, and computers that students can use in research projects conducted at CHCI. Access is considered on a case-by-case basis in consultation with the director and associate director of CHCI.

The Anthropological Genetics Laboratory in room 232 A Dean Hall is equipped for performing DNA extractions, PCR (Polymerase Chain Reaction) amplification, genotyping and DNA sequencing. Software for analyzing genetic data and performing phylogenetic analysis is also available.

The anthropology department owns casts of fossil and living nonhuman primates. These span a variety of taxa including prosimians, monkeys, and apes. Access is considered on a case-by-case basis in consultation with the anthropology faculty.

The PBE program is affiliated with the Conservation and Biodiversity Field School in China, which is coordinated through the CWU Office of International Study and Programs.

## Primate Behavior, MS

## Required Core Courses

PRIM 501 - Introduction to Primatology . . . . 4 PRIM 503 - Current Issues in Primatology . . 4 PRIM 504 - Primate Culture and Cognition . 4 PRIM 505 - History of Primate

Interconnections . $\qquad$ . . 4 PSY 550 - Research in Natural Environments 5

Subtotal Credits: 21

Additional Courses
Electives (to be selected by advisement) . . . 18 PRIM 700 - Thesis . . . . . . . . . . . . . . . . . . . . . . . . 6

Total Credits: 45

## Graduate Committee

The student will have at least a threemember 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.

## Primate Behavior and Ecology Courses

PRIM 501. Introduction to Primatology (4). Introduces students to the perspectives anthropologists, biologists, and psychologists bring to the study of 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 or permission of instructor.
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 or permission of instructor.
PRIM 505. History of Primate Interconnections (4). Survey of the history of human views and uses of nonhuman primates from 1600 through the present; consideration of evolutionary, psychological, and historical interconnections among primates. Prerequisite: PRIM 501 or permission of instructor.
PRIM 511. Primate Conservation (4). A seminar that focuses on conservation issues of particular relevance for nonhuman primates, including deforestation, bushmeat hunting, and pet trade, and on conservation strategies, including reintroduction, captive management, and ecotourism. PRIM 511 and ANTH 411 are equivalent courses.

## PRIM 595A. Graduate Research in

Primatology (1-10). Organize or conduct an approved laboratory and/or field research problem. Prerequisite: permission of instructor. Maximum of 10 credits may be included on course of study for the master's degree.
PRIM 595C. CHCI Graduate Research (1-10). Organize or conduct an approved research problem based at Chimpanzee and Human Communication Institute. Prerequisite:
permission of instructor Maximum of 10 credits may be included on course of study for the Master's degree.
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be S or U .

## RESOURCE <br> MANAGEMENT

Ellensburg
FAX: 509-963-1047
www.cwu.edu / ~rem /

## Faculty

## Program Coordinators

Natural Resources
Karl Lillquist, PhD
Department of Geography
Lind Hall, room 319
509-963-1184
lillquis@cwu.edu

## Cultural Resources

Steven Hackenberger, PhD
Department of Anthropology
Dean Hall, room 349
509-963-3224
hackenbe@cwu.edu

## Professors

Tracy J. Andrews, PhD, anthropology, cultural anthropology, political ecology, Native America, environmental and medical anthropology
Anthony Gabriel, PhD, geography, resource analysis, physical geography, shoreline inventory and assessment, aquatic systems
Steven Hackenberger, PhD, anthropology, archaeology, paleoecology, cultural resource management, Columbia Plateau
Robert Hickey, PhD, geography, GIS remote sensing, environment, geology, erosion modeling, Australia
James L. Huckabay, PhD, geography, conflict studies, energy, wildlife, aerial photography, western United States
Nancy Hultquist, PhD, geography, human geography, GIS, remote sensing, stewardship of public lands
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
Morris Uebelacker, PhD, geography, cultural geography, rivers, resource and land utilization patterns, cultural resource management
Rex Wirth, PhD, political science, resource policy in developing nations

Associate Professors
Gregory Brown, PhD, environmental studies, natural resource policy, land use planning, geographic information systems
James Cook, PhD, history, Asian studies, environmental history, China/Japan, desertification, water resource management
Daniel Herman, PhD, history, 19th-century American West, American Indian history, American cultural history
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

## Assistant Professors

John Bowen, PhD, geography, transportation, economic development, quantitative methods, Southeast Asia
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
Michael Pease, PhD, geography, water resource management, environmental law, resource allocation
Craig Revels, PhD, geography, cultural and historical geography, cultural ecology Charles Wassell, PhD, economics, mathematical modeling of economic issues with policy implications
William W. Wood, PhD, anthropology, museum studies, cultural anthropology, ecotourism and development, Latin America

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 regulations 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 postgraduate 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.

## Required Core Courses

ECON 462 .5

REM 501 - Introduction to Resource
Management
REM 502 - Policy and Law in Resource
Management
.4

REM 505 - Introduction to Graduate
Research
REM 506 - Resource Management
Colloquium (1).
.................... 2
Must be repeated for 2 credits.
REM 522 - Resource Analysis . . . . . . . . . . . . . 5
REM 562 - Issues and Conflicts in Resource
Management
Subtotal Credits: 27

Additional Courses

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

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.

## Resource Management Courses

REM 501. Introduction to Resource
Management (4). The nature of resources, traditional systems of resource management, problems associated with resource "ownership," and 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 resourcerelated policies and legislation, current legislation and policies, future directions in resource policy.

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. Prerequisite: permission of instructor.
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, once as an attendee who must also present their research proposal. Grade will be S/U.
REM 515. GIS in Resource Management
(3). Introduction to uses and management applications of Geographic Information Systems, with emphasis on discovering its utility as a technology for both natural and cultural resources.
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.
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 equivalent courses. Student may not receive credit for more than one.
REM 562. Issues and Conflicts in Resource
Management (3). Current issues and problems in resource management.
REM 590. Internship (1-8). Supervised off-campus practical experience in accordance with a written agreement between student, faculty, and cooperating agency. Prerequisite: approval of program coordinator. Grade will be S or U . May be repeated for credit.
REM 593. Resource Management Field Experience (1-8). Off-campus experience in the field study of resource management. Prerequisite: permission of instructor and program director. May be repeated for credit.
REM 595. Graduate Research (1-10). May be repeated for credit. Formerly REM 597
REM 598. Special Topics (1-5).
REM 599. Seminar (1-3).
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. Prerequisite: permission of chair of student's graduate faculty supervisory committee. Grade will be either S or U. May be repeated for up to 6 credits.



## TRUSTEES

## Dan Dixon, BA

Seattle (September 30, 2012)
Sid Morrison, BS
Zillah (September 30, 2015)
Patricia Notter, BA
Wenatchee (September 30, 2012)
Kate Reardon, BA
Everett (September 30, 2011)
Annette Sandberg, JD
Davenport (September 30, 2014)
Keith Thompson, BA
Spokane (September 30, 2013)
Brent Weisel, BS, Student Trustee
Ellensburg (June 30, 2010)

## EXECUTIVE OFFICERS

James L. Gaudino, PhD
President
Wayne Quirk, PhD
Provost/Senior Vice President for Academic Affairs
Bill Vertrees, MEd
Vice President for Business and Financial Affairs
Charlotte E. Tullos, PhD
Vice President for Student Affairs and
Enrollment Management
Sherer M. Holter, JD
Chief of Staff

## PRESIDENT'S DIVISION

James L. Gaudino, PhD
President
Alan Smith, JD
Assistant Attorney General
Sherer M. Holter, JD
Chief of Staff
Jack Bishop, MEd
Director, Athletics
Mark Lundgren, MA
Director, Institutional Research
Margaret A. Smith, MA
Director, Internal Audit
Staci Sleigh-Layman, MS
Director, Office for Equal Opportunity
Linda Schactler, MA
Director, Public Affairs
Jen Gray, MS
Director, University Advancement

## ACADEMIC AFFAIRS

## Wayne Quirk, PhD

Provost/Senior Vice President for Academic Affairs

## Tracy Pellett, EdD

Associate Vice President for Undergraduate Studies
Margaret Badgley, MA
Assistant to the Provost for University
Centers and Community College Relations
Dennis Defa, MS, MA
Assistant Vice President for Faculty Relations
Marji Morgan, PhD
Dean, College of Arts and Humanities
Michael Chinn, MFA
Associate Dean, College of Arts and
Humanities

Roy Savoian, PhD
Dean, College of Business
Laura Milner, PhD
Associate Dean, College of Business
Connie Lambert, PhD
Interim Dean, College of Education and Professional Studies
Ethan Bergman, PhD
Associate Dean, College of Education and Professional Studies
Kirk Johnson, PhD
Interim Dean, College of the Sciences
Dave Darda, PhD
Associate Dean, College of the Sciences
Roger Fouts, PhD
Interim Dean, Graduate Studies and Research
Patricia Cutright, ML
Dean, Library Services
Michael Launius, PhD
Executive Director, International Studies and Programs
Neil McFarlane, PhD
Director, Academic Achievement and Student Support Services
Scott Carlton, MS
Director, Academic Advising
Jan Bowers, PhD
Director, Center for the Teacher/Scholar
Kevin Nemeth, MS
Director, Continuing Education
David Kaufman, PhD
Director, Multimedia Technology and Instructional Support
Matthew Altman, PhD
Director, William O. Douglas Honors College

## STUDENT AFFAIRS AND

ENROLLMENT MANAGEMENT
Charlotte E. Tullos, PhD
Vice President for Student Affairs and Enrollment Management
Keith M. Champagne, MS
Associate Vice President for Student Affairs
John Swiney, PhD
Associate Vice President for Enrollment Management
Jack Baker, MS
Assistant to the Vice President for Student Affairs and Enrollment Management, Chief Conduct Officer
Richard DeShields, MEd
Senior Director, University Housing and New Student Programs
John E. Drinkwater, MEd (Retiring June 2010)
Senior Director, Campus Life and Student Union
Randy Robinette, PhD
Interim Senior Director, Student Health and
Counseling
Katrina A. Whitney, MEd
Senior Director, Center for Student
Empowerment
Lorinda Anderson, BA
Director, Don and Verna Duncan Civic
Engagement Center
Mateo Arteaga, MEd
Director, Educational Outreach Services,
EOC, HEP, CAMP

Agnes Canedo, MSOD
Director, Financial Aid
Janie Charlton, BA
Director, Early Childhood Learning Centers
Gail Farmer, MA, MBA
Director, Wellness Center
Kathy Gaer-Carlton, BA
Interim Director, Admissions
Lisa Garcia-Hanson, BA
Director, SAEM Assessment and Research
Robert Harden, MA
Director, Center for Disability Support/ADA Compliance Officer
Jackson B. Horsley, MD
Medical Director, Student Health and
Counseling
Chris Hull, BA
General Manager, KCWU Radio
Jenna Hyatt, MA
Director, Residence Life \& New Student Programs
Jaqualyn Johnson, MS
Director, Career Services
Marian Lien, BA, BS
Interim Director, Diversity Education Center
Rhonda McKinney, MS
Director of Counseling / Associate Director,
Student Health and Counseling
Jesse Nelson, PhD
Director, David Wain Coon Center for
Excellence in Leadership
Tracy Terrell, BS Registrar
Carolyn Thurston, MA
Director, STAR Program
Steve Waldeck, BA
Director, University Recreation

## BUSINESS AND FINANCIAL AFFAIRS

Bill Vertrees, MEd
Interim Vice President for Business and Financial Affairs
Ed A. Day, CPA
Assistant Vice President for Financial Services
Shelly Baird, MBA Assistant Vice President for Budget and Student Financial Services
Steve Rittereiser, BA
Assistant Vice President for Business Auxiliaries and Public Safety
Robert Tosch, BA Assistant Vice President for Facilities Management
Sherer Holter, JD Assistant Vice President for Human Resources

## Carmen Rahm, MBA

Assistant Vice President for Information Technology
Bruce Porter, BS
Director, Business Services and Contracts
Ken Baxter, BS
Senior Director, Conference, Retail Services, and Auxiliary Business Development
Dan Layman, MBA
Director, Dining Services
Jana Kruckenberg, BS
Manager, Student Financial Services
Steve Wenger, BA
Manager, Wildcat Shop

## Faculty as of February 20, 2010:

Abdalla, Laila: Professor, Department of English; PhD, McGill University, Canada

Adams, Susan: Assistant Professor, Department of Nutrition Exercise \& Health Science; MS, University of Washington

Adkinson, Cheryl: Lecturer, Department of Family \& Consumer Sciences

Adkisson, Kevin: Senior Head Coach, Department of Athletics; MS, Central Washington University

Airth, Paula: Assistant Professor, Department of Art; MFA, University of Utah

Albrecht, Karl: Coach, Department of Athletics

Aldcroft, Julie: Lecturer, Department of Sociology; PhD, University of Liverpool, England

Alexandrou, Alexander: Lecturer, Department of Education Foundations \& Curriculum; MEd, George Washington University

Allen, Robert: Lecturer, Department of Management; MA, University of Washington

Alsoszatai-Petheo, John: Professor, Department of Anthropology; PhD, University of Alberta, Canada

Altman, Matthew: Assistant Professor, Department of Douglas Honors College;
PhD, University of Chicago
Amos, Yukari: Assistant Professor,
Department of Language Literacy \& Special
Education; PhD, University of Washington
Andaya, Mario: Head Coach, Department of Athletics; BS, Central Washington University

Andersen, Carol: Lecturer, Department of Physical Education, School \& Public Health; MA, University of Oklahoma

Andler, Michael: Lecturer, Department of Industrial \& Engineering Technology; BS, Central Washington University

Andonie, Razvan: Professor, Department of Computer Science; PhD, University of Bucharest, Romania

Andrews, Tracy: Professor, Department of Anthropology; PhD, University of Arizona

Appleton, Laura: Professor, Department of Sociology; PhD, University of CaliforniaSanta Barbara

Arango, Clay: Lecturer, Department of Biological Sciences; PhD, University of Notre Dame

Armstrong, Liahna: Professor, Department of Art; PhD, University of California-Los Angeles

Armstrong, Sue: Lecturer, Department of Law \& Justice; JD, Puget Sound School of Law

Atkinson, Maryanne: Associate Professor, Department of Accounting; PhD, Drexel University

Avey, James: Assistant Professor, Department of Management; PhD, University of Nebraska-Lincoln

Babbitt, Mark: Associate Professor, Department of Music; DMA, University of Washington

Bach, Glen: Professor, Department of Art; MFA, Norwich University

Backlund, Judy: Senior Lecturer, Department of Language Literacy \& Special Education; MEd, Central Washington University

Backlund, Philip: Professor, Department of Communication; PhD, University of Denver

Bagamery, Bruce: Professor, Department of Finance \& Supply Chain Management; PhD, Northwestern University

Bailor, Raeanne: Lecturer, Department of Continuing Education; MEd, Lesley University

Ballou, Gary: Assistant Professor, Department of Education Foundations \& Curriculum; PhD, Antioch University

Bannish, Christopher: Coach, Department of Athletics; MS, Central Washington University

Barlow, Howard: Lecturer, Department of Art; MFA, Central Washington University

Barlow, Kathleen: Professor, Department of Anthropology; PhD, University of California-San Diego

Barrigan, Christina: Associate Professor, Department of Theatre Arts; MFA, University of Texas-Austin

Bartel, Kimberlee: Associate Professor, Department of Family \& Consumer Sciences; PhD, Utah State University

Bartlett, Gary: Assistant Professor, Department of Philosophy \& Religious Studies; PhD, Rutgers State University

Bayazit, Ozden: Associate Professor, Department of Finance \& Supply Chain Management; PhD, Ankara University, Turkey

Beaghan, James: Professor, Department of Management; DBA, United States International University, Kenya

Beardsley, Roger: Assistant Professor, Department of Industrial \& Engineering Technology; MS, Central Washington University

Beauclair, Alain: Assistant Professor, Department of Philosophy \& Religious Studies; PhD, University of Oregon

Beck, Daniel: Professor, Department of Biological Sciences; PhD, University Arizona

Becker, Melissa: Lecturer, Department of Accounting; MBA, Baylor University

Beckley, Gloria: Assistant Professor, Department of Sociology; PhD, University of Washington

Bellah, George: Associate Professor, Department of Theatre Arts; MFA, University of North Carolina

Belofsky, Gil: Assistant Professor, Department of Chemistry; PhD, University of Iowa

Bender, William: Professor, Department of Industrial \& Engineering Technology; PhD, University of Maryland

Bennett, Blaine: Head Coach, Department of Athletics

Bennett, Michelle: Lecturer, Department of Law \& Justice; EdD, Seattle Pacific University

Bennett, Virginia: Assistant Professor, Department of Nutrition Exercise \& Health Science; PhD, University of California-Davis

Benson, Kelly: Assistant Professor, Department of Education Foundations \& Curriculum; EdD, University of Montana

Bernadas, Christine: Assistant Professor, Department of Information Technology \& Adminstrative Mangement; PhD, Texas A\&M International University

Bertelson, Catherine: Professor, Department of Education Foundations \& Curriculum; PhD, University Minnesota-Minneapolis

Betts, Timothy: Lecturer, Department of Music; MM, Ithaca College

Bisgard, James: Assistant Professor, Department of Mathematics; PhD, University Wisconsin-Madison

Black, Christine: Assistant Professor, Department of Mathematics; PhD, University of Massachusetts-Amherst

Blair, Karen: Professor, Department of History; PhD, SUNY-Buffalo

Blaisdell, Gayla: Assistant Professor, Department of Music; PhD, New York University

Boersma, Stuart: Professor, Department of Mathematics; PhD, Oregon State University

Bohrson, Wendy: Professor, Department of Geological Sciences; PhD, University of California-Los Angeles

Borkowski, David: Lecturer, Department of Industrial \& Engineering Technology; BS, Central Washington University

Boschee, Martin: Lecturer, Department of Accounting; MBA, University of Washington

Bottcher, Lucy: Senior Lecturer, Department of Biological Sciences; PhD, Northern Arizona University

Bouillon, Marvin: Professor, Department of Accounting; PhD, University of Kansas

Bourgault, Kevin: Lecturer, Department of Political Science; MPA, Duke University

Bowen, John: Assistant Professor, Department of Geography; PhD, University of Kentucky

Bowers, Janet: Professor, Department of Family \& Consumer Sciences; PhD, Kansas State University-Manhattan

Bowers, Rebecca: Professor, Department of Education Foundations \& Curriculum; EdD, University of North Carolina

Boyle, Peter: Associate Professor, Department of Management; PhD, Cornell University

Brammer, Robert: Associate Professor, Department of Psychology; PhD, University of Southern California

Bransdorfer, Rodney: Professor, Department of Foreign Languages; PhD, University of Illinois-Urbana

Braunstein, Lori: Professor, Department of Information Technology \& Adminstrative Mangement; PhD, Utah State University

Braunstein, Michael: Associate Professor, Department of Physics; PhD, University of Colorado-Boulder

Breedlove, Lois: Associate Professor, Department of Communication; MA, American University

Briggs, Kenneth: Professor, Department of Physical Education, School \& Public Health; EdD, University of Northern Colorado

Britto, Marwin: Associate Professor, Department of Education Technology Center; PhD, University of Georgia

Britto, Sarah: Associate Professor, Department of Law \& Justice; PhD, Florida State University

