

1-1-2019

Central Washington University 2019-2020 Graduate Catalog

Central Washington University

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

Recommended Citation

Central Washington University, "Central Washington University 2019-2020 Graduate Catalog" (2019).
Course Catalogs. 182.

<https://digitalcommons.cwu.edu/catalogs/182>

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

2019-2020 Academic Year

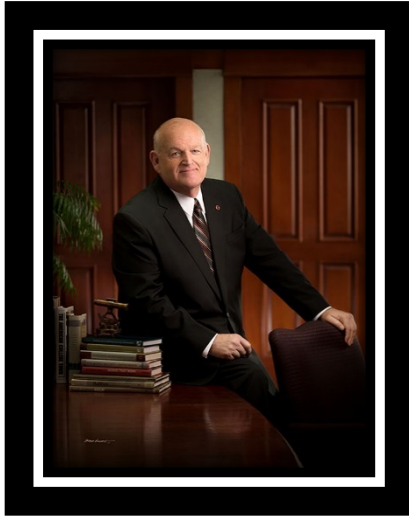
GRADUATE CATALOG



Table of Contents

Welcome to Central Washington University!	2
History, Mission, Vision and Core Values	3
Quarterly Calendars	5
Catalog Guidelines	9
Information Directory	10
University Centers	11
Tuition and Fees	13
Academic and General Regulations/Guidelines	18
Graduate Studies and Research	21
Master's Degree Guidelines	25
Academic Policies	29
College of Arts and Humanities	29
College of Business	30
College of Education and Professional Studies	31
College of the Sciences	32
Office of Continuing Education	33
Online Learning	35
Degrees Offered (Majors, Certificates)	37
Accounting Department	37
Anthropology and Museum Studies Department	39
Art and Design Department	39
Aviation Department	41
Biological Sciences Department	42
Chemistry Department	43
Communication Department	50
Computer Science Department	50
Cultural and Environmental Resource Management Program	52
Curriculum, Supervision, and Educational Leadership Department	54
Education, Development, Teaching and Learning Department	61
Engineering Technologies, Safety, and Construction Department	64
English Department	67
Family and Consumer Sciences Department	70
Geography Department	73
Geological Sciences Department	74
Health Sciences Department	77
History Department	81
Individual Studies Master Program	84
Information Technology and Administrative Management Department	90
International Studies and Programs	96
Law and Justice Department	98
Management Department	100
Mathematics Department	100
Music Department	101
Physical Education, School Health, and Movement Studies Department	107
Physics Department	109
Political Science Department	110
Primate Behavior and Ecology Program	111
Psychology Department	113
Science Education Department	119
Sociology Department	119
Theatre Arts Department	119
World Languages and Cultures Department	123
Course Descriptions	124

Welcome to Central Washington University!



Welcome is a word you'll hear a lot at Central Washington University. It's not only a greeting but a description of the environment we strive to have on our campus. We want you to feel that you belong here and this is a place where you can expand your knowledge and begin the journey of becoming who you want to be.

We try to help you achieve that goal with professors who know your name and want you to excel, experiential learning opportunities, and a wide variety of academic majors-in fact, more than 135. We provide you with an affordable education from top faculty who teach subjects you want to learn.

Research shows that students who become involved and engaged in co-curricular and extra-curricular activities are more likely to succeed. Getting involved in student media, clubs, organizations, club sports, musical productions, art shows, and other out-of-the-classroom experiences enrich students on many levels and can play a significant role in a student's overall holistic development.

One of the best things about Central's residential campus in Ellensburg is its location. The surrounding region offers a wide choice of recreational opportunities. CWU is only minutes away from beautiful mountains, great nature trails, the Yakima River, snow skiing, and more.

Additionally, Ellensburg itself might just be one of Washington state's most hidden jewels with his array of dining, shopping, and special events.

Central Washington University offers a variety of ways for you to learn. Students at one of our eight university centers or instructional sites can earn course credit and degrees that meet their individual needs while allowing them to remain close to home. We also provide a host of online classes and certifications. In fact, when it comes to online learning, few universities can compare to CWU. Several of our programs, including psychology, professional and creative writing, and information technology and administrative management, have been named among the nation's top online programs, and Central has consistently been designated one of the best value online school in the state of Washington.

By enrolling at Central, you have become a member of the Wildcat family. We are diverse and inclusive-CWU is the only Washington state university given the prestigious Higher Education Excellence in Diversity (HEED) award in four of the past five years-along with being friendly and welcoming. At Central, you will find a nurturing environment with a strong foundation in the principles of respect, support, and acceptance.

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

Sincerely,

James L. Gaudino
President

History, Mission, Vision and Core Values

History

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

Our success is based on creating a diverse, inclusive, and welcoming environment, providing the academic programs our students want, cultivating award-winning faculty, and offering an affordable education. Our focus on these values has helped make CWU one of the fastest growing public universities in the state of Washington.

Mission

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

Vision

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

Core Values

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

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

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

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

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

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

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

• **Safety:** CWU believes it has a responsibility to providing a working and learning environment that is both physically and emotionally safe. CWU believes this responsibility extends to the off-campus environment of its full-time, residential students.