Brooks, Joseph: Professor, Department of Music; MM, University of Oregon

Brooks, Stephen: Lecturer, Department of English; MA, San Francisco State College

Brown, David: Assistant Professor, Department of Theatre Arts; MM, Central Washington University

Brown, Gregory: Associate Professor, Department of Geography; PhD, University of Idaho

Brown, Prairie: Lecturer, University Writing Center; MA, Central Washington University

Brown, Terri: Assistant Professor, Department of Theatre Arts; PhD, Bowling Green State University

Brunner, Susan: Lecturer, Department of Nutrition Exercise \& Health Science; MA, University of Missouri

Bruya, Christopher: Professor, Department of Music; MM, Central Washington University

Budner, Nancy: Lecturer, Department of Mathematics; MA, Adams State College

Burnham, Tim: Associate Professor, Department of Nutrition Exercise \& Health Science; PhD, Oregon State University

Busha, Cathy: Lecturer, Department of Law \& Justice; JD, Santa Clara University

Butterfield, Carol: Professor, Department of Language Literacy \& Special Education; PhD, University of Arizona

Buvit, Ian: Lecturer, Department of Anthropology; PhD, Washington State University

Calahan, Scott: Associate Professor, Department of Industrial \& Engineering Technology; MEd, Heritage University

Callaghan, Patricia: Professor, Department of English; PhD, University of Oregon

Callihan, Philip: Lecturer, Department of Accounting; MBA, Wilmington College

CannCasciato, Daniel: Professor, CWU Brooks Library; MLS, University of CaliforniaBerkeley

Cao, Yong: Lecturer, Department of Communication; MA, University of TexasAustin

Caoile, Nikolas: Assistant
Professor,Department of Music; DMA, University of Michigan

Carbaugh, Robert: Professor, Department of Economics; PhD, Colorado State University

Carlson, Robert: Lecturer, Department of Nutrition Exercise \& Health Science; BA, University of Washington

Carnell, Lucinda: Assistant Professor, Department of Biological Sciences; PhD, University of California-Berkeley

Carns, David: Professor, Department of Industrial \& Engineering Technology; MS, Oregon State University

Carpenter, G.: Lecturer, Department of Physical Education, School \& Public Health

Cashman, Linda: Assistant Professor, Department of Nutrition Exercise \& Health Science; MS, Texas Woman's University

Cates, Jennifer: Assistant Professor, Department of Psychology; PhD, University of Nevada

Cattin, William: Lecturer, Department of Industrial \& Engineering Technology; BS, Central Washington University

Cazares, Jenee: Senior Lecturer, Department of University English as a Second Language; MA, Central Washington University

Chachava, Maia: Associate Professor, Department of Art; MFA, University of Washington

Chamberland, Stephen: Assistant Professor, Department of Chemistry; PhD, University of California-Irvine

Chandler, Charles: Coach, Department of Athletics; BA, Central Washington University

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Pflug, Anne: Lecturer, Department of Political Science; MBA, Seattle University

Piacsek, Andrew: Assistant Professor, Department of Physics; PhD, Pennsylvania State University

Picha, John: Assistant Coach, Department of Athletics; BA, Central Washington University

Pichardo, Nelson: Associate Professor, Department of Sociology; PhD, University of Michigan

Pickett, Barbara: Lecturer, Department of Music; MM, Indiana University

Pickett, John: Professor, Department of Music; DMA, Indiana University-Bloomington

Pierce, James: Lecturer, Department of Nutrition Exercise \& Health Science

Pigeon, Nancy: Assistant Professor, Department of Management; JD, McGeorge School of Law

Pimomo, Paulus: Professor, Department of English; PhD, Southern Illinois University

Pinkart, Holly: Associate Professor, Department of Biological Sciences; PhD, University of Tennessee-Knoxville

Pitts, Michael: Lecturer, Department of Continuing Education; MA, Valdosta State College

Plambeck, Kevin: Lecturer, Department of Family \& Consumer Sciences; MEd, City University

Plourde, Lee: Associate Professor, Department of Education Foundations \& Curriculum; PhD, University of Hawaii-Manoa

Plugge, Philip: Assistant Professor, Department of Industrial \& Engineering Technology; PhD, Colorado State University

Polage, Danielle: Assistant Professor, Department of Psychology; PhD, University of Washington

Porterfield, Miranda: Lecturer, Department of Continuing Education; MBA, Bordeaux Business School

Poulson, Mary: Associate Professor, Department of Biological Sciences; PhD, University of Illinois-Urbana

Powell, Joseph: Professor, Department of English; MFA, University of Arizona

Prante, Tyler: Assistant Professor, Department of Economics; PhD, University of New Mexico

Pratt-Sitaula, Beth: Assistant Professor, Department of Geological Sciences; PhD, University of California-Santa Barbara

Pringle, Charles: Assistant Professor, Department of Industrial \& Engineering Technology; MS, Central Washington University

Pritchard, Mark: Associate Professor, Department of Management; PhD, University of Oregon

Pritchett, Robert: Assistant Professor, Department of Nutrition Exercise \& Health Science; PhD, University of Alabama

Provaznik, William: Assistant Professor, Department of Management; MBA, University of Nebraska-Omaha

Quirk, Chloe: Assistant Coach, Department of Athletics; BS, North Dakota State University

Quitadamo, Ian: Associate Professor, Department of Science Education; PhD, Washington State University

Rabak, Thomas: Lecturer, Department of Psychology; MS, Central Washington University

Radeke, Mary: Lecturer, Department of Psychology; MS, Central Washington University

Randall, Paul: Lecturer, Department of Family \& Consumer Sciences; MEd, Eastern Washington University

Rath, Sura: Professor, Department of English; PhD, Texas A\&M University

Raubeson, Linda: Professor, Department of Biological Sciences; PhD, Yale University

Rawlinson, David: Associate Professor, Department of Information Technology \& Adminstrative Mangement; JD, South Texas College of Law

Ray, Chantell: Lecturer, Department of Physical Education, School \& Public Health; BA, Central Washington University

Reasons, Charles: Professor, Department of Law \& Justice; PhD, Washington State University

Reed, Linda: Lecturer, Department of Teaching Elementary, Adolescent \& Young Children; MA, University of Washington

Reimund, Mary: Associate Professor, Department of Law \& Justice; JD, Drake University

Revels, Craig: Assistant Professor, Department of Geography; PhD, Louisiana State University

Richard, Michael: Lecturer, Department of Communication

Richardson, Gary: Associate Professor, Department of Finance \& Supply Chain Management; PhD, University of TexasArlington

Richmond, F: Associate Professor, Department of Management; PhD, University of Oregon

Rieffer-Flanagan, Barbara Ann: Assistant Professor, Department of Political Science; PhD, University of Nebraska

Rittenhouse, Robert: Lecturer, Department of Chemistry; PhD, Worcester Polytechnic Institute

Rivera, Dion: Assistant Professor, Department of Chemistry; PhD, University of Utah

Roberts, James: Associate Professor, Department of Law \& Justice; JD, Southern Illinois University

Roberts, Peggy: Lecturer, Department of Sociology; MS, Central Washington University

Roberts, Randy: Lecturer, Department of Sociology

Robertson, Juan: Lecturer, Department of Industrial \& Engineering Technology; PhD, University of California

Robinson, Connie: Lecturer, Department of Sociology; PhD, William C. Kimmel University

Robinson, Scott: Professor, Department of Theatre Arts; MFA, Illinois State University

Robison, Stephen: Assistant Professor, Department of Art; MFA, University of Iowa

Romboy, Dieter: Associate Professor, Department of Foreign Languages; PhD, University of Utah

Rosell, Sharon: Assistant Professor, Department of Physics; MS, University of Washington

Ross, Beth: Lecturer, Department of Aviation; JD, Ohio Northern University

Ross, Elaine: Assistant Professor, Department of Music; PhD, Texas Tech University

Ross, Molly: Assistant Professor, Department of Education Foundations \& Curriculum; EdD, Seattle University

Rosser, Carl: Senior Lecturer, Department of University English as a Second Language; PhD, University of Iowa

Rothenberg, Florie: Lecturer, Department of Music; DMA, University of Arizona

Rubin, Charles: Professor, Department of Geological Sciences; PhD, California Institute of Technology

Ruble, Michael: Associate Professor, Department of Accounting; PhD, Arizona State University-Tempe

Rudie, Erik: Lecturer, Department of Physical Education, School \& Public Health

Salyer, Brian: Associate Professor, Department of Teaching Elementary, Adolescent \& Young Children; PhD, Oklahoma State University-Stillwater

Sanders, Maria: Assistant Professor, Department of Communication; MFA, American Film Institute

Santamaria Graff, Cristina: Assistant Professor, Department of Language Literacy \& Special Education; PhD, University of Arizona

Saunders, Peter: Professor, Department of Economics; PhD, University of Colorado, Boulder

Schaefer, Todd: Professor, Department of Political Science; PhD, Northwestern University

Schaefle, Scott: Assistant Professor, Department of Psychology; PhD, University of Nevada

Schedler, Christopher: Associate Professor, Department of English; PhD, University of California-Santa Barbara

Schepman, Stephen: Professor, Department of Psychology; PhD, Purdue University-West Lafayette

Schmidt, Linda: Lecturer, Department of Mathematics; MS, University of Central Florida

Schmitz, Steven: Professor, Department of Education Foundations \& Curriculum; EdD, Washington State University

Schnelle, Robert: Senior Lecturer, Department of English; MA, Middlebury College

Schwartz, Terrence: Associate Professor, Department of Psychology; PhD, University of Washington

Schwing, James: Professor, Department of Computer Science; PhD, University of Utah

Seidenstadt, Robert: Lecturer, Department of Psychology; PhD, University of New Hampshire

Sell, Terry: Lecturer, Department of Political Science; PhD, University of Washington

Selski, Daniel: Assistant Professor, Department of Biological Sciences; PhD, University of Rochester

Selzler, Shannon: Lecturer, Department of Teaching Elementary, Adolescent \& Young Children; MS, Walden University

Sheeran, Lori: Associate Professor, Department of Anthropology; PhD, Ohio State University Columbus

Shorr, David: Professor, Department of Teaching Elementary, Adolescent \& Young Children; PhD, University of Washington

Singh, Vijay: Professor, Department of Music; MS, Portland State University

Sledge, Andrea: Associate Professor, Department of Language Literacy \& Special Education; PhD, University of Arizona

Sloan, Teresa: Professor, Department of Aviation; MA, Gonzaga University

Smith, Bret: Associate Professor, Department of Music; PhD, University of Michigan

Smith, Carlo: Assistant Professor, Department of Finance \& Supply Chain Management; PhD, University of Tennessee-Knoxville

Smith, Eva: Lecturer, Department of Information Technology \& Adminstrative Mangement; MS, University of Washington

Smith, Michael: Professor, Department of Theatre Arts; MFA, University of Oklahoma

Smith, Stamford: Senior Lecturer, Department of Biological Sciences; PhD, University of Idaho

Smoke, Jane: Lecturer, Department of Mathematics; MEd, Seattle University

Snedeker, Jeffrey: Professor, Department of Music; DMA, University of WisconsinMadison

Soelling, Mark: Senior Lecturer, Department of Psychology; PhD, California School of Professional Psychology

Solem, Gregory: Lecturer, Department of Management; MS, Florida Institute of Technology

Sorenson Zollars, Kristi: Lecturer, Department of Physical Education, School \& Public Health

Sorey, Tim: Assistant Professor, Department of Chemistry; PhD, Montana State University-Bozeman

Spall, Hugh: Professor, Department of Management; PhD, Michigan State University

Sparling, Greg: Head Coach, Department of Athletics; BA, Central Washington University

Spencer, Emelie: Lecturer, Department of Music; MM, Central Washington University

Springer-Lund, Diana: Senior Lecturer, Department of Computer Science; MA, Alliant International University

Spybrook, Janet: Assistant Professor, Department of Language Literacy \& Special Education; EdD, University of San Francisco

St.George, Gerald: Lecturer, Department of Education Foundations \& Curriculum; MEd, Central Washington University

St. Jean, Joseph: Lecturer, Department of Teaching Elementary, Adolescent \& Young Children; MEd, Central Washington University

Staab, Tobias: Lecturer, Department of Communication; MEd, Central Washington University

Stacy, Gerald: Senior Lecturer, Department of Douglas Honors College; PhD, Bowling Green State University-Fireland

Stafford, Davida: Lecturer, Department of Law \& Justice

Stahelski, Anthony: Professor, Department of Psychology; PhD, University of CaliforniaLos Angeles

Stange, Ericka: Lecturer, Department of Sociology; MA, University at Albany

Stein, Stephanie: Professor, Department of Psychology; PhD, University of Oregon

Stein, Stephen: Lecturer, Department of Mathematics; PhD, Capella University

Stinson, Jeffrey: Assistant Professor, Department of Management; PhD, University of Oregon

Stoddard, Shari: Associate Professor, Department of Art; PhD, Indiana University

Storey, Desi: Head Coach, Department of Athletics; BS, Central Washington University

Strawn, Jessica: Lecturer, Department of Sociology; MA, Washington State University

Stryker, Gabrielle: Assistant Professor, Department of Biological Sciences; PhD, John Hopkins University

Sun, Key: Associate Professor, Department of Law \& Justice; PhD, Rutgers University

Sun, Lixing: Professor, Department of Biological Sciences; PhD, State University of New York

Sund, James: Lecturer, University Math Center; MS, Central Washington University

Sutphin, Christine: Professor, Department of English; PhD, University of Oregon

Swanson, Tanner: Lecturer, Department of Nutrition Exercise \& Health Science; BS, Central Washington University

Szal, Dennis: Assistant Professor, Department of Advanced Programs; EdD, University of Wyoming

Szpek, Heidi: Associate Professor, Department of Philosophy \& Religious Studies; PhD, University of WisconsinMadison

Takei, Hideki: Assistant Professor, Department of Information Technology \& Adminstrative Mangement; DBA, Southern New Hampshire University

Taussig-Simpson, Gretchen: Lecturer, Department of Nutrition Exercise \& Health Science; MS, Central Washington University

Temple, Kathryn: Assistant Professor, Department of Mathematics; PhD, University of Wisconsin

Tenerelli, Thomas: Assistant Professor, Department of Economics; PhD, University of Chicago

Terry, Karisa: Lecturer, Department of Anthropology; MA, Texas A\&M University

Thomas-Bradley, Carin: Associate Professor, Department of Chemistry; PhD, University of Nevada-Reno

Thyfault, Alberta: Professor, Department of Language Literacy \& Special Education; PhD, Oregon State University

Tidd, Ronald: Professor, Department of Accounting; PhD, University of Minnesota, Twin Cities

Tolzin, Keith: Lecturer, Department of Industrial \& Engineering Technology; PhD, Walden University

Trudgeon, Richard: Senior Lecturer, Department of Mathematics; MA, Gonzaga University

Trumpy, Robert: Assistant Professor, Department of Information Technology \& Adminstrative Mangement; EdD, Seattle University

Turcotte, Karen: Senior Lecturer, Department of Philosophy \& Religious Studies; MA, Central Washington University

Turnbull, Scott: Lecturer, Department of Political Science; JD, Seattle University of Law

Uebelacker, Morris: Professor, Department of Geography; PhD, University of Oregon

Unruh, Richard: Assistant Professor, Department of Nutrition Exercise \& Health Science; EdD, University of Montana

Volyn, Scott: Lecturer, Department of Communication; JD, University of Idaho

Wagner, Ronald: Associate Professor, Department of Biological Sciences; PhD, Oregon State Unversity

Wahle, Charles: Lecturer, Department of Information Technology and Adminstrative Management; MEd, Central Washington University

Walker, Sharryn: Assistant Professor, Department of Language Literacy \& Special Education; PhD, University of Toledo

Walker, Teresa: Assistant Professor, Department of Teaching Elementary, Adolescent \& Young Children; MEd, Southwestern College

Wallace, Michael: Lecturer, Department of Information Technology \& Adminstrative Mangement; MDI, Nyack College Alliance Theological Seminary

Wallin, Jason: Lecturer, Department of Psychology; BS, Central Washington University

Wang, Fang: Assistant Professor, Department of Finance \& Supply Chain Management; PhD, West Virginia University

Wang, Fen: Assistant Professor, Department of Information Technology \& Adminstrative Mangement; PhD, University of Maryland

Wang, Penglin: Professor, Department of Anthropology; PhD, University of HawaiiManoa

Ward, Paul: Assistant Professor, Department of Physical Education, School \& Public Health; PhD, University of Northern Colorado

Wassell, Charles: Associate Professor, Department of Economics; PhD, University of Wisconsin-Madison

Watkins, Shani: Lecturer, Department of Information Technology \& Adminstrative Mangement; MEd, Central Washington University

Weberling, Dean: Lecturer, Department of Teaching Elementary, Adolescent \& Young Children; BA, Central Washington University

Weidenaar, Gary: Assistant Professor, Department of Music; DMA, University of Kansas

Wells, Robert: Assistant Professor, Department of Communication; PhD , University of Maryland

Wentworth, Sandra: Assistant Professor, Department of Language Literacy \& Special Education; PhD, University of Southern Mississippi

Whelan, Michael: Associate Professor, Department of Industrial \& Engineering Technology; PhD, Iowa State University

Whitcomb, Katharine: Associate Professor, Department of English; MFA, Norwich University

Whitmire, Jane: Assistant Professor, Department of Mathematics; PhD, the University of Montana

Whitney, Emily: Lecturer, Department of Physical Education, School \& Public Health

Whitney, Jeff: Head Coach, Department of Athletics; BS, Central Washington University

Wibe, Maria: Senior Lecturer, Department of Music; PhD, Russian Institute of Art History

Width, Dale: Senior Lecturer, Department of Mathematics; MA, Central Washington University

Willard, Teri: Assistant Professor, Department of Mathematics; EdD, Montana State University-Bozeman

Williams, Henry: Professor, Department of Advanced Programs; EdD, East Tennessee State University

Williams, Wendy: Associate Professor, Department of Psychology; PhD, University of California-San Diego

Willis, Scott: Senior Lecturer, Department of Law \& Justice; MS, Central Washington University

Wilson, Asher: Lecturer, Department of Accounting; JD, University of Washington

Wilson, Dale: Professor, Department of Aviation; MS, Central Missouri State University

Wilson, Theresa: Lecturer, Department of Management; MBA, University of Washington

Winberry, Jeremy: Research Associate, Department of Geological Sciences; PhD, Pennsylvania State University

Wirth, Rex: Professor, Department of Political Science; PhD, University of Tennessee Knoxville

Wise, Mary: Professor, CWU Brooks Library; MLS, California State University Fullerton

Wood, William: Assistant Professor, Department of Anthropology; PhD, University of Illinois

Woodcock, Bruce: Lecturer, Department of Mathematics; MEd, Western Washington University

Woodcock, Don: Professor, Department of Education Foundations \& Curriculum; PhD, University of Oregon

Woods, Robert: Lecturer, Department of University English as a Second Language; MA, Macquarie University, Australia

Woody, Susan: Associate Professor, Department of Nutrition Exercise \& Health Science; PhD, University of California-Davis

Wyatt, Marla: Professor, Department of Family \& Consumer Sciences; PhD, Ohio State University-Columbus

Xiao, Hong: Professor, Department of Sociology; PhD, University of Connecticut

Yang, Taiqian: Professor, Department of Industrial \& Engineering Technology; PhD, University of Washington

Yastchenko, Alena: Lecturer, Department of Undergraduate Studies; MS, Central Washington University

Yoon, Bang-Soon: Professor, Department of Political Science; PhD, University HawaiiManoa

Young, Michael: Associate Professor, Department of Finance \& Supply Chain Management; PhD, University of MissouriColumbia

Young, Therese: Assistant Professor, Department of Physical Education, School \& Public Health; MA, Texas Woman's University

Zayac, Ryan: Assistant Professor, Department of Psychology; PhD, Auburn University

Zempel, Gregory: Lecturer, Department of Law \& Justice; JD, University of Puget Sound

Zhong, Ke: Assistant Professor, Department of Accounting; PhD, Southern Illinois University

Ziemann, Rachael: Assistant Coach, Department of Athletics; MS, Central Washington University


In 1977, Central Washington University initiated a program to honor professors who excel in teaching, research/artistic accomplishment, and public service. The honorees' names are placed on a continuing plaque and they receive a monetary bonus during the award year. The honorees to date are:

## 1977

Chester Z. Keller, Professor of Philosophy, PhD, University of Southern California, Distinguished Teaching

## 1978

Curt A. Wiberg, Professor of Biology, MS, University of Oregon, Distinguished Teaching

## 1979

William F. Cutlip, Professor of Mathematics, PhD, Michigan State University,
Distinguished Teaching
Martin R. Kaatz, Professor of Geography, PhD, University of Michigan, Distinguished Public Service

George Macinko, Professor of Geography, PhD, University of Michigan, Distinguished Research

## 1980

Dee R. Eberhart, Professor of Geography, MA, Northwestern University, Distinguished Public Service

Kenneth A. Hammond, Professor of Geography, PhD, University of Michigan, Distinguished Teaching

Stamford D. Smith, Professor of Biology, PhD, University of Idaho, Distinguished Research

## 1981

Robert D. Bentley, Professor of Geology, PhD, Columbia University, Distinguished Research

Marco G. Bicchieri, Professor of Anthropology, PhD, University of Minnesota, Distinguished Teaching

## 1982

Barbara M. Brummett, Associate Professor of Music, MM, Wichita State University, Distinguished Public Service

Patrick R. O'Shaughnessy, Professor of Accounting, MBA, Washington State University, Distinguished Teaching

Robert M. Panerio, Professor of Music, MEd, Central Washington University, Distinguished Research

1983
Terry L. DeVietti, Professor of Psychology, PhD, University of Utah, Distinguished Research

Leo D. Nicholson, Professor of Health, Human Performance and Recreation, MEd, Central Washington University, Distinguished Teaching

Dorothy M. Purser, Associate Professor of Health, Human Performance and Recreation, MEd, University of Idaho, Distinguished Public Service

1984
Donald W. Cummings, Professor of English, PhD, University of Washington, Distinguished Teaching

Leonard C. Duncan, Professor of Chemistry, PhD , University of Washington, Distinguished Research

John F. Moawad, Associate Professor of Music, MEd, Central Washington University, Distinguished Public Service

## 1985

Ronald J. Boles, Professor of Science Education and Biology, PhD, University of Wisconsin, Distinguished Teaching

Allen C. Vautier, Associate Professor of Accounting, JD, University of Washington, Distinguished Public Service

Robert E. Pacha, Professor of Biology, PhD, University of Washington, Distinguished Research

## 1986

Kenneth A. Briggs, Professor of Health Education, EdD, University of Northern Colorado, Distinguished Public Service

William B. Owen, Professor of Mathematics, PhD, Colorado State University, Distinguished Teaching

## 1987

Anthony Canedo, Professor of English, PhD, University of Washington, Distinguished Teaching

Wolfgang W. Franz, Professor of Economics, PhD, Washington State University, Distinguished Public Service

Cynthia S. Krieble, Professor of Art, MFA, Stanford University, Distinguished Artistic Accomplishment

## 1988

Richard S. Mack, Professor of Economics, PhD, Colorado State University, Distinguished Research

## 1989

Laura L. Appleton, Professor of Sociology, PhD, University of California at Santa Barbara, Distinguished Teaching

James E. Brooks, Professor of Geography and Land Studies, PhD, University of Washington, Distinguished Public Service

Roger S. Fouts, Professor of Psychology, PhD, University of Nevada, Reno, Distinguished Research

## 1990

Peter M. Burkholder, Professor of Philosophy, PhD, Tulane University, Distinguished Teaching

Edward P. Klucking, Professor of Biology, PhD, University of California at Berkeley, Distinguished Research

1991
Makiko Doi, Associate Professor of Library Science, MLS, University of Washington, Distinguished Public Service

Thomas J. Kerr, Professor of Political Science, PhD, Syracuse University, Distinguished Teaching

Christian I. Schneider, Professor of German, PhD, University of California at Santa Barbara, Distinguished Research

1992
Elbert E. Bilyeu, Professor of Spanish, PhD, University of Colorado, Distinguished Teaching

Donald J. Cocheba, Professor of Economics, PhD, Washington State University, Distinguished Research

1993
Robert J. Carbaugh, Professor of Economics, PhD , Colorado State University, Distinguished Teaching

Glenn A. Madsen, Professor of Education, EdD, University of Oregon, Distinguished Public Service

1994
William V. Dunning, Professor of Art, MFA, University of Illinois, Distinguished Artistic Accomplishment

Gary W. Heesacker, Professor of Accounting, MBA, University of Washington, CPA, Distinguished Public Service

David G. Lygre, Professor of Chemistry, PhD, University of North Dakota, Distinguished Teaching

1995
Carlos E. Martín, Professor of Spanish, PhD, Northwestern University, Distinguished Teaching

Kent D. Richards, Professor of History, PhD, University of Wisconsin, Distinguished Research

## 1996

A. James Hawkins, Professor of Theatre Arts, MA, Sacramento State College, Distinguished Public Service

John Q. Ressler, Professor of Geography, PhD, University of Oregon, Distinguished Teaching

Carolyn C. Schactler, Professor of Clothing and Textiles, MA, Central Washington University, Distinguished Research / Artistic Accomplishment and Invention

## 1997

James L. Nimnicht, Professor of Business Administration, PhD, University of Nebraska-Lincoln, Distinguished Teaching

Roger H. Yu, Professor of Physics, PhD, Montana State University, Distinguished Research

## 1998

Morris L. Uebelacker, Associate Professor of Geography, PhD, University of Oregon, Distinguished Teaching

Hal J. Ott, Professor of Music, DM, Florida State University, Distinguished Research/ Artistic Accomplishment and Invention

Norman J. Gierlasinski, Professor of Accounting, DB Administration, Nova University, Distinguished Public Service

## 1999

Karen Jane Blair, Professor of History, PhD, State University of New York, Distinguished Research/Artistic Accomplishment and Invention

David Lawrence Gee, Professor of Foods and Nutrition, PhD, University of California at Davis, Distinguished Teaching

Stephen Charles Jefferies, Professor of Health, Human Performance and Recreation, PhD, University of Oregon, Distinguished Public Service

## 2000

Patricia Anne Callaghan, Professor of English, PhD, University of Oregon, Distinguished Public Service

Terry Lynn Martin, Professor of English, PhD, University of Oregon, Distinguished Teaching

## 2001

Ethan Alan Bergman, Professor of Family and Consumer Sciences PhD, University of Colorado, Distinguished Public Service

Robert John Carbaugh, Professor of Economics, PhD, Colorado State University, Distinguished Research

Larry Dee Gookin, Professor of Music, MM, University of Oregon, Distinguished Teaching

## 2002

David Michael Darda, Professor of Biological Sciences, PhD, University of California, Berkeley, Distinguished Teaching

Corwin King, Professor of Communication, PhD, Pennsylvania State University, Distinguished Public Service

Mark Warren Halperin, Professor of English, 2002, MFA, State University of Iowa, Distinguished Artistic Accomplishment/ Invention

## 2003

David Warner Carns, Professor of Industrial and Engineering Technology, MS, Oregon State University, Distinguished Teaching

James G. Pappas, Professor of Education, EdD, Nova Southeastern University, Distinguished Public Service

Alla Ditta Raza Choudry, Associate Professor of Mathematics, PhD, University of Bucharest, Romania, Distinguished Research/Artistic Accomplishment

## 2004

Bruce Christopher Palmquist, Associate Professor of Physics and Science Education, PhD, University of Minnesota, Distinguished Public Service

Lisa Lee Weyandt, Professor of Psychology, PhD, University of Rhode Island, Distinguished Research/Artistic Accomplishment

## 2005

Natalie Lefkowitz, Professor of Spanish and French, PhD, University of Washington, Distinguished Teaching

John Pickett, Professor of Music, DM, Indiana University, Distinguished Artistic Accomplishment

2006
Jan S. Bowers, Professor of Family and Consumer Sciences, PhD, Kansas State University, Distinguished Public Service

Keith A. Lewis, Professor of Art, MFA, Kent State University, Distinguished Research/ Artistic Accomplishment

Vincent M. Nethery, Professor of Health, Human Performance, and Recreation, PhD, University of Oregon, Distinguished Teaching

2007
Jeffrey Dippmann, Professor of Philosophy and Religious Studies, PhD, Northwestern University, Distinguished Public Service

Peter Jason Saunders, Professor of Economics, PhD, University of Colorado, Distinguished Research, / Artistic Accomplishment and Invention

Gerald Joseph Stacy, Professor of English, PhD, Bowling Green State University, Distinguished Teaching

2008
Martha J. Kurtz, Professor of Chemistry and Science Education, PhD, Arizona State University, Distinguished Public Service

Scott M. Lewis, Professor of Mathematics, PhD, Oregon State University, Distinguished Teaching

Chenyang Li, Professor of Philosophy, PhD, University of Connecticut, Distinguished Research/Artistic Accomplishment

## 2009

Matthew Altman, Director of The William O. Douglas Honors College and Assistant Professor of Philosophy and Religious Studies, PhD, University of Chicago, Distinguished Non-Tenure Track Teaching

Roxanne Easley, Professor of History, PhD, University of Oregon, Distinguished Teaching

Robert Holtfreter, Professor of Accounting, PhD, University of Nebraska, Distinguished Public Service

Joseph Powell, Professor of English, MFA, Florida International University, Distinguished Artistic Accomplishment

## 2010

Peter Gries, Professor of Music, DM, University of Oregon, Distinguished Service

Susan Lonborg, Professor of Psychology, PhD, Ohio State University, Distinguished Teaching

Ruth Erdman, Professor of English, MA, Central Washington University, Distinguised Non-Tenure Track Teaching


## Emeritus Faculty as of February 20, 2010

Agars, Janis John (1964): Professor, Department of Art, 2000; BA, University of Washington; MFA, Washington State University

Alawiye, Osman (1989): Professor,
Department of Education, 2005; BA, Dakota Wesleyan University; MA, University of South Dakota; PhD, New Mexico State University

Alexander, James M. (1965): Professor, Department of Anthropology, 2001; AB, University of New Mexico; MS, Clemson University; PhD, University of Washington

Alumbaugh, Richard (1969): Professor, Department of Psychology, 2002; BA, MS, Fort Hays Kansas State College; PhD, Texas Technological College

Amby, Joan M. (1996): Professor, Department of Family and Consumer Sciences, 2006; BA, MA, San Francisco State University; PhD, Oregon State University

Anderson, David R. (1969): Professor, Department of Mathematics, 1999; BA, Bradley University; PhD, Duke University

Andress, Joel M. (1966): Professor, Department of Geography, 1993; AB, University of the Pacific; MS, PhD, University of California at Berkeley

Applegate, Jimmie R. (1970): Professor, Department of Education, 1996; BS, Oregon State University; BS, MS, Eastern Oregon College; PhD, Washington University

Arlt, Walter H. (1968): Professor, Department of Health, Human Performance and Nutrition, 2000; BS, Washington State University; MEd, Central Washington University

Barker, William W. (1966): Professor, Department of Biological Sciences, 1995; BS, Baldwin-Wallace College; MS, University of Michigan; PhD, University of Washington

Basler, David D. (1960): Professor, Department of Education, 1992; BA, State College of Iowa; MA, PhD, State University of Iowa

Beardsley, Eric R. (1959): Professor, Department of Health, Human Performance and Nutrition, 1986; BAEd, Central Washington University; MS, Springfield College

Beath, Linda S. (1992): Professor, Department of Education, 2007; BA, MA, Western Washington University; PhD, University of Oregon

Beed, Galer W. (1973): Professor, Department of Industrial and Engineering Technology, 2001; BS, Oregon State University; MA, San José State College; EdD, University of Arkansas

Bennett, Robert B. (1967): Professor, Department of Physics, 1989; BA, Willamette University; MA, PhD, University of Oregon

Benson, William (1968): Professor, Department of Sociology, 2000; BA, PhD, Washington State University

Bentley, Robert (1969): Professor, Department of Geology, 1997; BS, Oregon State University; PhD, Columbia University

Berg, Walter L. (1955): Professor, Department of History, 1982; BA, University of Puget Sound; MA, PhD, University of Washington

Bilyeu, Elbert E. (1970): Professor, Department of Foreign Language, 1995; BS, Southwest Missouri State College; PhD, University of Colorado

Blanton, Thomas L. (1967): Professor, Department of English, 1996; BA, MA, Washington State University

Bowman, Andrea C. (1989): Professor, Department of Education, 2003; BA, San José State University; MAE, Northern Arizona University; EdD, Arizona State University

Boyungs, Janice C. (1965): Professor, Department of Health, Human Performance and Nutrition, 1998; BS, Western Illinois University; MEd, Central Washington University

Brennan, James F. (1967): Professor, Department of History, 1997; BS, Georgetown University; MA, PhD, University of California at Berkeley

Brooker, George W. (1990): Professor, Department of Business Administration, 2001; BA, MBA, PhD, Northwestern University

Brooks, James E. (1961): Professor, Department of Geography, 1993; BA, Central Washington University; MA, PhD, University of Washington

Brown, Donald G. (1963): Assistant Professor, Department of Education, 1982; BA, MEd, University of Washington

Brown Jr., James R. (1980): Professor, Department of Political Science, 2005; BA, University of North Carolina; MA, University of Nebraska; PhD, University of Kansas

Brown, Robert H. (1967): Professor, Department of Biology, 1997; BSEd, MS, PhD, University of Arizona

Burkholder, Peter M. (1965): Professor, Department of Philosophy, 2008; BA, Harvard University; PhD, Tulane University

Byrd, Ross F. (1969): Professor, Department of Administrative Management and Business Education, 2000; BA, Eastern Washington University; MA, Whitworth College; EdD, Washington State University

Calhoun, David K. (1973): Professor, Department of Industrial and Engineering Technology, 2004; BS, MEd, Oregon State University; EdD, Arizona State University

Canzler, David G. (1966): Associate Professor, Department of English, 1990; BA, Linfield College; MA, PhD, University of Oregon

Caples, Minerva L. (1986): Professor, Department of Education, 2008; BA, MA, University of Texas; EdD, Texas A\&M University

Carne, Eva-Marie (1968): Professor, Department of Foreign Language, 1992; BA, University of Bristol, England; MA, PhD, University of Colorado

Chan-Nui, Ernest (1967): Associate Professor, Department of Education, 1998; BEd, University of Hawaii; MA, EdD, Columbia University

Choudary, Alla Ditta R. (1986): Professor, Department of Mathematics, 2006; BS, Government College Civilline, Pakistan; MS, Punjab University, Pakistan; PhD, University of Bucharest, Romania

Cocheba, Donald J. (1970): Professor, Department of Economics, 2002; BS, Southern Illinois University; MS, Louisiana State University; PhD, Washington State University

Comstock, Dale R. (1964): Professor, Department of Mathematics, 1996; BA, Central Washington University; MS, PhD, Oregon State University

Condit, Colin (1965): Professor, Department of Psychology, 1983; BA, University of Washington; MA, Columbia University; PhD, Washington State University

Craig, William S. (1968): Professor, Department of Instructional Media, Academic Computing, 2001; BAEd, MEd, Central Washington University

Cummings, Donald W. (1960): Professor, Department of English, 1996; BA, MA, PhD, University of Washington

Cunha, Clifford C. (1970): Professor, Department of Music, 1979; BA, San José State College; MAEd, Stanford University

Cutlip, William F. (1968): Professor, Department of Mathematics, 2000; BS, Eastern Illinois University; MA, University of Illinois; PhD, Michigan State University

DeShaw, Byron L. (1967): Professor, Department of Education, 1991; BA, MA, Washington State University; EdD, University of Idaho

Denman, Anne S. (1969): Professor, Department of Anthropology, 2003; BA, Mount Holyoke College; PhD, University of California at Berkeley

Denman, Clayton C. (1964): Professor, Department of Anthropology, 1996; BA, MA, University of Washington; PhD, University of California at Berkeley

Devietti, Terry L. (1968): Professor, Department of Psychology, 2006; BA, MS, PhD, University of Utah

Doi, Makiko (1974): Associate Professor, Library Services, 1993; BA, University of the Pacific; MLS, University of Washington

Donovan, Ann F. (1977): Associate Professor, Library Services, 1990; BAEd, University of Florida; MLS, Florida State University; MA, Central Washington University

Dudley, Stanley A. (1957): Associate Professor, Department of Industrial and Engineering Technology, 1984; BA, MEd, Central Washington University

Duncan, Leonard Clinton (1965): Professor, Department of Chemistry, 1999; AB, Wabash College; MA, Wesleyan University; PhD, University of Washington

Eberhart, Dee Richard (1965): Professor, Department of Geography, 1986; BA, University of Washington; MA, Northwestern University

Edington, Robert V. (1988): Professor, Department of Political Science, 1999; BA, San Francisco State College; MA, PhD, University of Washington

Eickhoff, Henry J. (1950): Professor, Department of Music, 1989; BA, BD, Concordia Seminary; MM, PhD, Northwestern University

Elaine, Sharon (1981): Professor, Department of Health Education, 1998; BS, University of Washington; MPH, PhD, University of Michigan

Emken, Walter C. (1969): Professor, Department of Chemistry, 1999; BS, Fresno State College; PhD, Oregon State University

Envick, Robert M. (1973): Professor, Department of Industrial and Engineering Technology, 1998; BA, MA, Kearney State College; EdD, University of Northern Colorado

Erickson, Barney L. (1969): Professor, Department of Mathematics, 2002; BS, Utah State University; MS, Syracuse University; MS, EdD, Utah State University

Esbeck, Edward S. (1978): Professor, Department of Business Administration, 1999; BS, Drake University; MA, State University of Iowa; PhD, Case Western Reserve University

Eubanks, James L. (1983): Professor, Department of Psychology, 2007; AB, Humboldt State University; PhD, Arizona State University

Fairburn, Wayne A. (1972): Professor, Department of Business Administration, 2005; BS, MA, Eastern Washington University; PhD, Michigan State University

Farkas, Steven E. (1965): Associate Professor, Department of Geology, 1996; BS, MA, University of Wisconsin; PhD, University of New Mexico

Forsyth, Jay D. (1969): Professor, Department of Accounting, 2007; AS, Kansas State College at Fort Hays; MS, Oklahoma State University; CPA