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, ethnicity, color, creed, religion, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, genetic information, or status as protected veterans. The university administers an affirmative action program for employment purposes and complies with applicable federal, state, and local laws, regulations, and executive orders. Policy statements on affirmative action, gender equity, and sexual harassment, as well as discrimination complaint and resolution policy and procedures available at www.cwu.edu/resources-reports.

The person responsible for institutional compliance with most federal and state laws and institutional policies dealing with discrimination is Staci Sleigh-Layman, Executive Director, HR, and Title IX Coordinator, 509-963-1256 or hr@cwu.edu. She also serves as one of the university's ADA Compliance Officer and can be contacted for any questions or concerns related to disability-related laws and institutional policies, 509-963-1256 or hr@cwu.edu. Human Resources is located in Mitchell Hall, First Floor.

Accreditation

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

- [Applied and Natural Science Accreditation Commission of ABET](#)
- [Association to Advance Collegiate Schools of Business International \(AACSB\)](#)
- [American Council for Construction Education \(ACCE\)](#)
- [Accreditation Council for Education in Nutrition and Dietetics \(ACEND\)](#)
- [American Chemical Society \(Committee on Professional Training\)](#)
- [Commission on Accreditation of Allied Health Education Programs \(CAAHEP\)](#)
- [Council for Accreditation of Counseling and Related Educational Programs \(CACREP\)](#)
- [Engineering Technology Accreditation Commission of ABET](#)
- [National Association of Schools of Music \(NASM\)](#)

Quarterly Calendars

FALL 2019 UNIVERSITY ACADEMIC CALENDAR

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change.

If you have any questions, contact Registrar Services at 509-963-3001.

REGISTRATION AND CLASSES

April 22	Registration Assignment	Log into MyCWU to view enrollment appointment for web registration
April 22	Schedule Goes Live	View in MyCWU
April 22	Advising Begins	FALL 2019 advising
May 6-June 21	Registration	For continuing students (<i>During the assigned enrollment appointment</i>)
August 1	OPEN ENROLLMENT	Students may add/drop classes until change of schedule period ends.
September 11	Leave of Absence	Students not attending FALL quarter must submit request
September 19	Faculty Development Day	Before classes start
September 25	CLASSES BEGIN	First day of classes for FALL
Sept 27-Oct 7 until midnight	CWU Payment Plan - Open Enrollment Period	Students may split their quarter charges in three payments instead of one. A \$50 enrollment fee applies.
October 1	Change of Schedule Period Ends and Audit Deadline	<i>Add/Drop Classes-Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed. Deadline to declare audit grading basis.</i>
October 1	TUITION AND FEES DUE	Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date.
Oct. 2-Oct. 8	\$25 Late Registration Fee	Instructor signature required to enroll
October 8	\$50 Fee - Unpaid Tuition and Fees	A \$50 late fee will be assessed on unpaid tuition-and-course-fee balances. Student has 100 percent tuition liability.
Oct. 9-Nov. 5	\$50 Late Registration Fee	Instructor and Department Chair signatures required to enroll
October 24	\$100 Fee-Unpaid Tuition and Fees	A \$100 late fee will be assessed on unpaid tuition-and-course-fee balances. Student has 100 percent tuition liability.
Nov. 6-Dec. 6	\$75 Late Registration Fee	Instructor and Department Chair signatures required to enroll
November 8	Credit/No Credit	Deadline to declare credit/no credit
Nov. 12-Dec. 6	Registration for WINTER	See WINTER 2020 calendar
November 11	Veterans Day (Observed)	No classes/administrative offices closed
November 27-29	Thanksgiving and Native American Heritage Day Recess	No classes/administrative offices open November 27 No classes/administrative offices closed November 28-29
December 6	Course Challenge Form Deadline	Deadline to submit course challenge forms to Registrar Services
December 6	Classes End	Last day of class instruction
December 9	Study Day	Study Day
December 10-13	FINAL EXAMS	See exam schedule
December 13	End of Quarter	End of Quarter (last day of finals)
December 17	Grades Due	10:00 p.m. deadline for instructors to submit grades via MyCWU
54	Instructional Days per Quarter	Includes final exams and study days

WITHDRAWAL DEADLINES

GRADUATION DEADLINES

Oct. 24	Deadline for 50 percent refund with complete withdrawal	June 28	Deadline to apply for baccalaureate degree for FALL 2019
Nov. 8	Uncontested withdrawal period deadline	Sept. 25-Oct. 1	Master's degree final folder check for FALL needs to be requested during first week of classes
Dec. 6	Hardship withdrawal petition deadline	Oct. 4	Deadline to apply for baccalaureate degree for WINTER
Dec. 6	Complete university withdrawal	Dec. 2	Complete the final "Turnitin" check. All forms submitted and fees paid for FALL graduation for Thesis Option Students
		Dec. 13	Complete all master's degree requirements for FALL graduation

WINTER 2020 UNIVERSITY ACADEMIC CALENDAR

All deadlines are due by the close of business on that date. Information in this handbook may be subject to change.

If you have any questions, contact Registrar Services at 509-963-3001.