Foster, John P. (1965): Associate Professor, Department of Communication, 1995; BS, MS, Indiana University

Franz, Wolfgang W. (1969): Professor, Department of Economics, 1998; BA, Central Washington University; PhD, Washington State University

Frederick, Gary Carlin (1967): Professor, Department of Health, Human Performance and Nutrition, 1999; BAEd, MEd, Central Washington University; EdD, University of Idaho

Frye, Ronald M. (1966): Professor, Department of Industrial and Engineering Technology, 1993; BA, Central Washington University; MS, Kansas State College of Pittsburgh; EdD, University of Missouri

Gabriel, Lloyd M. (1966): Associate Professor, Department of Education, 1987; BA, Washington State University; MEd, Oregon State University; EdD, Washington State University

Gaines, Robert D. (1961): Professor, Department of Chemistry, 1995; BS, MS, PhD, Montana State College

Galbraith, Gary M. (1971): Professor, Department of Art, 2000; BFA, MFA, California College of Arts and Crafts; MA, Central Washington University

Gamon, Kenneth O. (1965): Professor, Department of Mathematics, 2001; BS, Eastern Washington University; MS, PhD, Oregon State University

Garrett, Roger L. (1968): Associate Professor, Department of Communication, 2000; BA, MA, University of Montana; PhD, Stanford University

Garrison, Philip B. (1967): Professor, Department of English, 2004; BA, MA, University of Missouri

Glauert, Earl (1968): Professor, Department of History, 1994; AB, Earlham College; PhD, University of Pennsylvania

Goss, Gail (1988): Professor, Department of Education, 2006; BA, MA, Central Washington University; PhD, Seattle University

Greatsinger, Calvin G. (1969): Professor, Department of Education, 1994; BA, Jamestown College; MEd, University of North Dakota; EdD, University of Northern Colorado

Green, James G. (1968): Professor, Department of Psychology, 1995; BA, Eastern Michigan University; MA, University of Michigan; EdD, Washington State University

Gregor, John G. (1970): Professor, Department of Health, Human Performance and Nutrition, 1999; BAEd, Western Washington University; MEd, Central Washington University; EdD, University of Oregon

Gregson, Robert J. (1966): Associate Professor, Department of Health, Human Performance and Nutrition, 1998; BS, MEd, Linfield College

Guatney, Charles L. (1976): Associate Professor, Department of Administrative Management and Business Education, 1997; BS, Kansas State College; MA, Rider College

Gunn, Gerald P. (1973): Professor, Department of Business Administration, 2008; BA, MA, Simon Fraser University, Canada; PhD, Colorado State University

Habib, Helmi S. (1964): Professor, Department of Chemistry, 1995; BS, Walla Walla College; MS, University of Idaho; PhD, Washington State University

Halperin, Mark W. (1966): Professor, Department of English, 2002; BA, Bard College; MFA, State University of Iowa

Hammond, Kenneth A. (1962): Professor, Department of Geography, 1997; BA, Eastern Washington University; MS, Oregon State University; PhD, University of Michigan

Hansen, Russell W. (1969): Professor, Department of Sociology and Law and Justice, 1993; BA, University of Nevada; MA, PhD, Washington State University

Harsha, Kenneth K. (1966): Professor, Department of Business Education and Administrative Management, 1991; BSEd, MS, Kansas State Teachers College; EdD, University of Wyoming

Hartman, Ruth D. (1965): Associate Professor, Library Services, 1985; BS, Minot State College; AMLS, University of Michigan

Hasbrouck, Richard W. (1964): Professor, Department of Chemistry 1995; BS, College of Great Falls; MA, Wesleyan University; PhD, University of Wyoming

Hawkins, Arlin J. (1970): Professor, Department of Theatre Arts, 2001; BA, MA, Sacramento State College

Heckart, Beverly (1967): Professor, Department of History, 2003; BA, Hood College; MA, PhD, Washington University

Heimbeck, Raeburne S. (1967): Professor, Department of Philosophy and Religious Studies, 1999; BA, Stanford University; MDiv, Fuller Theological Seminary; PhD, Stanford University

Herum, John M. (1962): Professor, Department of English, 1993; BA, Carroll College

Hileman, Betty J. (1967): Professor,
Department of Health, Human Performance and Nutrition, 1986; BA, Ohio Wesleyan University; MS, University of Wisconsin; PhD , University of Southern California

Hinthorne, James R. (1980): Professor, Department of Geological Sciences, 2001; BA, University of California at Santa Barbara; MS, University of Massachusetts; PhD , University of California at Santa Barbara

Hood, Webster F. (1966): Professor, Department of Philosophy, 2006; BA, MA, PhD, Pennsylvania State University

Hosford, David R. (1969): Professor, Department of Biological Sciences, 2003; BA, Portland State University; PhD, University of Washington

Howard Jr., Alexander H. (1950): Professor, Department of Education, 1984; BAEd, Central Washington University; AM, PhD, University of Chicago

Irving Jr., Robert N. (1965): Associate Professor, Department of Health, Human Performance and Nutrition, 1987; BA, University of Idaho; MS, Indiana University; EdD, University of Oregon

Jacobs, Robert C. (1970): Professor, Department of Political Science, 2002; BA, City College of New York; AM, PhD, Columbia University

Jakubek, Doris E. (1959): Associate Professor, Department of Education, 1988; BEd, State University of New York, Teachers College; MA, State University of Iowa

Jaques, Jennifer (1967): Professor, Library Services, 2007; BA, Central Washington University; ML, University of Washington

Jenkins, Andrew P. (1992): Professor, Department of Health, Human Performance and Nutrition, 2008; BS, MS, Central Washington University; PhD, Pennsylvania State University

Johns, Deloris M. (1964): Associate Professor, Department of Health, Human Performance and Nutrition, 1999; BS, MS, Montana State University

Johnson, Carl B. (1982): Associate Professor, Department of Business Administration, 1994; BS, ME, University of North Dakota; MBA, Santa Clara University

Johnson, Sheldon R. (1966): Professor, Department of Biological Sciences, 2004; BA, Occidental College; MA, University of California at Los Angeles; PhD, Oregon State University

Jones, Jane (1972): Professor, Department of Music, 1985; BAEd, MEd, Central Washington University

Jones, Robert E. (1968): Professor, Library Services, 1992; BA, Western State College, Colorado; MALS, University of Denver; MEd, Central Washington University

Jurenka, Nancy E. (1989): Professor, Department of Education, 2007; BA, Wilson College; MS, Western Connecticut State; EdD, Indiana University

Kaatz, Martin R. (1952): Professor, Department of Geography, 1982; AB, AM, PhD, University of Michigan

Kaufman, David E. (1971): Professor, Department of Sociology, 2003; AB, AM, Northwestern University; PhD, University of California at Los Angeles

Keller, Chester Z. (1960): Professor, Department of Philosophy, 1995; AB, Bridgewater College; MA, PhD, University of Southern California

Kerr, Thomas J. (1970): Professor, Department of Political Science, 1996; BA, University of Washington; AM, George Washington University; PhD, Syracuse University

Killorn, Erlice (1963): Professor, Department of Health, Human Performance and Nutrition, 1999; BS, Montana State College; MS, University of Nevada; PhD, University of Arizona

King, Donald R. (1968): Associate Professor, Department of English, 1993; BA, MA, University of Colorado; PhD, University of New Mexico

King, Corwin P. (1976): Professor, Department of Communication, 2009; BA, Washington State University; MA, PhD, Pennsylvania State University

Klemin, Vernon W. (1979): Professor, Department of Information Technology and Administrative Management, 2007; BBA, Evangel College at Springfield; MEd, University of Missouri; EdD, Utah State University

Klucking, Edward P. (1960): Professor, Department of Biological Sciences, 1994; BA, Macalester College; MA, PhD, University of California at Berkeley

Klug, Linda M. (1970): Professor, Department of Anthropology, 2001; BA, University of California at Santa Barbara; MA, San Francisco State College; PhD, University of Pittsburgh

Knight, Kelton W. (1983): Professor of Foreign Language, 2008; BA, Weber State College; MA, PhD, University of Utah

Kollmeyer, Louis A. (1958): Professor, Department of Art, 1982; BS, Southwest Missouri State College; MA, State University of Iowa; EdD, University of Oregon

Kramar, Zoltan (1963): Professor, Department of History, 1996; BA, MA, Creighton University; PhD, University of Nebraska

Krieble, Cynthia (1973): Professor, Department of Art, 2001; BA, Middlebury College; BFA, San Francisco Art Institute; MFA, Stanford University

Lacey, Patricia J. (1970): Assistant Professor, Department of Health, Human Performance and Nutrition, 1986; BAEd, MEd, Central Washington University

Lacey, William F. (1972): Associate Professor, Department of Education, 1986; BAEd, Central Washington University; MEd, EdD, University of Oregon

Lalley, Madalon C. (1990): Professor, Department of Education, 2002; BA, Central Washington University; MA, Arizona State University; EdD, University of Oklahoma

Lapen, Robert F. (1973): Professor, Department of Biology, 1998; BS, Wagner College; MS, University of Idaho; PhD, Washington State University

Lawrence, Larry L. (1963): Professor, Department of English, 1988; BA, Montana State University; MA, PhD, Stanford University

Lefevre, Dale (1975): Professor, Department of Education, 1996; BS, Southern Utah State College; MEd, EdD, Utah State University

Leinaweaver, Richard E. (1965): Professor, Department of Theatre Arts, 1992; BA, MA, University of Colorado; PhD, Michigan State University

Lester, Margaret N. (1970): Professor, Department of Foreign Language, 1993; BA, Middlebury College; MA, PhD, University of Colorado

Lister, Frederick M. (1968): Professor, Department of Mathematics, 1988; BS, Tufts College; MA, University of Michigan; PhD, University of Utah

Lloyd, Margaret Estelle (1985): Professor, Department of Psychology, 1996; BS, Black Hills State College; MS, PhD, Washington State University

Lowther, Lawrence L. (1965): Professor, Department of History, 1992; BA, MA, PhD,
University of Washington
Lygre, David G. (1970): Professor, Department of Chemistry, 2008; BA, Concordia College; PhD, University of North Dakota

Macinko, George (1967): Professor, Department of Environmental Studies and Geography, 1996; BA, University of Idaho; MA, PhD, University of Michigan

Mack, Richard S. (1972): Professor, Department of Economics, 2008; BA, Dartmouth; PhD, Colorado State University

Madley, Susan M. (1990): Professor, Department of Education, 2001; BS, MA, London University, England; PhD, University of Michigan

Madsen, Glenn A. (1971): Professor, Department of Education, 1995; BS, Northern Montana College; MA, San Francisco State College; EdD, University of Oregon

Martin, Bernard L. (1959): Professor, Department of Mathematics and Computer Science, 1993; BA, MEd, Central Washington University; MS, PhD, Oregon State University

Martin, Carlos E. (1969): Professor, Department of Foreign Language, 2000; AB, Pontifical University, Spain; MA, Loyola University; PhD, Northwestern University

Martinen, Dennis L. (1972): Professor, Department of Education, 2008; BA, MEd, Central Washington University; EdD, Montana State University

Marx, Victor (1965): Professor, Library Services, 2001; College of Horticulture and Viticulture, Hugary; BSA, MSA, University of British Columbia; ML, University of Washington

McGehee, Charles L. (1969): Professor, Department of Sociology, 1999; BA, Baylor University; MA, University of Oregon; PhD, University of Nevada

McInelly, Wells A. (1966): Associate Professor, Department of Psychology, 1993; BA, Utah State University; MA, PhD, University of Wyoming

McLaughlin, Patrick L. (1984): Professor, Library Services, 2006; BA, MA, University of Montana; MLS, University of Oregon; PhD, Oklahoma State University

Miller, Robert S. (1966): Professor, Department of Psychology, 1984; BSEd, Kansas State Teachers College; MEd, EdD, University of Kansas

Mitchell, Robert C. (1966): Professor, Department of Physics, 1993; BS, New Mexico State University; MS, University of Washington; PhD, New Mexico University

Moore, John O. (1980): Professor, Department of Accounting, 2002; BBA, Texas State University; MBA, Sam Houston State University; PhD, University of Houston; CPA, CMA

Mueller, Leslie C. (1979): Professor, Department of Business Administration, 2001; BS, University of Kansas; MBA, University of California at Los Angeles; DBA, University of Southern California

Myers, Robert L. (1971): Associate Professor, Department of Education, 1991; BAEd, Western Washington University; MEd, Central Washington University; DEd, University of Oregon

Neal, Lloyd G. (1984): Associate Professor, Department of Communication, 1997; BS, Northwestern University; MA, University of Arizona

Nelson, Frank B. (1966): Associate Professor, Department of Psychology, 1988; BA, Brigham Young University; MS, PhD, University of Utah

Nesselroad, Sidney L. (1978): Professor, Department of Music, 2002; BM, West Virginia University; MM, DMA, University of Illinois

Nicholson, Leo D. (1964): Professor, Department of Health, Human Performance and Nutrition, 1990; BA, MEd, Central Washington University

Norris, Melvin L. (1965): Professor, Department of Education, 1990; BS, MEd, Midwestern University; EdD, North Texas State University

Olson, Virgil J. (1960): Professor, Department of Sociology, 1992; BA, MA, Southern Methodist University; PhD, Washington State University

O'Shaughnessy, Patrick R. (1964): Professor, Department of Accounting, 1999; BA, MBA, Washington State University; CPA

Otto, Dale E. (1971): Professor, Department of Early Childhood Education and TESL/ Bilingual Studies, 1998; BS, Idaho State University; MA, PhD, University of California at Los Angeles

Owen, William B. (1969): Professor, Department of Mathematics, 2001; BS, MS, PhD, Colorado State University

Pacha, Robert E. (1969): Professor, Department of Biology, 1997; BS, MS, PhD, University of Washington

Panerio, Robert M. (1963): Professor, Department of Music, 1991; BA, MEd, Central Washington University

Papadopoulos, C. J. K. (1966): Associate Professor, Department of Art, 2001; BFA, Michigan State University; MFA, Cranbrook Academy of Art

Parry, Thomas J. (1966): Assistant Professor, Department of Health, Human Performance and Nutrition, 1986; BS, MA, Washington State University

Patton, Charles D. (1973): Professor, Department of Industrial and Engineering Technology, 1987; BS, Colorado State University; MEd, Montana State University; EdD, University of Illinois at ChampaignUrbana

Pearson, John M. (1964): Professor, Department of Physical Education, 1998; FS, University of Idaho; MA (Ed), Idaho State University; EdD, University of Oregon

Phillips, Barbara A. (1994): Associate Professor, Department of Education, 2006; BS, Northern Illinois University; MA, Western State College of Colorado; PhD, University of Denver

Potter, Mary J. (1981): Associate Professor, Department of Education, 1994; BA, MEd, Central Washington University; EdD, Washington State University

Powell, Willa D. (1975): Associate Professor, Department of Family and Consumer Science, 1996; BS, University of Arkansas, MEd, Central Washington University; PhD, Oklahoma State University

Putnam, Betty J. (1967): Professor, Department of Health, Human Performance and Nutrition, 1992; BSEd, Illinois State Normal University; MS, Smith College; PhD, University of Southern California

Ressler, John Q. (1969): Professor, Department of Geography, 1997; BA, University of California at Riverside; MA, University of Arizona; PhD, University of Oregon

Reynolds, Roger R. (1968): Assistant Professor, Department of Communication, 1999; BS, Oregon State University; MA, University of Hawaii

Richards, Kent D. (1966): Professor, Department of History, 1997; BA, Knox College; MS, PhD, University of Wisconsin

Ringe, Louis D. (1968): Professor, Department of Geology, 1993; BS, MS, University of Idaho; PhD, Washington State University

Roberts, Connie M. (1976): Professor, Department of Information Technology and Administrative Management, 2008; BBA, Evangel College; MEd, Central Washington University, EdD, Utah State University

Roberts, Neil A. (1970): Associate Professor, Department of Education, 1997; BA, University of California at Santa Barbara; MA, California State College at Los Angeles; EdD, Colorado State College

Rogers, Helen E. (1970): Associate Professor, Department of Education, 1986; BA, University of Idaho; MA, University of Chicago; EdD, Indiana University

Roth, Eric S. (1979): Professor, Department of Music, 2001; BS, MM, DMA, CollegeConservatory of Music, Ohio ,

Rust, Samuel P. (1969): Professor, Department of Education, 1992; BA, BAEd, Western Washington University; MEd, Central Washington University; EdD, University of Oregon

Sahlstrand, James M. (1963): Professor, Department of Art, 1999; BA, MFA, University of Minnesota

Sahlstrand, Margaret A. (1965): Professor, Department of Art, 1996; BA, Lindenwood College; MFA, State University of Iowa

Schactler, Carolyn C. (1976): Professor, Department of Family and Consumer Sciences, 2000; BA, MA, Central Washington University

Schliesman, Donald M. (1957): Professor, Department of Education, 1996; AB, Northern State Teachers College; AM, EdD, University of Northern Colorado

Schmidt, William D. (1963): Professor, Department of Education, 1999; BS, University of Nebraska; MA, San Diego State College; PhD, Ohio State University

Schneider, Christian I. (1968): Professor, Department of Foreign Languages, 2002; BA, University of Tubingen, Germany; MA, Central Washington University; MA, PhD, University of California, Santa Barbara

Schomer, Joe H. (1971): Professor, Department of Education, 1999; BA, Washington State University; MEd, Central Washington University; EdD, University of Idaho

Scott, Howard G. (1967): Professor, Department of Psychology, 1983; BA, MEd, Western Washington University; EdD, University of Washington

Sessions, Frank Q. (1967): Professor, Department of Sociology, 1989; BS, Idaho State College; MS, University of Idaho; PhD, University of Utah

Sharpe, Lana J. (1967): Associate Professor, Department of Health, Human Performance and Nutrition, 2002; BS, University of Utah; MA, Central Washington University

Silva, John L. (1962): Professor, Department of Psychology; BA, MA, San José State College; PhD, Washington State University

Smith, Bonalyn B. (1973): Professor, Department of Music, 1999; BA, University of Rochester; MA, Columbia University; DM, University of Cincinnati

Smith, Gary L. (1968): Associate Professor, Department of Health, Human Performance and Nutrition, 2000; BS, Northern Michigan University; MS, Indiana University

Smith, Milo L. (1956): Professor, Department of Theatre Arts, 1990; BAEd, Northern Idaho College of Education; MA, PhD, University of Oregon

Smith, Stamford D. (1968): Professor, Department of Biology, 2001; BA, San José State College; MS, PhD, University of Idaho

Smith, William C. (1968): Professor, Department of Anthropology, 1998; AB, PhD , University of California at Berkeley

Spall, Hugh M. (1989): Professor, Department of Business Administration, 2007; BA, University of Montana; MA, PhD, Michigan State University; JD, University of Miami

Sparks, Larry M. (1967): Associate Professor, Department of Psychology, 1999; BS, PhD, University of Washington

Sperry, Willard C. (1966): Professor, Department of Physics, 1997; BS, Stanford University; MS, PhD, University of California at Davis

Speth, Constance (1964): Professor, Department of Art, 1995; BA, MEd, Central Washington University; MFA, University of Idaho

Stacy, Gerald Joseph (1990): Professor, Department of English, 2009; BA, St. Procopius College; MA, Purdue University; PhD, Bowling Green State University

Street, Warren R. (1967): Professor, Department of Psychology, 2008; BA, Occidental College; MA, PhD, Claremont Graduate School

Sutherland, Harry S. (1968): Professor, Department of Education, 1983; BS, MEd, Lewis and Clark College; EdD, University of Portland

Taylor, Azella (1964): Professor, Department of Education, 1983; BA, MEd, EdD, University of Washington

Teets, Bruce E. (1968): Professor, Department of English, 1981; BA, Fairmont State College; MA, West Virginia University; PhD, Duke University

Thelen, Thomas H. (1970): Professor, Department of Biology, 1999; BS, St. Johns University; PhD, University of Minnesota

Tobin, Louise A. (1959): Associate Professor, Department of Family and Consumer Sciences, 1980; BS, University of Washington; MS, Oregon State University

Tolin, Philip (1967): Professor, Department of Psychology, 2006; BS, University of Massachusetts; MA, PhD, University of Iowa

Tolman, Rosco N. (1970): Professor, Department of Foreign Language, 2006; BS, Utah State University; MA, University of Iowa; PhD, University of Utah

Toomey, Ned (1967): Associate Professor, Department of English, 1987; BBA, American University of Beirut; BJ, University of Missouri; MA, West Texas State University; PhD, University of Iowa

Town, George G. (1972): Professor, Department of Computer Science, 1996; BS, MS, University of Wisconsin

Unruh, Dan A. (1965): Professor, Department of Education, 1991; BS, Oregon College of Education; MEd, University of Oregon; EdD, Columbia University

Van Tassel, Wesley H. (1991): Professor, Department of Theatre Arts, 2006; BS, Moorhead State College; MA, University of North Carolina; PhD, University of Denver

Vance, William C. (1981): Professor,
Department of Health, Human Performance and Nutrition, 2007; BA, MS, California State University at Long Beach; EdD, University of Oregon

Vautier, Allen C. (1975): Professor,
Department of Accounting, 2006; BA, JD, University of Washington

Vifian, John L. (1961): Professor, Department of English, 1998; BA, Whitworth College; MA, Washington State University; PhD, University of Colorado

White, Donald H. (1981): Professor, Department of Music, 1990: BS, Temple University; MM, PhD, University of Rochester

Wiberg, Curt A. (1956): Professor, Department of Biology, 1991; BS University of
Wisconsin; MS, University of Oregon
Wieking, Robert H. (1981): Professor, Department of Industrial and Engineering Technology, 2003; BA, MA, San José State University; PhD, Washington State University

Willberg, Calvin G. (1969): Professor, Department of Computer Science and Geography, 1993; BS, MS, Ohio State University; PhD, University of Washington

Wilson, Blaine R. (1975): Professor, Department of Administrative Management and Business Education, 1999; BS,
Brigham Young University; MS, Utah State University; EdD, University of Minnesota

Wolford, Norman H. (1983): Professor, Department of Industrial and Engineering Technology, 1996; BA, MS, North Carolina State University

Yee, Robert (1960): Professor, Department of Political Science, 1982; BA, MA, PhD, University of Washington

Yeh, Thomas Y. (1965): Professor, Library Services, 2004; FA, Soochow University, Taiwan; MA, MALS, University of Minnesota

Young, Madge A. (1968): Professor, Department of Education, 1982; BS University of Nebraska; MA, San José State College, California; EdD, University of the Pacific

Young, Timothy W. (1980): Professor, Department of Education, 2002; AB, University of Michigan; MA, Antioch University; PhD, Indiana University

Yoxtheimer, Tim L. (1981): Professor, Department of Industrial and Engineering Technology, 2007; BA, MS, Ohio University


## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

Notice to Students of Privacy Rights

The Family Educational Rights and Privacy Act (FERPA) of 1974 is a federal law that states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students must be made available. The law provides that the institution will maintain the confidentiality of student education records.

Central Washington University (CWU) accords all the rights under this law to students who are declared independent. No one outside of the institution shall be
permitted access to-nor will the institution disclose any information from-a student's educational records without his or her written consent. FERPA permits information to be released from education records without written consent of the student to the following officials and agencies:

- Officials of other institutions to which students are applying to enroll
- Persons or organizations providing financial aid
- Individuals and organizations charged with oversight of the university, or of federal or state programs in which the university participates, accrediting agencies
- Parents of any student under the age of 21, regardless of the student's dependency status in cases where the student has violated laws or university rules governing alcohol or controlled substances
- Persons as directed by a judicial order or lawfully issued subpoena, provided the university makes a reasonable attempt to notify the student in advance of compliance (unless directed by judicial authorities not to disclose the existence of an order or subpoena)
- Persons in an emergency to protect the health or safety of students or other persons
- The Immigration and Naturalization Service under the terms and provisions of immigration law
With the exception of alcohol and drug violations, CWU does not release information from student education records to parents without the written consent of students.

FERPA permits the university to release information concerning violent crimes and non-forcible sex offenses (statutory rape or incest) committed by its students. Victims of an alleged violent crime or non-forcible sex

offense may be informed of the final results of university disciplinary hearings concerning the allegation. When a student is an alleged perpetrator of a violent crime or a non-forcible sex offense and the university concludes with respect to that allegation that the student has violated university rules, the university may release to the public the name of the student, the offense committed, and the sanction the university imposes against the student.

FERPA further allows student education records to be released to individuals or organizations performing research on behalf of, or in cooperation with, the university. When education records are released for research purposes, FERPA requires the university and its research partners to implement procedures to safeguard their confidentiality. In addition, records released for research must be returned or destroyed when the research is completed, and research findings may not be presented in a manner that makes it possible to identify confidential data from an individual's education record. Central Washington University releases information from student education records to outside researchers only under the conditions specified by FERPA and only to those that agree in writing to safeguard the confidential information contained therein.

Within the CWU community, only those members (individually or collectively) acting in the student's educational interest(s) are allowed access to student educational records. These members include personnel in offices defined by the institution, e.g., offices of Admissions, Advising, Career Services, Financial Aid, Housing and New Student Programs, and Registrar Services, along with specific academic personnel within their need-to-know limitations.

At its discretion, the institution may provide directory information in accordance with the FERPA provisions including: student name, university and permanent home address and telephone number, a photograph, dates of attendance, class, major fields of study, previous institutions attended, awards and honors (including honor roll), degrees conferred (including dates), participation in officially recognized sports and activities, and heights and weights of members of athletic teams. Students may stipulate the withholding of their directory information by selecting the check box on the FERPA privacy page located on Safari (the university's student information system). To navigate to the FERPA page you may use the following navigation path: Self Service > Campus Personal Information > Privacy Settings > FERPA/Directory Restrictions. If you do not have an active Safari account or do not have access to a computer, you may withhold directory information by notifying Registrar Services, CWU, 400 E. University Way, Ellensburg, WA 98926-7465. Notification must be made in writing anytime during the academic year. The university will honor
requests until the student notifies the Office of Registrar Services to change it.

The law provides students with the right to inspect and review information contained in their educational records, to challenge the content and accuracy of those records, to have a hearing if the outcome of the challenge is unsatisfactory and, if they believe the decisions of the hearing panel are unacceptable, to submit explanatory statements for inclusion in their files. The university's vice president for Student Affairs and Enrollment Management has been designated by the institution to coordinate inspection and review procedures for student educational records, which include admission, personal, academic and placement records. Students wishing to review their educational records must make written requests to the Office of the Vice President for Student Affairs and Enrollment Management listing the item or items of interest. Only records covered by FERPA will be made available within 45 days of the request. Students may have copies made of their records with certain exceptions (e.g., a copy of the academic record for which a financial hold exists or a transcript of an original or source document which exists elsewhere). These copies can be made at the student's expense, at the prevailing rates listed by the Office of Registrar Services.

Educational records do not include records of instructional, administrative, and educational personnel, which are the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute, with the exception of records created by the university police for the purpose of law enforcement. Student health records that are created and used solely in connection with the provision of health care may be reviewed by physicians of the student's choosing, employment records that relate exclusively to individuals in their capacities as employees, and alumni or other post-attendance records. FERPA regulations apply only to records held for institutional use concerning students who enroll at the university; they do not govern records of applicants who are denied admission or who choose not to attend the university. Nor do they govern records kept by a university official that are the sole possession of the maker and are not normally revealed to anyone else except a temporary substitute (e.g., temporary reminder notes).

Students may not inspect or review the following as outlined by FREPA: financial information submitted by their parents, confidential letters and recommendations associated with admission, employment or job placement, honors to which they have waived their rights of inspection and review, or education records containing information about more than one student, in which case the institution will permit access only to the part of the record which pertains to the inquiring student. The
university is not required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purpose for which they were collected.

Students who believe that their education records contain information that is inaccurate or misleading, or are otherwise in violation of their privacy or other rights, may discuss their problems informally with the vice president for Student Affairs and Enrollment Management (or the vice president's designee). If the decisions are in agreement with the student's requests, the appropriate records will be amended. If not, the student will be notified within a reasonable period of time that the records will not be amended and they will then be informed by the vice president for Student Affairs and Enrollment Management (or the vice president's designee) of their right to a formal hearing. Student requests for a formal hearing must be made in writing to the Office of the Vice President for Student Affairs and Enrollment Management, which, within a reasonable period of time after receiving such requests, will inform the student of the date, place, and time of the hearing. Students may present evidence relevant to the issues raised and may be assisted or represented at the hearings by one or more persons of their choice, including attorneys, at the student's expense. The vice president for Student Affairs and Enrollment Management will appoint the panel, which will adjudicate such challenges.

The decision of the hearing panel will be final. It will be based solely on the evidence presented at the hearing and will consist of written statements summarizing the evidence and state the reasons for the decision, and will be delivered to all parties concerned. The educational records will be corrected or amended in accordance with the decision of the hearing panel, if the decision is in favor of the student. If the decision is unsatisfactory to the student, the student may place within his or her educational records comments on the information in the records, or statements setting forth any reasons for disagreement with the decision(s) of the hearing panel. The statement will be placed in the educational records and maintained as part of the student's records. It will be released whenever the records in questions are disclosed.

A student who believes the adjudications of his or her challenge was unfair, or not in keeping with FERPA provisions, may request in writing assistance from the university's president (or designee). Students who believe their FERPA rights have been violated may also file complaints with the Family Policy Compliance Office, U S Department of Education, 400 Maryland Avenue S.W., Washington, DC 20202-4605 (www.ed.gov/offices/OM/fpco).

These policies and procedures are regularly updated. Please check the online CWU catalog for the most recent version of these appendices.

## APPENDIX A

## Equal Opportunity and Affirmative Action

## I. Equal Opportunity for Employees

Central Washington University is an equal opportunity employer that values an inclusive campus and welcomes a diversity of ideas and people. In keeping with its commitment to employee equity, the university recruits, hires, trains, and promotes persons in all job titles, without regard to race, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, or status as a protected veteran.

The university ensures that all personnel actions such as compensation, benefits, transfers, terminations, layoffs, return from layoffs, university-sponsored training, education, tuition assistance, and social and recreation programs, will be administered without regard to race, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, or status as a protected veteran.

## II. Affirmative Action

Central Washington University is committed to affirmative action for Asians/ Pacific Islanders, Blacks, Hispanics, Native Americans/Alaskan Natives, women, persons 40 years of age or older, persons of disability, and protected veterans. This commitment is expressed through the university's efforts to eliminate barriers to equal employment opportunity and improve employment opportunities encountered by these affected groups.

## III. Equal Opportunity for Students

Central Washington University will provide students equal access to all programs

and services on the basis of merit without regard to race, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, or status as a protected veteran.

No person will be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity sponsored by the university, including, but not limited to, admissions, academic programs, student employment, counseling and guidance services, financial aid, recreational activities, and intercollegiate athletics.

No member of the university community shall treat students differently because of their race, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability (except to provide reasonable accommodation), or status as a protected veteran. The university has established mechanisms to address complaints of discriminatory treatment, including harassing behaviors (e.g., physical, verbal, graphic, or written) which might lead to the creation of a hostile environment.

## IV. Gender Equity in Higher Education

Washington State law prohibits discrimination on the basis of gender in institutions of higher education. Provisions of this law can be found in RCW 28B.110. Rules and guidelines have been developed to eliminate possible gender discrimination to students, including sexual harassment. These rules address academic programs, student employment, counseling and guidance services, financial aid, and recreational activities including club sports and intercollegiate athletics.

With respect to higher education student employment, all institutions shall be required to: a) make no differentiation in pay scales on the basis of gender; b) assign duties without regard to gender except where there is a bonafide occupational qualification as approved by the Washington Human Rights Commission; c) provide the same opportunities for advancement to males and females; and d) make no difference in the conditions of employment on the basis of gender in areas including, but not limited to, hiring practices, leaves of absence, and hours of employment.

Admission to academic programs shall be made without regard to gender. Counseling and guidance services for students shall be made available to all students without regard to gender. All academic and counseling personnel shall be required to stress access to all career and vocational opportunities to students without regard to gender. All academic programs shall be available to students without regard to gender.

Recreational activities shall be offered to meet the interests of students, with no disparities based on gender. Financial aid shall be equitably awarded by type of aid, also with no disparities based on gender.

With respect to intercollegiate athletics, institutions that provide the following shall do so with no disparities based on gender: a) benefits and services (e.g., equipment and supplies; medical services; services and insurance; transportation and per diem allowances; opportunities to receive coaching and instruction; scholarships and other forms of financial aid; opportunities for competition; publicity and awards, and scheduling of games and practice times); b) opportunities to participate in intercollegiate athletics; c) male and female coaches and administrators. (Institutions shall attempt to provide some coaches and administrators of each gender to act as role models for male and female athletes.)

Each institution shall develop and distribute policies and procedures for handling complaints of sexual harassment.

The executive director of the Higher Education Coordinating Board, in consultation with the Council of Presidents, shall monitor the compliance by institutions of higher education with this chapter. A violation of this chapter shall constitute an unfair practice under chapter 49.60 RCW, including the right to file a complaint with the Human Rights Commission and to bring a civil action, shall apply. This chapter shall supplement, and shall not supersede, existing law and procedures relating to unlawful discrimination based on gender. Institutions of higher education shall distribute copies of the provisions of this chapter to all students. If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

The person responsible for coordinating and monitoring compliance with the provisions of this chapter as well as Title IX, is Staci Sleigh-Layman, Office for Equal Opportunity, Barge Hall, room 211, Central Washington University, 509-962-2205. Students with gender discrimination complaints are encouraged to utilize the grievance procedures noted below.

## V. Sexual Harassment Policy

It is the policy of Central Washington University to maintain a work and academic community which is free from sexual harassment. Sexual harassment violates state and federal law and will not be tolerated by this institution. An individual in violation of this policy will be subject to informal or formal disciplinary action up to and including dismissal from employment.

For the purposes of this policy, sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:
A. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or career advancement.
B. Submission to or rejection of such conduct by an individual is used as a basis for an employment decision or an academic decision affecting such individual; or
C. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or creating an intimidating, hostile, or offensive work or academic environment.
Based on the definition provided above, examples of sexual harassment prohibited by this policy include, but are not limited to: physical assault, direct propositions of a sexual nature, or subtle pressure for sexual activity. In addition, behaviors which constitute a pattern of conduct that discomforts or humiliates the recipient are prohibited. Such behaviors may include: comments of a sexual nature, sexually explicit statements, questions, jokes, or anecdotes, unnecessary touching, patting, hugging, or kissing, remarks of a sexual nature about a person's clothing or body, or remarks about sexual activity or speculations about previous sexual experience, and persistent, unwanted attempts to change a professional relationship to an amorous one.

All members of the university community are encouraged to work toward maintaining an educational and work environment free from sexual harassment.

To this end,
A. The director of the Office for Equal Opportunity will provide training programs to educate the university community on the subject of sexual harassment and the university's obligation to prevent its occurrence. In addition, the director will ensure that the sexual harassment policy is appropriately displayed on campus and included in the university's policy manual.
B. Persons who believe they are experiencing sexual harassment are encouraged to act promptly and report such concerns to their immediate supervisor, administrator or department chair, or the director of the Office for Equal Opportunity (Barge Hall, room 211, 509-963-2205) or the vice president for Student Affairs (Bouillon Hall, room 204, 509-963-1515). (Concerns which involve sexually harassing behaviors of university employees may be brought to the director of the Office for Equal Opportunity. Concerns which involve student-to-student sexual
harassment may be brought to the attention of the vice president for Student Affairs and Enrollment Management.) The university encourages resolution of sexual harassment complaints at the lowest possible level. Persons who have been sexually assaulted are also encouraged to contact Campus Police (Campus Safety Building, 509-963-2958).
C. Supervisors, administrators, and department chairs who receive informal sexual harassment complaints will act on them in a timely fashion in an attempt to resolve such situations informally. They may wish to obtain guidance from the Office for Equal Opportunity. If matters cannot be resolved informally, formal grievance procedures are available.
D. Formal grievance procedures are available. No individual shall be penalized or retaliated against in any way by the university community for his or her participation in the grievance process.

1. Formal complaints alleging sexual harassment by a university employee or other agent of the university may be filed in the Office for Equal Opportunity. The university's equal opportunity grievance procedures will be utilized to resolve the complaint. Copies of these procedures are available upon request or at www.cwu.edu / ~oeo.
2. Formal complaints alleging student peer sexual harassment may be made to the vice president for Student Affairs.
3. Complaints may also be filed with outside government agencies. A list of these agencies and their addresses is available in the Office for Equal Opportunity.

## VI. Equal Opportunity Grievance Procedures

The university provides procedures for the investigation and resolution of complaints of discrimination and allegations of violations of the university's nondiscrimination policies. Grievance procedures are available to members of the university community (faculty, administrators, staff, and students), applicants for employment or admission, and members of the public who believe they have been discriminated against by the university or members of the university community. Complaints against the university or its employees should be made to the Office for Equal Opportunity, Barge Hall, room 211, CWU 509-963-2205, TDD: 509-963-2207. Complaints against students should be made to the Office of the Vice President for Student Affairs and Enrollment Management, Bouillon Hall, room 204, 509-963-1515. Copies of these procedures are available at www.cwu. edu/ ~oeo/ complaint_procedures.html.

## APPENDIX B

## Central Washington <br> University Student Rights and <br> Responsibilities Policy <br> Section One

## Statement of Rights and Responsibilities

## I. Preamble

Central Washington University is a community that exists for the generation, acquisition, diffusion, and preservation of knowledge, the growth of all its members, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. All members of the university community are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth in an atmosphere of academic freedom. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom as well as elsewhere on campus. The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the university community. The university has developed policies and procedures which provide and safeguard this freedom, within the framework of general standards, and with the broadest possible participation of the members of the university community. This document articulates the general policies that provide for the academic freedom of students in this university community and forms the basis on which more specific policies such as the Student Judicial Code, rules on students records, etc., have been formulated and adopted.