REGISTRATION AND CLASSES

October 28	Registration Assignment	Log into MyCWU to view enrollment appointment for web registration
October 28	Schedule Goes Live	View in MyCWU
October 28	Advising Begins	WINTER advising
Nov. 12- Dec. 6	Registration	For continuing students <i>(During the assigned enrollment appointment)</i>
December 16	OPEN ENROLLMENT	Students may add/drop classes until change of schedule period ends.
December 24	Leave of Absence	Students not attending WINTER quarter must submit request
January 7	CLASSES BEGIN	First day of classes for WINTER
Jan. 9-Jan. 19 until midnight	CWU Payment Plan - Open Enrollment Period	Students may split their quarter charges in three payments instead of one. A \$50 enrollment fee applies.
January 13	Change of Schedule Period Ends and Audit Deadline	Add/Drop Classes-Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed. Deadline to declare audit grading basis.
January 13	TUITION AND FEES DUE	Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date.
January 14-21	\$25 Late Registration Fee	Instructor signature required to enroll
January 20	Martin Luther King Jr. Holiday	No classes/administrative offices closed
January 21	\$50 Fee - Unpaid Tuition and Fees	A \$50 late fee will be assessed on unpaid tuition-and-course-fee balances. Student has 100 percent tuition liability.
Jan. 22-Feb. 19	\$50 Late Registration Fee	Instructor and Department Chair signatures required to enroll
February 5	\$100 Fee -Unpaid Tuition and Fees	A \$100 late fee will be assessed on unpaid tuition-and-course-fee balances. Student has 100 percent tuition liability.
February 17	Presidents Day	No classes/administrative offices closed
Feb. 18-Mar. 13	Registration for SPRING	See SPRING 2020 Calendar
Feb. 20-Mar. 13	\$75 Late Registration Fee	Instructor and Department Chair signatures required to enroll
February 21	Credit/No Credit	Deadline to declare credit/no credit
March 13	Course Challenge Form Deadline	Deadline to submit course challenge forms to Registrar Services
March 13	Classes End	Last day of class instruction
March 16	Study Day	Study Day
March 17-20	FINAL EXAMS	See exam schedule
March 20	End of Quarter	End of Quarter (last day of finals)
March 24	Grades Due	10:00 p.m. deadline for instructors to submit grades via MyCWU
52	Instructional Days per Quarter	Includes final exams and study days

WITHDRAWAL DEADLINES

GRADUATION DEADLINES

Feb. 5	Deadline for 50 percent refund with complete withdrawal	Oct. 4	Deadline to apply for baccalaureate degree for WINTER
Feb. 21	Uncontested withdrawal period deadline	Jan. 7-14	Master's degree final folder check for WINTER needs to be requested during first week of classes
March 13	Hardship withdrawal petition deadline	Jan. 17	Deadline to apply for baccalaureate degree for SPRING
March 13	Complete university withdrawal	March 13	Complete the final "Turnitin" check. All forms submitted and fees paid for WINTER graduation for Thesis Option Students
		March 20	Complete all master's degree requirements for WINTER graduation

SPRING 2020 UNIVERSITY ACADEMIC CALENDAR

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

REGISTRATION AND CLASSES

Feb. 3	Registration Assignment	Log into MyCWU to view enrollment appointment for web registration
Feb. 3	Schedule Goes Live	View in MyCWU
Feb. 3	Advising Begins	SPRING advising
Feb. 18-Mar. 13	Registration	For continuing students (<i>During the assigned enrollment appointment</i>)
March 17	Leave of Absence	Students not attending SPRING quarter must submit request
March 23	OPEN ENROLLMENT	Students may add/drop classes until change of schedule period ends.
March 31	CLASSES BEGIN	First day of classes for SPRING
Apr. 2-Apr. 12 until midnight	CWU Payment Plan - Open Enrollment Period	Students may split their quarter charges in three payments instead of one. A \$50 enrollment fee applies.
April 6	Change of Schedule Period Ends and Audit Deadline	Add/Drop Classes-Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed. Deadline to declare audit grading basis.
April 6	TUITION AND FEES DUE	Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date.
April 7-13	\$25 Late Registration Fee	Instructor signature required to enroll
April 13	\$50 Fee - Unpaid Tuition and Fees	A \$50 late fee will be assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability.
April 14-May 11	\$50 Late Registration Fee	Instructor and Department Chair signatures required to enroll
April 29	\$100 Fee -Unpaid Tuition and Fees	A \$100 late fee will be assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability.
May 4-June 24	Registration for SUMMER	See SUMMER 2020 Calendar (Schedule goes live April 20 th)
May 11- June 19	Registration for FALL	See FALL 2020 Calendar (Schedule goes live April 27 th)
May 12-June 5	\$75 Late Registration Fee	Instructor and Department Chair signatures required to enroll
May 15	Credit/No Credit	Deadline to declare credit/no credit
May 13-14	SOURCE Days	Instructional days - Research projects
May 25	Memorial Day	No classes/administrative offices closed
June 5	Course Challenge Form Deadline	Deadline to submit course challenge forms to Registrar Services
June 5	Classes End	Last day of class instruction
June 8	Study Day	Study Day
June 9-12	FINAL EXAMS	See exam schedule
June 12	End of Quarter	End of Quarter (last day of finals)
June 13	COMMENCEMENT	Commencement Ceremonies - Ellensburg
June 14	COMMENCEMENT	Commencement Ceremonies - Kent
June 16	Grades Due	10:00 p.m. deadline for instructors to submit grades via MyCWU
53	Instructional Days per Quarter	Includes final exams and study days

WITHDRAWAL DEADLINES

GRADUATION DEADLINES

April 29	Deadline for 50 percent refund with complete withdrawal	Jan. 17	Deadline to apply for baccalaureate degree for SPRING
May 15	Uncontested withdrawal period deadline	Mar. 31- Apr. 7	Master's degree final folder check for SPRING needs to be requested during first week of classes
June 5	Hardship withdrawal petition deadline	April 3	Deadline to apply for baccalaureate degree for SUMMER
June 5	Complete university withdrawal	May 29	Complete the final "Turnitin" check. All forms submitted and fees paid for SPRING graduation for Thesis Option Students
		June 12	Complete all master's degree requirements for SPRING graduation

SUMMER SESSION 2020 UNIVERSITY ACADEMIC CALENDAR

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

REGISTRATION AND CLASSES

April 20	Schedule Goes Live	View in MyCWU
April 20	Advising Begins	SUMMER advising
May 4-June 24	Registration	Summer Session
June 22	CLASSES BEGIN	Classes begin for six-week and full session
June 24	Change of Schedule Period Ends	Add/Drop Classes- <i>Drops completed prior to this date or by the close of business on this date will not appear on transcripts or have tuition assessed.</i>
June 24	TUITION AND FEES DUE	Check with the Cashiers Office or view your statement online for amount due. Student has 100 percent tuition liability if classes are not dropped by this date.
June 24- July 2 until midnight	CWU Payment Plan - Open Enrollment Period	Students may split their quarter charges in three payments instead of one. A \$50 enrollment fee applies.
June 25-July 1	\$25 Late Registration Fee Six-week Session	Instructor signature required to enroll
June 25-July 1	\$25 Late Registration Fee Full Session	Instructor signature required to enroll
July 2-17	\$50 Late Registration Fee Six-week Session	Instructor and Department Chair signatures required to enroll
July 2-30	\$50 Late Registration Fee Full Session	Instructor and Department Chair signatures required to enroll
July 3	Independence Day Holiday	No classes/administrative offices closed
July 6	\$50 Fee - Unpaid Tuition and Fees	\$50 fee will be assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability.
July 20-31	\$75 Late Registration Fee Six-week Session	Instructor and Department Chair signatures required to enroll
July 21	\$100 Fee -Unpaid Tuition and Fees	\$100 fee assessed on unpaid tuition and course fee balances. Student has 100 percent tuition liability.
July 31	Six-week Session Classes End	Last day of class instruction for six-week session
July 31-Aug. 21	\$75 Late Registration Fee Full Session	Instructor and Department Chair signatures required to enroll
August 4	Grades Due Six-week Session	10:00 p.m. deadline for instructors to submit grades via MyCWU
August 21	Full Session Classes End	Last day of class instruction for full session
August 25	Grades Due Full Session	10:00 p.m. deadline for instructors to submit grades via MyCWU

WITHDRAWAL DEADLINES

GRADUATION DEADLINES

July 17	Deadline for 50 percent refund with complete withdrawal	April 3	Deadline to apply for baccalaureate degree for SUMMER
July 17	Uncontested withdrawal period deadline	June 22-26	Master's degree final folder check for SUMMER needs to be requested during first week of classes
July 24	Hardship withdrawal petition deadline for six-week session	July 6	Deadline to apply for baccalaureate degree for FALL 2020
July 24	Complete university withdrawal for six-week session	Aug. 7	Complete the final "Turnitin" check. All forms submitted and fees paid for SUMMER graduation for Thesis Option Students
Aug. 14	Hardship withdrawal petition deadline for full session	Aug. 21	Complete all master's degree requirements for SUMMER graduation
Aug. 14	Complete university withdrawal for full session		

Catalog Guidelines

The university catalog is prepared by Registrar Services and the Public Affairs teams.

This catalog and its contents shall not constitute a contract between Central Washington University and prospective or enrolled students.

The information contained in this catalog reflects the current policies and regulations of the university. However, the university reserves the right to make changes in its policies and regulations at any time. Accordingly, if policies or regulations of the university at any time conflict with information contained in the catalog, the policies and regulations will govern, unless expressly determined otherwise by the CWU Board of Trustees.

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

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

Central Washington University's policies and practices affirm and actively promote the rights of all individuals to equal opportunity in education and employment without regard to their race, ethnicity, color, religion, creed, national origin, sex, sexual orientation, gender identity and gender expression, age, marital status, disability, genetic information, or status as protected veterans. CWU complies with all applicable federal, state, and local laws, regulations, and executive orders. Address inquiries to the Executive Director, HR, and Title IX Coordinator, Mitchell Hall, First Floor, Ellensburg, WA 98926-7425, 509-963-1256; hr@cwu.edu, www.cwu.edu/hr/equal-opportunity. Students with disabilities may request reasonable accommodation by contacting Disability Services: 509-963-2214; Hogue 126; DS@cwu.edu, www.cwu.edu/disability-support. Employees and visitors may request reasonable accommodation by contacting Human Resources; 509-963-1202; hr@cwu.edu.