## II. Access to Central Washington University

A. Admissions, Retention, and Graduation Central Washington University supports equal educational opportunity for all regardless of sex, race, color, creed, national origin, age, sexual orientation, marital status, handicap, religion, disability, or status as a disabled or Vietnam-era veteran. Persons seeking admission to the university have the right to be admitted if they meet the admission standards established for the university by the board of trustees of Central Washington University. Admission to the university does not automatically admit students to those programs which have special standards for admission or which may restrict admissions on the basis of available resources. To be eligible for
continued enrollment in the university and for graduation from the university, students are responsible for meeting the university's published requirements for retention and graduation.

## B. University Facilities and Services

All regular students have the right to make full use of the facilities and services of the university which are generally available to students. There are, however, some limitations on the availability and use of university resources. Students are expected to use university facilities and services responsibly and with consideration for other members of the university community. Offices responsible for providing facilities and services will, upon request, furnish guidelines for their use.

## III. Student, Faculty, Staff Relationship

The relationship between students and faculty/staff is one which is based upon mutual respect. Students see faculty and staff in a variety of roles: teachers, counselors, librarians, administrators, advisors, employers, supervisors, colleagues. In those rare instances where a student may wish to pursue a grievance having to do with grades or actions taken by a faculty member or a staff member of an office or department which adversely affected the student's academic progress, the university provides a procedure by which the grievance may be pursued. The rules for the process are contained in the Rules Governing the Operations of the Board of Academic Appeals, copies of which are available in the Office of the Vice President for Student Affairs.

## A. In the Classroom

1. Student Rights

A student who enrolls in a course has the following rights:
a. To know from the instructor the goals and content of the course
b. To know from the beginning the instructor's expectations and grading methods
c. To be evaluated on the materials of the course and not on extraneous matters
d. To consult with the instructor outside the classroom on matters related to the course
2. Student Responsibilities

A student who enrolls in a course has responsibility to observe the standards of academic performance defined by the instructor and the standards of conduct established by the instructor so as to assure the freedom of the instructor to teach and the freedom of the other students to learn.

## B. Outside the Classroom

Students have a right to the services provided by faculty and staff, including such services as academic advising, counseling over a broad range of problem areas, dissemination of information, and clarification of university policies and procedures, including those involving grievances. Because of the size and complexity of the university, students have the primary responsibility for initiating requests for such services, although faculty and staff are expected to be sensitive to student's needs and to offer assistance if students appear to need it.

## IV. Student Records

## A. Student Records Rules

The university has adopted rules which govern the form and variety of student records collected and maintained by the university, the nature of information collected, and the way in which student information is recorded, maintained, and eventually disposed of, consistent with federal and state regulations. Copies of the rules (in accordance with Public Law 93-380 the Family Educational Rights and Privacy Act of 1974, i.e., the Buckley Amendment) are available in the Office of the Vice President for Student Affairs and Enrollment Management. Students have a right to expect that information about themselves of a private, personal, or confidential nature which they share with faculty and staff will be disclosed only according to student records rules. Faculty and staff may provide judgments of a student's ability and character to others in appropriate circumstances, normally with the knowledge and consent of the student concerned, and in accordance with the university's rules on student records.

## B. Students' Rights

The rules on student records also define the following rights of students with respect to their records and the procedures to be followed to guarantee those rights:

1. The right to inspect and review information contained in their educational records
2. The right to challenge the contents of their educational records
3. The right to submit an explanatory statement for inclusion in the educational record if the outcome of the challenge is unsatisfactory
4. The right to prevent disclosure, with certain exceptions, of personally identifiable information
5. The right to secure a copy of the university rules, which includes the location of all educational records
6. The right to file complaints with
the appropriate federal and state agency(ies) concerning alleged failures by the university to comply with applicable laws, rules, and their implementing regulations

## C. Students' Responsibilities

Students are responsible for furnishing, completely and accurately, such pertinent information as required by the university so that it may perform its proper function as an educational institution. If students' circumstances change, e.g., name, address, financial situation, etc., they are responsible for seeing that proper university officials are informed of such changed circumstances.

## V. Student Affairs

Student affairs encompasses a broad area including the freedoms to form associations, to inquire and express opinions, and to participate in institutional government.

## A. Association

Students have the right to form organizations and to join associations to promote their common interests. In doing so, they have the responsibility to follow university policies and procedures, copies of which are available in the Office of Campus Life.

## B. Inquiry and Expression

Students and student organizations have the right to examine and discuss all questions of interest to them, to express opinions publicly and privately, to support causes, and to invite and hear any person of their own choosing. Such activities shall not disrupt the regular and essential operation of the university. Students and student organizations are responsible for following the policies and procedures related to these activities, copies of which are available in the Office of Campus Life.

## C. Student Participation in Institutional Government

Students have the right to express their views by lawful procedures on issues of institutional policy and on matters of general interest to the student body, and to participate in the formulation and application of institutional policy affecting academic and student affairs. Student government, the Associated Students of Central Washington University, is the primary vehicle for student participation in institutional government, and its role is explicitly stated in its constitution and bylaws, copies of which are available in the Office of Campus Life. Other opportunities for involvement in academic and student affairs areas may be found in the various departmental or administrative offices. Having become involved in institutional governance, students are responsible for fulfilling the obligations they have undertaken.

## VI. Student Conduct

Students are members of both the university community and the larger community outside the university. As members of the university community, students are guaranteed those rights described in this document. As members of the larger community, students are afforded those rights guaranteed by the state and federal constitutions, the authority of which extends across both communities.

At the same time, both communities have established standards of conduct designed to protect their essential purposes. The university community has defined in its Student Judicial Code that conduct in which its members may not engage without penalty. The larger community has defined such behavior in its laws.

Outlined below are the standards in disciplinary proceedings established by the university with respect to student conduct which violates the norms of either the university or the larger community.

## A. The University Community

The Student Judicial Code enumerates proscribed behavior and describes procedures followed in cases where students are alleged to have engaged in such conduct. These procedures guarantee procedural due process to the accused students and are fully described in the Student Judicial Code, copies of which are available in the Office of the Vice President for Student Affairs and Enrollment Management.

## B. The Larger Community

If a student's behavior results in charges that both the law of the larger community and the proscriptions of the university's Student Judicial Code have been violated, the university does not waive the right to initiate proceedings in accordance with provisions of the Student Judicial Code.


## Section Two

## Student Judicial Code (Refer to WAC 106-120 for complete code. Revisions and current policy available in the Office of the Vice President for Student Affairs and Enrollment Management.)

## I. General Policy

## A.Definitions

1. "University" shall mean Central Washington University.
2. "Vice president" shall mean the vice president for Student Affairs and Enrollment Management or the vice president's designee.
3. "Student" shall mean a person enrolled at the university either full or part time, pursuing undergraduate, graduate, or extension studies, or a person accepted for admission or readmission to the university.
4. "University community" shall include the employees and students of Central Washington University and all property and equipment of the university.
5. "Hazing" shall include any method of initiation into a student organization or living group, or any pastime or amusement engaged in with respect to such an organization or living group that causes, or is likely to cause, bodily danger or physical harm, or serious mental or emotional harm, to any student or other person attending Central Washington University. The term does not include customary athletic events or other similar contests or competitions.
6. "Sexual assault" occurs when the act is intentional and is committed either by (a) physical force, violence, threat, or intimidation; (b) ignoring the objections of another person; (c) causing another's intoxication or impairment through the use of alcohol or drugs; or (d) taking advantage of another person's incapacitation, state of intimidation, helplessness, or other inability to consent.
7. "Sexual misconduct" occurs when an act is committed without intent to harm another and where, by failing to correctly assess the circumstances, a person mistakenly believes that effective consent was given and did not meet his/her responsibility to gain effective consent.
8. "Sexual harassment" is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature. More specifically, sexually harassing
behavior that includes the following:
(a) Gender harassment, including sexist statements and behaviors that convey insulting, degrading, or sexist attitudes
(b) Seductive behavior encompassing unwanted, inappropriate, and offensive physical or verbal sexual advances
(c) Sexual bribery, involving solicitation of sexual activity or other sex-linked behavior by promise of reward
(d) Sexual coercion of sexual activity or other sex-linked behavior by threat of punishment
(e) Sexual assault, attempted rape, and rape. Additional examples of sexual harassment can be found in the university's Sexual Harassment Policy
9. "Stalking" is a legal term for repeated harassment or other forms of invasion of a person's privacy in a manner that causes fear to its target. Stalking may include such acts as repeated following; unwanted contact (by letter or other means of communication); observing a person's actions closely for an extended period of time; or contacting family members, friends, or associates of a target inappropriately.

## B. Introduction and Purpose

The students of Central Washington University are responsible for complying with policies, standards, rules, and requirements for academic and social behavior formulated by the university for the maintenance of an orderly and responsible functioning of the university community. Students enrolled at any of the university's campuses are expected to uphold these standards both on and off campus. At the same time, students have protection through orderly procedures against arbitrary or capricious actions or decisions by university authorities. Due process is recognized as essential to the proper enforcement of university rules. The purpose of this document is to provide a procedure and rules by which a student will be afforded due process in the matter of alleged violations of university standards, rules, and requirements governing academic and social conduct of students.

The university recognizes a responsibility to resolve behavior problems before they escalate into serious problems requiring the application of these rules. Therefore, the vice president shall generally review and / or investigate student behavioral problems which are referred by university community members or any subsidiary conduct agencies to the Student Conduct Council, or which otherwise come to the attention of the vice president through the
office of Public Safety and Police Services or other official university reports. The vice president and the Problem Solving Team shall be as proactive as possible concerning the resolution of student behavioral problems and use reasonable arbitration and conflict resolution methods in order to prevent such problems from further interfering with the university community or the student's own educational progress.
The vice president shall provide for due process for students throughout the behavioral problem-solving intervention by following the proper steps related to the initiation, investigation, and disposition of complaints against a student as outlined in Section III of this document.

Any student is subject to these rules, independent of any other status the individual may have with the university. Any action taken against a student under these rules shall be independent of other actions taken by virtue of another relationship with the university in addition to that of the student.

## C. Cooperation with Law Enforcement Agencies

Central Washington University distinguishes its responsibility for student conduct from the controls imposed by the larger community beyond the university, and of which the university is a part. The university does not have the responsibilities of a parent for the conduct of students. When students are charged with violations of laws of the nation or state, or ordinances of the county or city, the university will neither request nor agree to special consideration for students because of their status as students, but the university will cooperate with law enforcement agencies, courts, and any other agencies in programs for rehabilitation of students.
Central Washington University reserves the right to impose the provisions of this policy and apply further sanctions before or after law enforcement agencies, courts, and other agencies have imposed penalties or otherwise disposed of a case.

## II. Proscribed Conduct

A student shall be subject to disciplinary action or sanction upon violation of any of the following conduct proscriptions:
A. Disruptive and disorderly conduct which interferes with the rights and opportunities of other students to pursue their academic studies.
B. Academic dishonesty in all its forms including, but not limited to:

1. Cheating on tests
2. Copying from another student's test paper
3. Using materials during a test not authorized by the person giving the test
4. Collaboration with any other person during a test without authority
5. Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of an unadministered test or information about an unadministered test
6. Bribing any other person to obtain an unadministered test or information about an unadministered test
7. Substitution for another student or permitting any other person to substitute for oneself to take a test
8. Plagiarism, which means the appropriation of any other person's work and the unacknowledged incorporation of that work in one's own work offered for credit
9. Collusion, which means the unauthorized collaboration with any other person in preparing work offered for credit
C. Filing a formal complaint with the Office of the Vice President for Student Affairs and Enrollment Management with the intention of falsely accusing another with having violated a provision of this code.
D. Furnishing false information to any university official, especially during the investigation of alleged violations of this code.
E. Furnishing false information to the Student Conduct Council with the intent to deceive, the intimidation of witnesses, the destruction of evidence with the intent to deny its presentation to the Student Conduct Council or the vice president when properly notified to appear.
F. Intentionally setting off a fire alarm or reporting a fire or other emergency or tampering with fire or emergency equipment except when done with the reasonable belief in the existence of a need therefore.
G. Forgery, alteration, or misuse of university documents, records, or identification cards.
H. Sexual assault in any form, including acquaintance rape and other forced and / or nonconsensual sexual activity.
I. Actual or attempted physical/emotional abuse of any person or conduct which threatens or endangers the health and safety of any person or which intentionally or recklessly causes a reasonable apprehension of harm to any person.
J. Harassment of any sort or any malicious act which causes harm to any person's physical or mental well being.
K. Recklessly engaging in conduct which creates a substantial risk of physical harm to another person.
L. Creating noise in such a way as to interfere with university functions or using sound amplification equipment in a loud and raucous manner.
M. Theft or malicious destruction, damage, or misuse of university property, private property of another member of the university community, whether occurring on or off campus; or theft or malicious destruction, damage or misuse on campus of property of a nonmember of the university community.
N. Unauthorized seizure or occupation or unauthorized presence in any university building or facility.
O. Intentional disruption or obstruction of teaching, research, administration, disciplinary proceedings, or other university activities or programs whether occurring on or off campus or of activities or programs authorized or permitted by the university pursuant to the provisions of this document.
P. Intentional participation in a demonstration which is in violation of rules and regulations governing demonstrations promulgated by the university pursuant to the provisions of this document.
Q. Unauthorized entry upon the property of the university or into a university facility or any portion thereof which has been reserved, restricted in use, or placed off limits; unauthorized presence in any university facility after closing hours; or unauthorized possession or use of a key to any university facility.
R. Possession or use on campus of any firearm, dangerous weapon or incendiary device or explosive unless such possession or use has been authorized by the university.
S. Possession, use, or distribution on campus of any controlled substance as defined by the laws of the United States or the state of Washington except as expressly permitted by law.
T. Violation of the university policy on alcoholic beverages which states:
10. Persons 21 years of age or older may possess and / or consume alcoholic beverages within the privacy of their residence hall rooms or apartments. Washington State law provides severe penalties for the possession or consumption of alcoholic beverages by persons under 21 years of age and for persons who furnish alcoholic beverages to minors. All university students should be aware of these laws and the possible consequences of violations
11. The university does not condone the consumption of alcoholic beverages by minors at functions sponsored by Central Washington University organizations. Organizations are held responsible for the conduct of their
members at functions sponsored by the organization and for failure to comply with Washington State law
12. The Student Conduct Council may place on probation any organization or prohibit a specific campus social function when the consumption of alcoholic beverages has become a problem of concern to the university
U. Conduct which violates the university policies on computer use.
V. Violation of clearly stated proscriptions in any published rule or regulation promulgated by any official campus committee, commission, or council acting within the scope of its authority.
W. Violation on or off campus of any city, county, state, or federal law while participating in any university-sponsored activity.
$X$. Conspiracy to engage in hazing or participation in hazing of another.

## III. Initiation, Investigation, and Disposition of Complaints

## A. Philosophy

The Problem Solving Team deals with student behaviors which constitute violations of this code. The Problem Solving Team meets weekly to review Residence Hall Incident Reports filed by resident assistants and building managers, as well as police reports, which deal with both on- and off-campus students. The Problem Solving Team works together to suggest intervention strategies which are considered to be most appropriate and effective for eliminating specific negative student behaviors. The Problem Solving Team is chaired by the dean for Student Affairs and Enrollment Management, and includes representatives from Public Safety and Police Services, University Housing and New Student Programs, Center for Student Empowerment, and the Wildcat Wellness Center.

## B. Process

Incidents that come to the attention of the Problem Solving Team may be addressed in one of the following ways:

1. No action.
2. Informal meetings with relevant university officials.
3. Referral to the Residence Hall Arbitration Council for resolving certain disputes within the residence halls.
4. Initiate proceedings in the Office of the Vice President for Student Affairs and Enrollment Management. Official proceedings in the vice president's office are conducted when it becomes apparent to the Problem Solving Team
that the initial and more informal forms of intervention with a student have been unsuccessful in positively modifying a student's behavior.
C. Investigation and Disposition of Complaints
The following rules will govern the processing of alleged violations of the proscribed conduct listed in the Student Conduct Code, with one exception. Allegations of discrimination, including sexual harassment, will utilize a separate process in order to provide both parties their rights under the law and in accordance with Title VI of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972. Copies of the Discrimination Grievance Process are available in the Office of the Vice President for Student Affairs and Enrollment Management.
5. A complaint alleging misconduct against any student at the university may be filed by anyone at the Office of the Vice President for Student Affairs and Enrollment Management. Students, faculty members, administrators, and other employees of the university shall have concurrent authority to request the commencement of the disciplinary proceedings provided for in this chapter. A person filing a complaint shall be complainant of record.
6. Any student charged in a complaint shall receive written notification from the vice president. Such notice shall:
a. Inform the student that a complaint has been filed alleging that the student violated specific provisions of the Student Conduct Code and the date of the violation(s).
b. Set forth those provisions allegedly violated.
c. Specify a time and date the student is required to meet with the vice president or designee.
d. Inform the student that failure to appear at the appointed time at the vice president's office may subject the student to suspension from the university.
7. When the vice president meets with the student, the vice president shall:
a. Provide for the student a copy of the Student Conduct Code.
b. Review the alleged violation with the student.
c. Conduct an investigation into the alleged violation.
8. Upon completion of the review with the student and / or the investigation, the vice president may:
a. Drop the charges when they appear to be invalid, without substance or capricious.
b. Issue a verbal warning.
c. Apply any of the sanctions as outlined in Section IV if such sanction is warranted by the evidence.
d. Refer the case to the Student Conduct Council.
e. Invoke the summary suspension procedure as outlined in Section VII when deemed appropriate.
9. The vice president shall inform the student that only suspension and expulsion sanctions may be appealed to the Student Conduct Council, and that if an appeal is made, the vice president shall take no action nor make any determination, except for summary suspension, in the matter other than to inform the student of the time, date, and location of the proceeding by the Student Conduct Council.

## IV. Disciplinary Sanctions

The following may be the sanctions imposed by the vice president for Student Affairs and Enrollment Management or by the Student Conduct Council.

## A. Warning

Notice in writing that the student has violated university rules or regulations or has otherwise failed to meet the university's standard of conduct. Such warning will contain the statement that continuation or repetition of the specific conduct involved or other misconduct will normally result in one of the more serious disciplinary actions described below.

## B. Disciplinary Probation

Formal action specifying the conditions under which a student may continue to be a student at the university, including limitation of specified activities, movement, or presence on the CWU campus, including restricted access to any university building. The conditions specified may be in effect for a limited period of time or for the duration of the student's attendance at the university.

## C. Restitution

An individual student may be required to make restitution for damage or loss to university or other property and for injury to persons. Failure to make restitution will result in suspension until payment is made.

## D.Suspension

Dismissal from the university and from status as a student for a stated period. The notice suspending the student will state in writing the term of the suspension and any condition(s) that must be met before readmission is granted. The student so suspended must demonstrate that the
conditions for readmission have been met. There is to be no refund of fees for the quarter in which the action is taken, but fees paid in advance for a subsequent quarter are to be refunded.

## E. Deferred Suspension

Notice of suspension from the university with the provision that the student may remain enrolled contingent on meeting a specified condition. Not meeting the contingency shall immediately invoke the suspension for the period of time and under the conditions originally imposed.

## F. Expulsion

The surrender of all rights and privileges of membership in the university community and exclusion from the campus without any possibility for return.

## G.Forfeiture of Entitlements or Awards

For the specific instance of hazing, forfeiture of any entitlement to statefunded grants, scholarships, or awards for a specified period of time.

## V. Campus Judicial Council

## A. Purpose

The Student Conduct Council shall be the principal campuswide conduct body with jurisdiction over all students, whether graduate or undergraduate, and student organizations and authority to hear all charges of misconduct. It has authority to impose the sanctions described in Section IV. Other divisions of the university may elect to establish subsidiary conduct agencies over which the Student Conduct Council will have appellate jurisdiction. Subsidiary conduct agencies or persons levying sanctions should devise sanctions which are in proportion to both the nature and extent of the misconduct, and which redress injury, damage, expense, inconvenience and/or grievance as far as possible. Appeal from subsidiary councils or agencies must be made within five working days from the time of publication of findings by said subsidiary conduct agency. Failure to file such an appeal will constitute and be construed as full acceptance by all parties of the findings.

## B. Composition

The following rules govern the composition of the Student Conduct Council:

1. The council shall consist of six faculty members holding the rank of assistant professor or above, and eight students, at least one of whom should be a graduate student if a graduate student files for appointment to the council.
a. The faculty members of the council shall be designated in accordance with procedures established by the Faculty Senate.
b. The student members of the council shall be selected in accordance with procedures established by the constitution of the Associated Students of Central Washington University. Eight student members shall be appointed, each student being appointed for a term of one calendar year. Terms of office for students begin with the first day of instruction of the academic year for which the student is appointed.
2. A Student Conduct Council chair shall be elected at the first meeting each academic year and shall continue in office until the person resigns or is recalled. The duties of the chair are as follows:
a. To call regular and special meetings of the council by notification to members at least 24 hours in advance of the meeting time, except in bona fide emergency situations.
b. To preside over all regular and special meetings.
c. To act as presiding officer at all meetings of the proceeding board.
3. Two of the faculty members and three of the student members of the council shall constitute a quorum.
4. The vice president shall appoint a designee as a Student Conduct Council advisor whose duties shall be to:
a. Convene the council.
b. Advise the council during all meetings and hearings.

## VI. Procedures for Proceeding Before the Campus Judicial Council

A. When a case is referred to the Student Conduct Council the vice president shall forward to the council:

1. A statement describing the alleged misconduct
2. The name and address of the complainant
3. The name and address of the student charged
4. All relevant facts and statements
B. The secretary to the council shall call a special meeting of the council and arrange for a proceeding in the following manner:
5. The council shall determine the time and place of the proceeding, which shall be at least 10 days after delivery of written notice to the student. In the interest of timeliness and efficiency, upon the request of either the student or the vice president, this

10-day interval may be waived by the vice president, with the student's permission. Time and place shall be set to make the least inconvenience for all interested parties. The chair may change the time and place of the proceeding for sufficient cause.
2. The council shall draw lots to determine a proceeding board consisting of five student names and three faculty names, with one student and one faculty serving as alternates to be available until the proceeding board has been constituted, and the chair who will act as the proceeding officer.
3. No case shall be heard unless the full membership of the proceeding board is present.
4. All cases will be heard de novo, whether the case be an appeal from a subsidiary conduct body or is heard as an original complaint.
C. The secretary to the council shall send written notice by certified mail of the proceeding to the student's last known address. The notice shall contain:

1. A statement of the date, time, place, and nature of the proceeding
2. To the extent known, a list of witnesses who will appear
3. A summary description of any documentary or other physical evidence that would be presented by the university
D. The student shall have all authority possessed by the university to obtain information he or she specifically describes in writing and tenders to the council chair no later than two days prior to the proceeding or to request the presence of witnesses, or the production of other evidence relevant to the proceeding. However, the university shall not be liable for information requested by the student or the presence of any witnesses when circumstances beyond the control of the university prevent the obtaining of such information or the attendance of such witnesses at the proceeding.
E. Proceedings will ordinarily be held in closed session unless the proceeding board determines there is a compelling reason for the proceeding to be open, or the student requests an open proceeding. A closed proceeding shall include only members of the proceeding board, persons directly involved in the proceeding as parties, and persons called as witnesses.
F. The proceeding shall be audio tape recorded, and the tape shall be on file at the Office of the Vice President for a period of three years.
G. The university shall be represented by the vice president who shall present the university's case against the student.
$H$. The student may be accompanied by counsel, or another third party, who may offer advice. If the student utilizes an attorney as advisor, the student must give the vice president two days notice of intent to do so. If the student elects to be advised by an attorney, the vice president may elect to have the university advised by an Assistant Attorney General.
I. The council chair shall insure that:
4. The proceeding is held in an orderly manner giving full care that the rights of all parties to a full, fair, and impartial proceeding are maintained
5. The charges and supporting evidence or testimony shall be presented first, and that there is full opportunity for the accused student to challenge the testimony and / or evidence, and to cross examine appropriately
6. The student charged shall next present evidence or testimony to refute the charge, and that there is full opportunity for the accuser to challenge testimony and / or evidence, and to cross examine appropriately
7. Only those materials and matters presented at the proceeding will be considered as evidence. The presiding officer shall exclude incompetent, irrelevant, immaterial, and unduly repetitious evidence
J. Any person disruptive of the proceeding or any other procedure described in this document shall be excluded from the process by the chair of the Student Conduct Council or by the vice president using such means as are necessary to ensure an orderly process. Any student engaging in such interference shall be in contempt and may be summarily suspended from the university by the Student Conduct Council or the vice president immediately. The student shall be subject to a suspension or any lesser sanction as may be determined by the Student Conduct Council or the vice president at the time the interference takes place or within 15 working days thereafter.
K . The student has a right to a fair and impartial proceeding, but the student's failure to cooperate with or attend a proceeding shall not preclude the council from making its finding of facts, conclusions, and recommendations. Failure by the student to cooperate may be taken into consideration by the Student Conduct Council and the vice president in deciding the appropriate disciplinary action.
L. Upon conclusion of the proceeding, the proceeding board in closed session shall
consider all the evidence presented and decide by majority vote to exonerate the student or to impose one of the sanctions authorized by this document.
M. The student shall be provided with a copy of the board's findings of fact and conclusions regarding whether the student did violate any rule or rules of the Student Conduct Code and the board's decision as to the appropriate sanction to be imposed.
N . If a student charged with misconduct under this code has been charged with a crime for the same act or closely related acts by federal, state, or local authorities, or if it appears that such criminal charge is under consideration, the Student Conduct Council may postpone action on the complaint until there has been a disposition of the criminal charge or of the consideration of filing such charge. However, prior to action by other agencies, the council may proceed to hear and decide the case if in the judgment of the council, the nature of the alleged misconduct, and the circumstances surrounding it pose a serious risk to the health or well being of the student or other members of the university. If there is a determination of guilt by the council and if the subsequent criminal proceedings result in a judgment of acquittal, the student may petition the Student Conduct Council for a rehearing.

## VII. Summary Suspension Proceedings

The vice president may summarily suspend any student from the university pending investigation, action, or prosecution of charges of an alleged proscribed conduct violation or violations, if the vice president has reason to believe that the student's physical or emotional safety and wellbeing, or the safety and well-being of other university community members, or the protection of property requires such suspension.
A. If the vice president finds it necessary to exercise the authority to summarily suspend a student, the vice president shall:

1. Give to the student an oral or written notice of intent to determine if summary suspension is an appropriate action.
2. Give an oral or written notice of the alleged misconduct and violation(s) to the student.
3. Give an oral or written explanation of the evidence in support of the charge(s) to the student.
4. Determine a time for the summary suspension proceeding to be held within 36 hours.
5. Give an oral or written notice of the time and place of the summary suspension proceeding before the vice president.
6. Give an oral or written explanation of the summary suspension which may be imposed on the student.
B. At the place and time designated for the summary suspension proceeding, the vice president shall:
7. Consider the evidence relating specifically to the probability of danger to the student, to others on the campus, or to property.
8. Provide the student with an opportunity to show why continued presence on campus does not constitute a danger to the physical and emotional well-being of self or others, or a danger to property.
9. Give immediate oral notice of the decision to the student, followed by written notice.
10. If summary suspension is warranted, summarily suspend the student for no more than 15 working days with a Student Conduct Council proceeding of the allegations to have commenced by the end of the suspension period.
C. If a student has been instructed by the vice president to appear for summary suspension proceedings and then fails to appear at the time designated, the vice president may suspend the student from the university and shall give written notice of suspension to the student at the student's last address of record on file with the university.
D. During the period of summary suspension, the suspended student shall not enter the campus of the university other than to meet with the vice president. However, the vice president may grant the student special permission for the express purpose of meeting with faculty, staff, or students in preparation for a proceeding before the Student Conduct Council.

## VIII. Readmission After Suspension

Any student suspended from the university under the provisions of the Student Conduct Code may be readmitted upon expiration of the time period specified in the document of original suspension.

If circumstances warrant reconsideration of the suspension prior to its time of expiration, the student may be readmitted following approval of a written petition submitted to the vice president. Such petitions must state reasons which either provide new evidence concerning the situation which resulted in the suspension, or demonstrate that earlier readmission is in the best interest of the student and the university. Approval
for such readmission must be given by the vice president or by the Student Conduct Council.

Students who have been suspended and whose suspension upon appeal is found to have been unwarranted shall be provided full opportunity to reestablish their academic and student standing to the extent possible within the abilities of the university, including an opportunity to retake examinations or otherwise complete course offerings missed by reason of such action.

## APPENDIX C

## I. Academic Appeals

(Complete policy available in the Office of the Vice President for Student Affairs and Enrollment Management.)
A. Academic grievances are defined as any of the following:

1. A claim by the student that an assigned grade is the result of arbitrary or capricious application of otherwise valid standards of academic evaluation.
2. A claim by the student that the standards for evaluation are arbitrary or capricious.
3. A claim by the student that the instructor has taken an arbitrary or capricious action which adversely affects the student's academic progress.
4. A claim by the student that a university department, program, or office has made a decision not in keeping with university policy or taken an arbitrary, capricious, or discriminatory action which adversely affects the student's academic progress.
B. A student wishing to pursue an academic grievance must take the following steps to try to resolve the grievance prior to the filing of an official academic appeal:
5. The student shall first attempt to resolve the matter with the instructor.
6. If resolution is not achieved between the student and instructor, the student shall ask the department chair to resolve the grievance.
7. If resolution is not achieved at the department chair level, the chair shall forward a written summary to the dean of the school or college in a further effort to achieve resolution.
8. If resolution is not achieved at this point, the student may petition for a hearing before the Board of Academic Appeals. (An appointment should be made to meet with the associate or assistant vice president for Student Affairs and Enrollment Management to obtain the necessary forms and information relative to filing the petition.)

# APPENDIX D 

## Accommodation Policy and Procedures

## I. Accommodation Policy for Students with Disabilities

Title II of the Americans with Disabilities Act of 1990, the Washington State law against discrimination, RCW 49.60, RCW 28B.10.910914, and Section 504 of the Rehabilitation Act of 1973 prohibit discrimination against persons of disability on the basis of disability. Central Washington University is committed to providing reasonable accommodations to all qualified persons with disabilities to ensure equal access to programs, activities, and services.

## A. Definitions

To be considered disabled, a student must have a physical, mental, or sensory condition that significantly affects one or more of life's major functions (i.e., walking, talking, hearing, seeing, working, learning, etc.).
A student is considered qualified if the student: 1) Meets all eligibility criteria, 2) Is able to (with or without accommodation) perform the essential functions of the program or activity, and 3) Is able to benefit from a service.

The term accommodation means any change or adjustment that makes it possible for a student with a disability to participate in a program or activity or benefit from a service.

The term reasonable means that provision of the required accommodation will not result in; 1) an undue financial hardship, 2) an undue administrative hardship, or 3) a fundamental alteration to the nature of the program.

Please note that a decision not to provide accommodation must:

1. Take into consideration fiscal resources of the entire university.
2. Be explained in writing by the university president.
3. Be defended by the university if legally challenged.

## II. Accommodation Procedures

The following procedures have been established in a sincere effort to accommodate students with disabilities:

## A. Establishing Eligibility for

 Accommodation1. Requesting Accommodation: Students wishing to request accommodation are responsible for initiating contact with the Center for Disability Services.
2. Documentation: The student is responsible for providing documentation of disability that includes the names and results of all tests used to diagnose the disability, describes the nature and extent of the disability, and identifies the disability-related functional limitations experienced by the student. This documentation is confidential medical information and will be maintained in separate files in the Center for Disability Services.
B. Provision of Academic Accommodations
3. The Center for Disability Services is responsible for:
a. Assessing the effect of a student's disability on his or her ability to access the educational process
b. Identifying accommodations that the university will provide to ensure that CWU's programs, activities, and services are accessible
c. Communicating procedures that 1) outline student and university responsibilities and 2 ) set timelines for requests and delivery of accommodations.
d. Providing services to help faculty and staff accommodate the needs of students.
4. The student is responsible for:
a. Making the appropriate people on campus aware of his or her need and eligibility for accommodation in a timely manner.
b. Working with the faculty, staff, and the Center for Disability Services to determine how the accommodation will be provided.
c. Following policies and procedures set forth by the university and by the Center for Disability Services.

NOTE:

1. The university has no obligation to accommodate a student who fails to establish eligibility with CWU's Center for Disability Services.
2. The university reserves the right to suspend accommodations to students who abuse services or fail to follow university policies and procedures.
3. If failure to use an accommodation results in damage to CWU equipment, the student will be held responsible for the repair or replacement of the damaged equipment.
4. Faculty and staff are responsible for:
a. Working with the student and the Center for Disability Services to identify an effective means of providing requested accommodations
b. Providing requested accommodations

## NOTE:

To assist faculty and staff in the provision of requested accommodations, the Center for Disability Services office has programs to provide print materials in alternative formats, administer alternative examinations, furnish sign language interpreters, etc. If, for any reason, the faculty or staff decides not to utilize service provided by the Center for Disability Services, the faculty or staff member and her or his department will assume administrative and fiscal responsibility for ensuring that the student's need for accommodations is met.

## C. Determination of Qualified

1. The student must meet all prerequisite and eligibility criteria as set forth by the department unless that criteria is discriminatory on the basis of disability.
2. The student must be capable of performing the essential elements of the course, activity, or program. If in question, the student is responsible for working with the academic department, appropriate faculty or staff, and the CDS director to determine if he or she (with or without accommodation) can meet the eligibility criteria and technical standards of the course, activity, or program.
3. The academic department or faculty is responsible for:
a. Identifying the eligibility criteria and technical standards for each academic program or course. This should be done prior to the time that an academic program or course is offered. The eligibility criteria and technical standards of an academic program or course are the key skills, knowledge, or abilities that the program or course is designed to teach the student. When identifying the eligibility criteria and technical standards, faculty should focus on the desired outcome, not the process used to reach that outcome.
b. Working with the student and the CDS director to determine if a student's disability would prevent him or her from meeting (with or without accommodation) the eligibility criteria and technical standards of an academic program or course.
4. The CDS director is responsible for working with students, the academic department, and the faculty to:
a. Review the determination of a student's ability (with or without accommodation) to acquire the skills that comprise the eligibility criteria and technical standards of an academic program or course.
b. Review eligibility criteria and technical standards that present barriers to ensure that those
elements are essential and not discriminatory against students of disability.

## D.Grievance

Any student who believes that she or he has been discriminated against on the basis of disability may file a grievance in the Office for Equal Opportunity, room 211, Barge Hall (509-963-2205 or TDD 509-963-2007).

Grievances may be pursued either formally or informally. A list of state and federal agencies which investigate alleged violations of disability law is also available in the Office for Equal Opportunity.

## APPENDIX E

## Cooperative Education

## I. Introduction

The Cooperative Education experience is offered through the Career Services department in conjunction with academic departments. The Cooperative Education Program is an educational plan designed to integrate classroom study with planned, supervised, and evaluated employment experience linking academic programs with students' career goals and interests.

Cooperative Education has a profound effect on the way learning takes place because it is interactive and reinforcing. Students ascribe new value to what is learned in the classroom because, either in principle or practice, they are applying it to the test of a real job. The added ingredient for learning is experience.

## II. Qualifying Parameters for Student Participation

The following are the university's minimum requirements (departments may have additional requirements) for student participation:
A. The student is enrolled and pursuing a degree at Central Washington University.
B. The student is in good academic standing.
C. The field experience is directly related to the student's major field of study and / or career goal.
D. The student has completed the appropriate prerequisite courses and possesses the skills and knowledge required for placement in a suitable level of field experience as determined by the student's department.
E. The student must have a department faculty cooperative education (co-op) advisor for enrollment in a Cooperative Education course.
F. The student's field experience is a practical position where the student is actively engaged in hands-on learning, not just observing.

## III. Program Enrollment

A. Students must complete a formal learning agreement with a learning plan that contains relevant objectives and activities. The agreement form constitutes a field study plan that includes a description of academic requirements such as term papers or projects, assigned readings, research projects or theses, progress reports, final reports, etc. The Learning Agreement must be endorsed by the employer or supervisor, the student, the faculty co-op advisor, department chair, and the Associate Director of Cooperative Education.
B. The student must submit a completed Cooperative Education Learning Agreement form to Career Services to complete the registration process for enrollment in the Cooperative Education course.
C. Cooperative Education courses are numbered 290, 490, and 590. Credits are variable 1-5 for 290, 1-12 for 490, and 1-8 for 590-level courses.
D. A freshman should complete at least 45 credits at CWU prior to enrolling in the Cooperative Education course. A transfer student should complete at least 15 credits at CWU and have a total of 45 credits, including transfer credits, prior to enrolling in the Cooperative Education course.
E. The student should complete a minimum of 90 credit hours with 10 or more credits in his or her major to be eligible for enrollment in the 490 level course. Departments may have additional requirements for this level of experience.
F. A student who desires a career exploration experience, or who has not declared a major, is limited to enrolling for the Cooperative Education course at the 290 level.
G. The student may reenroll for the Cooperative Education course, but, in no case will a student be allowed to count more than 10 credits at the 290 level, nor more than 20 total credits toward graduation requirements. No more than 10 credits are accepted in transfer. No more than eight credits may be applied to a graduate degree.
H. Cooperative Education courses may be repeated if field experience learning objectives and activities are distinctly different from previous work or field experience.

## IV. Awarding of Credits

A. Cooperative Education credits are to be awarded on the basis of quality, magnitude, and the level of learning (learning plan, relevant objective, and activities) that take place during the field experience.
B. For university standardization practice, credits are awarded using a minimum of 40 or more clock hours of approved field experience for each credit hour earned. Clock hours will include time spent to complete the work phase and the academic phase (term paper or project(s), journal or log, progress reports, assigned readings, final report, etc.) of the field experience.
C. An appropriate means for evaluation (progress reports, performance evaluations, final report, etc.) of the learning is established between the student, the employer, and the faculty coop advisor.
D. The student will be awarded an $S$ or U grade (letter grade optional with approval of faculty co-op advisor) for the Cooperative Education course.
E. If the field experience is terminated by the employer or academic department, the student will not receive credit.
F. Credit will not be given for previous field or work-study experience.
G. Credit for the Cooperative Education course will be awarded for the quarter in which the majority of hours for the experience were acquired.
H.If the student leaves the field experience prior to completion of the hours, objectives, and / or academic requirements, no credit will be received and a grade of Incomplete or Unsatisfactory will be awarded. Grading and award of credit is based solely on completion of the agreedupon parameters set forth in the Learning Agreement.