Registrar Services
Bouillon Hall, room 140
Central Washington University
400 East University Way
Ellensburg, Washington 98926-7465
509-963-3001

www.cwu.edu/registrar

Information Directory

OFFICIAL ELECTRONIC CATALOG

www.cwu.edu/registrar/catalogs

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

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

LIMITATION OF LIABILITY

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

INFORMATION DIRECTORY

Academic Advising: Professional Advising (declared majors, University Centers, and Transfer Student Outreach), Bouillon Hall, room 205	(509) 963-3423
Academic Advising: First Year and Exploratory (for undecided students), Bouillon Hall, room 206	963-2722
Associated Students (ASCWU), Student Union and Recreation Center, 2nd Floor, room 236	963-1693
Career Services, Bouillon Hall, room 206	963-1921
Cashiers Office, Barge Hall, room 104	963-2224
Central Switchboard	963-1111
Catering Services, Tunstall Hall	963-1302
Conference Program, Munson Hall, Vantage room	963-1141
Continuing Education Office, 421 Main Street	963-1712
Disability Services, Hogue Hall, room 126	963-2214
Financial Aid, Bouillon Hall, room 106	963-1611
Graduate Studies and Research, Barge Hall, room 214	963-3101
High School Partnerships, Hebel Hall, room 122	963-1351
International Studies and Programs, International Center	963-3612
James E. Brooks Library	963-1021
Office of Admissions, Barge Hall, room 204	963-1211
President's Office, Barge Hall, room 314	963-2111
Provost, Barge Hall, room 302	963-1400
Registrar Services, Bouillon Hall, room 140	963-3001
Student Employment	
• I-9 and W'4, Mitchell Hall, first floor	963-1202
• Regular Student Employment (non-work study) (Human Resources), Mitchell Hall, first floor	963-1202
• Work Study (Student Financial Services/Financial Aid), Barge Hall, room 115	963-1611
Student Financial Services, Bouillon Hall, room 106	963-3546
Student Counseling Clinic, corner of 11th and Poplar, near Meisner Hall	963-1391
Student Medical Clinic, corner of 11th and Poplar, near Meisner Hall	963-1881
Student Success, Bouillon Hall, room 204	963-1515
Transcript Line	963-3047
University Housing and New Student Programs, Button Hall, 2nd Floor	963-1831
University Public Safety, Public Safety Building, 1211 N. Wildcat Way	963-2667
University Police Services, Public Safety Building, 1211 N. Wildcat Way	963-2959
Veterans Center, Bouillon Hall, room 214	963-3028

AVAILABILITY OF SAFETY AWARENESS INFORMATION

University Police and Public Safety is responsible for reporting crime statistics in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Central's annual security report is available at www.cwu.edu/police/sites/cts.cwu.edu.police/files/documents/2016-asr.pdf. It contains information regarding crime prevention programs, the law enforcement authority of the University police, policies concerning the reporting of crime, crime statistics for the most recent three-year period and other information about security that is required by law. A paper copy of the information is also available upon request by writing to: Central Washington University, University Police and Public Safety, 400 East University Way, Ellensburg, WA 98926-7527.

University Centers

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

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

UNIVERSITY CENTER POLICIES

Admission

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

Registration

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

Advising

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

Tuition

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

Student Services

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

Financial Aid

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

Veterans

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

Library

Access to library services is available to students and faculty at

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

Textbooks

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

Final Exam Schedule

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

Office Hours and Parking

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

CWU-Des Moines

At Highline Community College
Higher Education Center, Building 29
2400 South 240th Street
P. O. Box 13490
Des Moines, WA 98198
206-439-3800

Degree Programs:

- BS Accounting
- BS Business Administration
 - Specializations in:
 - Finance
 - Leadership and Management
 - Marketing Management
 - Supply Chain Management
- BAEd Early Childhood Education/Elementary Education
- BAEd Early Childhood Education/Middle-Level Math
- BAEd Early Childhood Education/TESL
- BS Electronics Engineering Technology
- BAS Information Technology and Administrative Management
 - Specializations in:
 - Administrative Management
 - Cybersecurity
- BS Interdisciplinary Studies - Social Sciences
- BA Law and Justice
- BA Psychology
- MS Law and Justice

Additional Certifications:

- Principal Certification
- Sports Business
- Supply Chain Management Certificate

CWU-Sammamish

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

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

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

Degree Programs:

- BA Law and Justice
- BAS Information Technology and Administrative Management
- BAS Supply Chain Management
- BS Accounting
- BS Business Administration
 - Specializations in:
 - Finance
 - Leadership and Management
 - Marketing Management
 - Supply Chain Management
- BS Interdisciplinary Studies - Social Sciences

Minors:

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

Other:

- Supply Chain Management Certificate

CWU-Joint Base Lewis McChord

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

Degree Programs:

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

Other:

- Supply Chain Management Certificate

CWU-Moses Lake

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

Degree Programs:

- BS Interdisciplinary Studies-Social Sciences

CWU-Pierce County

At Pierce College, Ft. Steilacoom
Olympic 330

9401 Farwest Dr.
Lakewood, WA 98498
253-964-6636

Degree Programs:

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

Specializations in:

- Administrative Management
- Cybersecurity
- Information Technology (Hybrid)
- BS Information Technology and Administrative Management
 - Specializations in:
 - Administrative Management
 - Cybersecurity
 - Information Technology (Hybrid)
 - Retail Management and Technology
- BS Social Services

Minors:

- Law and Justice
- Psychology
- Social Services
- Sociology

CWU-Wenatchee

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

Degree Programs:

- BAEd Elementary Education
- BS Interdisciplinary Studies-Social Sciences

CWU-Yakima

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

Degree Programs:

- BAEd Elementary Education
- BS Interdisciplinary Studies - Social Sciences

Tuition and Fees

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

Tuition rates for 2019-2020 are not available at this time.

Undergraduate and post-baccalaureate students registering for 10-18 credits:

Quarterly tuition fees for residents of the state of Washington \$2,056.50

Quarterly tuition fees for nonresidents of the state of Washington \$7,050.20

Undergraduate and post-baccalaureate students registering for nine credits or less:

Resident: Each credit, \$205.65

Minimum of \$411.30

Nonresident: Each credit, \$705.02

Minimum of \$1,410.04

Graduate (Master's Degree) students registering for 10-18 credits:

Resident graduate: \$3,071.20

Nonresident graduate: \$7,194.20

Graduate (Master's Degree) students registering for nine credits or less:

Resident graduate: Each credit, \$307.12

Minimum of \$614.24

Nonresident graduate: Each credit, \$719.42

Minimum of \$1438.84

Students registering for more than 18 credits:

Undergraduate and post-baccalaureate,

Resident: Each credit over 18, \$205.65

Nonresident: Each credit over 18, \$705.02

Resident graduate: Each credit over 18, \$307.12

Nonresident graduate: Each credit over 18, \$719.42

Continuing Education Tuition Fees

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

Resident and Non-Resident Status

Washington State law concerning resident classification for tuition and fee purposes, RCW 28B.15.012 et seq., requires that a student "(a)(i) have established a bona fide domicile in the state of Washington, primarily for purposes other than educational, for at least one year immediately prior to the beginning of the quarter for which he or she registers at the university, and (ii) be financially independent, or (b) be a dependent student, one or both of whose parents or legal guardians have maintained a bona fide domicile in the state of Washington for at least one year prior to the beginning of the quarter for which the student registers at the university." The term "domicile" denotes a person's true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain, and to which he or she expects to return when

he or she leaves without intending to establish a new domicile elsewhere.

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

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

Resident Tuition for Veterans and Eligible Individuals

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

A "covered individual" is defined in the Choice Act as:

1. A Veteran who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three (3) years of discharge from a period of active duty service of 90 days or more.
2. A spouse or child using transferred benefits who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three (3) years of the transferor's discharge from a period of active duty service of 90 days or more.
3. A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residency) and enrolls in the school within three (3) years of the service member's death in the line of duty following a period of active duty service of 90 days or more.

The Choice Act does not apply to active duty service members or dependents of active duty service members.

Eligibility Requirements

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

1. Separated from the uniformed services with any period of honorable service after at least ninety (90)

days of active duty service. Must provide DD-214 to show separation date.

Uniformed services include: Army, Navy, Marine Corps, Air Force, Coast Guard, US Public Health Service Commissioned Corps, and the National Oceanic and Atmospheric Administration Commissioned Officer Corps.

1. Lives in Washington and enters a Washington higher education institution within three (3) years of discharge from a period of active duty service.

Enters is defined as the first day of the quarter prior to the end of the third year of discharge.

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

Procedure:

1. Request for Veterans Center to send supporting documents to Registrar's Office.
2. Contact Registrar's Office to complete additional paperwork reg@cwu.edu 509-963-3001.

Out-of-State Applicants

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

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

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

Senior Citizens

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

Veterans Conflict Grant

Not available summer quarter.

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

1. Admission to CWU.

2. DD-214 Member 4 copy showing Honorable Discharge (all grants are awarded on information that that Department of Defense (DOD) codes on each DD-214).
3. Veteran must be a Washington State Resident.
4. Veteran must complete the FAFSA-Financial Aid Application each year.
5. Minimum enrollment must be halftime (6 credits)
6. **The Veteran of Foreign Conflict Waiver/Central Grant can be received for up to 225 quarter credits.**

This grant replaces all other military conflict waivers awarded in the past by CWU. For further information, contact the Veterans Center at 509-963-3028 or e-mail va@cwu.edu or check the website at: www.cwu.edu/veterans.