## V. Student Supervision and Coordination

A. Daily supervision of the student is to be provided by the cooperating company supervisor who will be identified prior to the field experience.
B. Cooperative Education courses shall be under the direct guidance, direction, and coordination of a faculty co-op advisor as part of the regular teaching load. Credit for faculty load shall comply with faculty code, Part 4, Section 7.20, B, 1, a, (3) of the current (1992) code. The faculty coop advisor is available to the student in the field. The faculty advisor arranges and coordinates visitations or contacts with the employer or supervisor and the student a minimum of twice each quarter. The faculty co-op advisor keeps a file
on each student's work (term paper or project(s), final report, etc.) with his or her department office.
C. The Career Services office is an academic support service which facilitates the advising of students in the placement and cooperative education process, maintaining direction, sustaining quality control for the program, conducting program research, assessment, and evaluation, and providing training and faculty co-op advisors and staff.
D. The Career Services office staff is available for field visitations or contacts when suitable faculty representation is not available or upon request of the faculty co-op advisor or department chair.

## VI. Student Placement Process

A. The placement process is intended to be a real-life job seeking experience for the student, including competition for positions.
B. The Career Services office advises students in the placement process through the maintenance of past internship placements and current listings that are submitted by employers. In addition, the staff is available to provide assistance with resumes, cover letters, job search techniques, and interviewing tips.
C. The student should check with their faculty advisor for internship leads as many departments have developed their own internship connections.
D. Students may propose their own placement site to the Faculty Co-op advisor who determines the suitability of the placement with a given employer for Cooperative Education credit.
E. Students may find a "regular" position that can double as a co-op experience if there is sufficient challenge and opportunity for learning that can justify university credit. Decisions on whether the experience warrants university credit rest with the academic department and the coordinating faculty.
F. The placement must conform to affirmative action and EEO/Title IX / ADA guidelines.

## VII. Position Description for Field Experience

The cooperating employer or agency must agree to provide a written description of field experience tasks, identify a field supervisor and submit his or her qualifications to the appropriate university department and the Office of Cooperative Education prior to approval of the Learning Agreement.

## VIII. Student Compensation

A. Paid field experience positions are sought where possible and practicable.
B. Unpaid positions may be used but are limited to the equivalent of working fulltime for one quarter (approximately 400 hours).
C. Students should not be put in a position where they are exploited as a source of cheap labor, replace, or are in direct competition with regular employees.
D. Participation in Cooperative Education unpaid experiences should not become an undue financial burden for the student or be the cause of the student withdrawing from the university for financial reasons.
E. Health, accident, and disability insurance are the responsibility of the student, and if not provided by the employing agency, should be purchased individually. In most instances, the group coverage for students is adequate.
F. Central Washington University is not responsible for liability or malpractice insurance for individual students. If such coverage is desired but is not provided by the co-op agency, students may wish to arrange individual coverage.
G. Students receiving financial aid must check with the Financial Aid Office prior to accepting a paid placement. Students receiving financial aid must be sure their academic responsibilities for their co-op experience are completed by the end of the registered quarter. Any student with an "Incomplete" grade at the time of financial awards for the next quarter jeopardizes their position to receive their financial aid.
H. If the student is receiving financial aid, Federal Law requires that any income be declared. If the student is employed and completes a W-4 form, this reporting will occur through regular employment withholding and a W-2 form at tax time. If the student does not complete a W-4 form for the employer, they must declare their income with the Financial Aid Office through a specific form that is available from the Financial Aid Office.

## IX. Program Evaluation

Routine review of evaluations from employers, faculty, and students occur on a quarterly basis along with continuous review of field placement sites.

The Cooperative Education Program is subject to periodic review and assessment, completed at least once every five years.

## APPENDIX F

## Drug and Alcohol Policies

(A complete policy is available in the office of the Vice President for Student Affairs and Enrollment Management.)

On December 12, 1989, the president of the United States signed the Drug-Free Schools and Communities Act Amendments of 1989. They required institutions of higher education to implement a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by its students and employees on school premises or as part of any of its activities.

It was developed in response to a proposal that Congress pass legislation requiring schools, colleges, and communities to implement and enforce firm drug prevention and education programs as a condition of eligibility to receive federal financial assistance.

In addition, the Drug-Free Workplace Act of 1988 requires applicants for federally funded grants and contracts to certify that they will institute affirmative steps to prohibit the unlawful possession, manufacture, distribution, and use of controlled substances in the workplace.

Taken together, the Drug-Free Schools and Communities Act, the Drug-Free Workplace Act, and Washington State law established the legal requirements to the Central Washington University policy.

As a condition of employment at the university, all employees will abide by the terms of this policy and will notify their supervisor of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after the conviction.

## I. Philosophy

The mission of Central Washington University is to provide the highest-quality education possible at the post-secondary level. CWU must provide opportunities for learning to live more fully as well as training to make a living. The university also endeavors to provide students with programs and activities that enhance the academic curriculum, while contributing to the development of wellrounded individuals.

In order to accomplish this mission, the educational environment within the university community must enhance the intellectual, emotional, and physical growth of the entire community, including students, faculty, administrators, staff, and others.

Use of alcohol and other drugs, and the problems associated with their abuse, are becoming increasingly commonplace. The educational environment is adversely affected by the use and abuse of alcohol and
other drugs through decreased academic and work performance, increased attrition rates, and damage to the growth and development of university community members as they seek to become contributing citizens to the community and society.

CWU is mandated to develop and maintain educational efforts and environmental enhancements that promote the health and well being of the entire university community.

The university views alcohol and drug abuse as a treatable illness. As with other illnesses, we support the efforts of those seeking assistance. In addition, we seek to improve our environment in ways that set positive examples for others.

To this end, the university first affirms its prohibition of the use of alcohol and illicit drugs on campus. In addition, the university does not condone the consumption or possession of alcoholic beverages by employees or students, whether of legal age, or underage, in areas the university deems to be public access areas, except as allowed under state law and / or state permit.

In light of the serious consequences associated with the abuse of alcoholic beverages, CWU also recognizes its responsibilities to engage in prevention and intervention activities with members of the university community. Finally, the university affirms its intention to develop appropriate sanctions for violations of its drug and alcohol policy, and to the application of these sanctions in a consistent manner.

## II. Policies and Procedures

The purpose of this section is to briefly summarize the key points of the university policy regarding the distribution, possession, and use of alcohol and other drugs. To comply with the requirements of the DrugFree Schools and Communities Act and the Drug-Free Workplace Act, a full and complete description of relevant laws, procedures, sanctions, and prevention information found in the Drug and Alcohol Policy is available through the Office of the Vice President for Student Affairs and Enrollment Management.

## III. Legal Issues

The university's policy regarding the possession and consumption of alcohol and other drugs on campus has been developed in keeping with Washington State law and the governor's policy on alcoholism and drug dependency.

State laws regulate behavior such as consumption of alcohol in public places, furnishing of liquor to minors, illegal purchase of alcohol, and distribution of controlled substances, to name just a few. Washington State laws are described in
the Revised Code of Washington and the Washington Administrative Code.

Members of the university community may review these documents at the university library. A brief description of applicable local, state, and federal laws is also provided in Addendum E.

CWU's policy presupposes that each member of the university community has read, understands, and agrees to abide by these local, state, and federal laws.

The Washington Administrative Code (WAC 106-120-027) states that a student shall be subject to disciplinary action or sanction upon violation of any of the following conduct proscriptions:
A. Possession, use, or distribution of any controlled substance as defined by the laws of the United States or the state of Washington, except as expressly permitted by law.
B. Violation of the university policy on alcoholic beverages that states:

1. Persons 21 years of age or older may possess and / or consume alcoholic beverages in the privacy of specifically designated 21-or-older residence hall rooms and / or apartments. Washington State law provides severe penalties for the possession or consumption of alcoholic beverages by persons less than 21 years of age and for persons who furnish alcoholic beverages to minors. All university students and staff should make themselves aware of these laws and the potential consequences associated with violations.
2. The university does not condone the consumption of alcoholic beverages by minors at functions sponsored by Central Washington University organizations on or off campus. Organizations and advisors are held responsible for monitoring the conduct of their members at functions sponsored by the organization and for failure to comply with Washington State law and university policies.
3. The vice president for Student Affairs and Enrollment Management may place any organization on probation or prohibit a specific campus social function when the consumption of alcoholic beverages has become a problem of concern to the university.
C. Violation of clearly stated proscriptions in any published rule or regulation propagated by any official campus committee, commission, or council acting within the scope of its authority.
D. On-campus violation of any state or federal law or infringement of any state or federal law off campus while participating in any university-sponsored activity.

## IV. Procedures for Servicing Alcoholic Beverages on Campus

University departments and student organizations are encouraged not to involve alcoholic beverages in any sponsored function. If they choose to do so, they are urged to consider the effects and the responsibility they assume in making such decisions. If members of the department or organization choose to include alcoholic beverages in their functions, they must comply with all local and state laws, as well as specified liquor guidelines.

All groups and organizations sponsoring social events held on the CWU campus and all recognized university groups holding events off campus which involve the serving and consumption of alcoholic beverages are obliged to comply with the procedures and guidelines outlined in Addendum D and use a social attendant. Contact the Scheduling Center at 509-963-1321 for more information on social attendants.

Any party that intends to serve alcoholic beverages on campus must adhere to the following procedures:
A. All events will be staffed by one or more certified social attendant(s) who has/have completed the required training course provided by the CWU Student Health, Counseling, and Wellness staff. The number of social attendants for any given event will be determined and subsequently hired through the university's Scheduling Center.
B. If alcoholic beverages are to be served at a social event, the sponsoring university group is required to provide non-alcoholic beverages as well. Provision for serving nonalcoholic beverages must be outlined on the university permit. The variety of alcoholic and non-alcoholic beverages available to be served shall be equal. The sponsoring group is also encouraged to provide food at the event, in keeping with the intent of a banquet permit.
C. Personal identification, which must include a picture of the individual, will be checked to verify age as a way to prevent minors from being served and imbibing alcoholic beverages. Individuals whose age cannot be verified by identification provided to the social attendant will not be served alcoholic beverages. Acceptance or rejection of identification is within the

discretion of the social attendant.
D. If the social attendant determines that an individual has consumed too much alcohol, he or she will no longer be served beverages containing alcohol.
E. If an individual becomes verbally and / or physically abusive, the social attendant may do any or all of the following:

1. Inform the event coordinator of the problem behavior
2. Call the Student Union night manager, 509-899-3094
3. Call University Police, 509-925-8534
F. After the event, a written report will be completed by the social attendant, which will describe any problems, concerns, or suggestions that pertain to the event. The report will be kept on file. It will be reviewed if or when the sponsoring organization again requests university space for social functions involving alcohol consumption. Documentation of problems or violations at previous social events may result in the group not being allowed an alcohol-use permit in the future. In addition, any areas of concern will be provided, in writing, to the sponsoring organization after the event. A copy of this and any subsequent communication will be kept on file in the Scheduling Center.
G. Sponsoring organizations should be aware of the consequences of failure to comply with the policy regarding the serving and consumption of alcoholic beverages. The individuals responsible for the event will be held accountable under all Washington State laws. Other possible consequences include, but are not limited to:
4. Sponsoring clubs and organizations may lose recognition as official university clubs and organizations.
5. Visiting groups may not be allowed to use university facilities in the future.
6. Other university groups may not be issued alcohol use permits in the future.

## V. Advertisement

There will be no marketing or advertising of alcoholic beverages on the Central Washington University campus, except as allowed by state law. The university name will not be associated with the advertising of alcoholic beverages.

## VI. Problem-solving Team

When student behavior problems associated with alcohol and other drug abuse occur, the university employs a team problemsolving approach. The director of University Housing and New Student Programs, chief of Public Safety and Police Services, director of the Wildcat Wellness Center, and director
of the Center for Student Empowerment join the assistant vice president for Student Affairs weekly to review residence living incidence reports filed by residence advisors (RAs) and managers, as well as campus police reports which cover both on- and offcampus students. This problem-solving team then deals with student behavior problems generally breaching the conduct proscriptions contained within CWU's student judicial code (WAC 106-120). It has been found that alcohol and other drug abuse is involved in the majority of student behavioral problems. The problem-solving team works together to suggest intervention strategies that are considered the most appropriate and effective for eliminating specific negative student behaviors, especially those related to substance abuse. The team may suggest various forms of intervention including, but not limited to, the following:
A. A meeting with members of the residence living student staff
B. A meeting with one of the residence living or housing administrative staff
C. A meeting with the Wildcat Wellness Center director or other appropriate, fulltime university staff members
Official hearings in the Office of the Vice President for Student Affairs and Enrollment Management are conducted when it becomes apparent to the problem-solving team that the initial and more informal forms of intervention with a student have been unsuccessful in positively modifying a student's behavior.

## VII. University Sanctions for Violations of Proscribed Student Conduct

Official university action will be taken when violation of state law or university policy regarding alcohol and other illicit drugs occurs. Repeated violations carry more significant consequences. The Office of the Vice President for Student Affairs and Enrollment Management may include in the sanction(s) mandated contact with the Wildcat Wellness Center director and / or direct referral for assessment through Kittitas County's Alcohol Drug Dependency Service (ADDS) or other state licensed treatment agencies. If alcohol or other drug abuse is a related factor in the violation of other proscribed conduct, the same mandate(s) may be considered appropriate.

Following are the sanctions available as they appear in the CWU Student Judicial Code:

1. Warning. Notice in writing that the student has violated university rules or regulations, or has otherwise failed to meet the university's standard of conduct. Such warning will contain the statement that continuation or repetition of the specific
conduct involved or other misconduct will normally result in one of the more serious disciplinary actions described below.
2. Disciplinary Probation. Formal action specifying the conditions under which a student may continue to be a student at the university, including limitation of specified activities, movement, or presence on the CWU campus. The conditions may be in effect for a specified time or for the duration of the student's attendance at the university.
3. Restitution. An individual may be required to make restitution for damage or loss to university or other property and for injury to persons. Failure to make restitution will result in suspension for an indefinite time period as set forth in subsection (4) below, provided that a student may be reinstated upon payment.
4. Suspension. Dismissal from the university and from student status for a stated period. The notice suspending the student will spell out in writing the term of the suspension and any condition(s) that must be met before readmission is granted. A student so suspended must demonstrate that the conditions for readmission have been met. There is to be no refund of fees for the quarter in which the action is taken, but fees paid in advance for a subsequent quarter will be refunded.
5. Deferred Suspension. Notice of suspension from the university with the provision that the student may remain enrolled contingent on meeting a specified condition. Not meeting that contingency shall immediately invoke the suspension for the time period and under the conditions originally imposed.
6. Expulsion. The surrender of all rights and privileges of membership in the university community and exclusion from the campus without any possibility for return.
7. Standard Alcohol Sanctions with Parental Notification:

- First violation: Meeting with area coordinator and "Prime for Life Class" (requires a study guide*). Parental notification may be used for first offense when incident includes a medical concern, violence, noise complaint, resistance, or destruction of property.
- Second violation: Meeting with area coordinator, "Prime for Life Class" (requires a study guide*), parental notification, referral to Wildcat Wellness Center director for alcohol/ drug screening, and possible other sanctions that may include referral to Residence Hall Arbitration Council.
- Third violation: Combined meeting with area coordinator and representative of the Office of the Vice President for Student Affairs and

Enrollment Management, parental notification, referral for formal alcohol/ drug assessment, other possible sanctions; and a requirement that the student follow all recommendations.

- Fourth violation: Referral to the Office of the Vice President for Student Affairs and Enrollment Management for an automatic suspension from the university for one full academic year; referral to the Office of the Vice President for Student Affairs and Enrollment Management for an action plan to allow re-entry, including full compliance with alcohol/drug assessment recommendations, and parental notification.
* The cost of the study guide will be charged to the student's account.
The Office of the Vice President for Student Affairs and Enrollment Management may invoke a Summary Suspension of any student from the university pending investigation, action, or prosecution of charges of an alleged violation of proscribed conduct when there is reason to believe that their physical or emotional safety and well-being, the safety and well-being of other university community members, or the protection of property requires such suspension.

When chronic alcohol or other drug use is involved, re-entry after a period of suspension or continuation in school on a deferred suspension may be contingent upon the student successfully completing an appropriate treatment program. The specific treatment would be recommended by the Wildcat Wellness Center director and / or by members of the staff of local substance abuse treatment agencies. Generally, documentation from treatment counselors or program directors confirming successful completion of treatment and a positive prognosis for recovery are required for reinstatement or continuation in school.

## VIII. Employment Education and Referral for Alcohol and Other Drug Issues

Alcoholism and drug dependency are defined as illnesses that may interfere with an employee's ability to perform assigned work satisfactorily or that adversely affect job behavior. Employees are encouraged to voluntarily seek expert assistance for alcoholism, alcohol abuse, drug dependency, or any other job-impairing personal problem. Assistance is available through a variety of professional resources on campus and in the community. Questions regarding medical insurance coverage for professional services should be referred to the employee's medical plan provider. The university contracts for confidential employee assistance with the Employee Advisory Services (EAS).

Supervisors are required to identify, document, and attempt to correct all employee job performance and / or work behavior problems using standard corrective action procedures outlined in either personnel policies or the Faculty and Exempt Employees' Codes. They should not diagnose alcoholism, drug dependency, or any other complex medical and / or behavioral problem(s). However, corrective efforts may include referral to professional treatment resources at any time during the process. Supervisors are encouraged to share information regarding professional treatment services with employees on a regular basis. Pamphlets describing services are available from the Wildcat Wellness Center director or the CWU Human Resources department. See Addendum C for a description of professional drug treatment and counseling resources.

## ON-CAMPUS RESOURCES

Wildcat Wellness Center. . . . . . . 509-963-3213
Student Health and Counseling
Services . . . . . . . . . . . . . . . . . . . 509-963-1391
Community Psychological
Services Center . . . . . . . . . . . . 509-963-2501

## OFF-CAMPUS RESOURCES

Alcohol Drug Dependency
Services.
. 509-925-9821
Central Washington
Comprehensive Mental Health 509-925-9861
Kittitas Valley Recovery
Services. . . . . . . . . . . . . . . . . . . 509-925-7227
Washington State Employee
Service. . . . . . . . . . . . . . . . . . . . . 509-456-5000

## APPENDIX G

## Central Washington University Student Sexual Assault Response Policy

Central Washington University affirms respect, responsibility, and caring among all persons within the community. Central Washington University will not tolerate sexual assault or sexual misconduct in any form. The university is committed to preventing all forms of sexual assault, and to providing accessible, responsive services for dealing with such offenses. Sexual assault on the part of any student is clearly inconsistent with Central Washington University values, and is considered a form of sexual harassment in violation of the University Student Rights and Responsibilities Policy, as well as a violation of state and federal law. Federal law requires specific policy and procedures to address sexually assaultive behavior on the part of students. Allegations of sexual assault by students should be addressed through this policy, administered by the Office of the Vice President for Student Affairs and Enrollment Management.
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[^0]:    (BIOL 360 or 420 or 464) - General Ecology

[^1]:    March 1 for fall quarter
    April 1 for summer quarter