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

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

- Child and spouse of an eligible veteran or National Guard member who became totally disabled;
- Child and spouse of an eligible veteran or National Guard member determined to be a prisoner of war or missing in action;
- Child and spouse of an eligible veteran or National Guard member who lost his or her life;
- The Washington State Disabled Veteran Dependent Tuition Waiver can be received up to 200 quarter credits or in the case of the child, until they turn 27 years old.
- Child is defined as a biological child, adopted child, or stepchild.
- Subject to amounts appropriated, student shall also receive a stipend for textbooks and course materials in the amount of five hundred dollars per academic year, to be divided equally among academic terms and prorated for part-time enrollment.

For more information, contact the Veterans Center at 509-963-3028 or e-mail va@cwu.edu, or check the website at www.cwu.edu/veterans.

Washington State Employee Tuition Waiver

Educating the citizens of Washington State is integral to Central Washington University's mission. CWU encourages and supports its employees, as well as non-CWU state employees and others as allowed by law, to continue their education as prescribed through this educational benefits policy. Central Washington University provides educational benefits for Central Washington University faculty, exempt, and classified staff, non-CWU state employees, members of the Washington National Guard, and veterans (as defined by 41.04.005 RCW) who are not eligible for educational benefits from the Veteran's Administration. Eligible employees (CWU and state) must hold appointment to a half-time or more position. In addition, civil service employees must have permanent status (i.e., passed their probationary period). Faculty and exempt employees who are employed half time or more and are expected to be employed for

more than six months are eligible on the first day of employment. Eligible CWU employees may take up to eight (8) credit hours of course work per quarter. Washington National Guard, veterans, and non-CWU state employees may take up to six (6) credit hours of course work per quarter. Faculty who are hired on a quarter-to-quarter basis will become eligible beginning with the second consecutive quarter of half-time or more employment. For the purposes of this section, employment of faculty in spring quarter and the following fall quarter may constitute consecutive employment.

Employees who are not eligible for the tuition and fee waiver are: faculty on courtesy appointments; retired faculty, staff, and exempt personnel; and undergraduate and graduate assistants, associates, or others holding positions with student status. Employees must meet university admission requirements and file proof of eligibility with the Office of the Registrar no less than 15 working days prior to the beginning of each academic term may take up to eight credit hours of coursework for a nominal fee each quarter (summer excluded). Enrollment is subject to space availability only. Enrollment in a closed or wait-listed course under this waiver is prohibited. A waiver processing fee and course fees may apply. Refer to CWU academic policy: www.cwu.edu/resources-reports/cwup-2-20-090-waiver-tuition-and-fees for further information.

Tuition Refund Schedule

A continuing student will receive a 100 percent refund of tuition and fees if a complete withdrawal from the university occurs prior to the sixth day of the quarter.

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

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

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

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

Miscellaneous Fee Schedule

Fees are subject to change for the 2019-2020 academic year.

Application for Admission Fee: \$50.

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

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

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

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

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

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

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

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

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

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

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

Library Fee: \$10, mandatory fee per quarter for all students.

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

Math and Writing Tutoring Fee: \$5.00, mandatory fee per quarter for all students.

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

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

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

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

Student Medical and Counseling Clinic Fee: \$102.96, mandatory fee per quarter for all Ellensburg campus-based students enrolled for six credits or more. Students can see a physician for free regardless of insurance status. Students only pay for testing costs. In order to get this fee waived students must live outside of town or be a CWU employee or staff member.

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

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

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

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

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

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

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

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

Financial Obligation

Central Washington University Student Financial Responsibility Agreement

1. PAYMENT OF FEES/PROMISE TO PAY

I understand that when I register for any class at Central Washington University ("CWU") or receive any service from CWU, I accept full responsibility to pay all tuition, fees and other associated costs assessed as a result of my registration and/or receipt of services.

I further understand and agree that any amounts charged to my CWU Student Account that are not paid by the due date shall constitute a student educational debt under § 523(a)(8) of the U.S. Bankruptcy Code that I am obligated to repay. Any overpayment of financial aid or other educational benefit that I receive for any period when I am not enrolled at CWU shall also constitute a student educational debt that I am obligated to repay. All such student debt shall also include any late fees, finance charges, and collection fees and costs as more fully described below in Section 2, "Delinquent Account/Collection."

I understand and agree that if I drop or withdraw from some or all of the classes for which I register, I will be responsible for paying all or a portion of tuition and fees in accordance with the published tuition refund schedule on the Registrar's Office website <http://www.cwu.edu/registrar/tuition-and-mandatory-fees>. I have read the terms and conditions of the published tuition refund schedule and understand those terms are incorporated herein by reference.

I further understand that it is my responsibility to monitor my student account activity via MyCWU online (<https://my.cwu.edu/>) and pay the charges/fees by the published due dates. My failure to pay or not receive a bill does not absolve me of my financial responsibility as described above.

Withdrawal

If I decide to completely withdraw from CWU, I will follow the instructions at <http://www.cwu.edu/registrar/>, which I understand and agree are incorporated herein by reference.

2. DELINQUENT ACCOUNT/COLLECTION

Financial Hold: I understand and agree that if I fail to pay my student account bill or any monies due and owing CWU by the scheduled due date, CWU will place a financial hold on my student account, preventing me from registering for future classes, requesting official transcripts, or receiving my diploma.

Late Payment Charge

I understand and agree that if I fail to pay my student account bill or any monies due and owing CWU by the scheduled due dates, then CWU will assess a finance charge at the rate of 1% per month on the past due portion of my student account until my past due account is paid in full. The 1% finance charge is in addition to tuition and housing late payment fees. See <http://www.cwu.edu/registrar/late-fees> for tuition due dates and <http://www.cwu.edu/housing/> for housing due dates.

Collection Agency Fees

I understand and accept that if I fail to pay my student account bill or any monies due and owing CWU by the scheduled due date, and fail to make acceptable payment arrangements to bring my account current, CWU may refer my delinquent account to a collection agency.

I further understand that I am responsible for paying the collection agency fee, which may be based on a percentage at a

maximum of 35% of the amounts collected for first collection efforts (and up to 40% for subsequent collection efforts), together with all costs and expenses, including reasonable attorney's fees, relating to the collection of my delinquent account. Finally, I understand that my delinquent account may be reported to one or more of the national credit bureaus.

modified or affected by any course of dealing or course of performance. This agreement may be modified by CWU if the modification is signed by me. Any modification is specifically limited to those policies and/or terms addressed in the modification.

3. COMMUNICATION

Method of Communication

I understand that CWU uses e-mail as an official method of communication with me, and that therefore I am responsible for reading the e-mails I receive from CWU on a timely basis. If I want to receive paper communications then I need to submit the request to StudentAccounts@cwu.edu.

Method of Billing

I understand that CWU uses electronic billing (e-bill) as its official billing method, and therefore I am responsible for viewing and paying my student account e-bill by the scheduled due date. I further understand that failure to review my e-bill does not constitute a valid reason for not paying my bill on time. E-bill information is available at <https://my.cwu.edu/>. If I want to receive paper billings then I need to submit the request to StudentAccounts@cwu.edu.

I understand that administrative, clerical or technical billing errors do not absolve me of my financial responsibility to pay the correct amount of tuition, fees and other associated financial obligations assessed as a result of my registration at CWU.

Contact

I authorize CWU and its agents and contractors to contact me at my current and any future cellular phone number(s), email address(s) or wireless device(s) regarding my delinquent student account(s)/loan(s), any other debt I owe to CWU, or to receive general information from CWU.

I authorize CWU and its agents and contractors to use automated telephone dialing equipment, artificial or pre-recorded voice or text messages, and personal calls and emails, in their efforts to contact me.

Furthermore, I understand that I may withdraw my consent to call my cellular phone by submitting my request in writing to CWU or in writing to the applicable contractor or agent contacting me on behalf of CWU.

Updating Contact Information

I understand and agree that I am responsible for keeping CWU records up to date with my current mailing addresses, email addresses, and phone numbers by following the procedure at the Registrar's Office website <http://catalog.acalog.cwu.edu/content.php?catoid=48&navoid=2639>. The linked procedure is incorporated herein by reference. Upon leaving CWU for any reason, it is my responsibility to provide CWU with updated contact information for purposes of continued communication regarding any amounts that remain due and owing to CWU.

4. ENTIRE AGREEMENT

This agreement supersedes all prior understandings, representations, negotiations and correspondence between the student and CWU, constitutes the entire agreement between the parties with respect to the matters described, and shall not be

Academic and General Regulations/Guidelines

Registration

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

Registration for new or readmitted students can register during the open enrollment period. Students may change their schedule during the designated change of schedule period. Students are encouraged to use the MyCWU web registration system to complete all registration transactions.

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

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

Academic Credit

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

Student Study Load

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

Seniors in Graduate Courses

Seniors may enroll in graduate courses with the permission of the instructor and the department chair. Credit earned by seniors may meet either undergraduate or graduate program requirements, but not both. If the credit earned by a senior is to be applied to a graduate program, approval must be obtained from the dean of graduate studies and research.

Auditing a Course

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

audited courses. Course participation requirements are set by the faculty member responsible for the course.

Concurrent Enrollment

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

University Catalog

The Official Electronic Catalog (OEC) is the university's compilation for all curriculum. Graduate catalogs are valid for five years, and may be found at www.cwu.edu.

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

Leave of Absence

Graduate students need to contact the Graduate Studies office at 509-963-3101 for leave of absence information.

Withdrawal from a Course

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

Peremptory withdrawals will be noted on the student's transcript with "+W." Class rosters will reflect the +W for students who have used their peremptory withdrawal.

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

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

Withdrawal from the University

A student may withdraw from the university for reasons of

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

Military Exigency Withdrawal

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

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

Grading Policies and Regulations

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

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

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

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

All grades are frozen upon award of degree.

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

Incomplete Grade

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

If the work is not completed within one (1) calendar year from

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

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

In-progress Grade

For graduate students, "IP" is used for thesis, and project study, that normally extend beyond a single term. All uses of the "IP" grade must be submitted to and approved by the registrar. A letter grade is issued when the appropriate course is completed.

Grade Point Average

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

Credit/No Credit Option

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

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

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

Statute of Limitation on Grade Changes

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

Grade Reports

A report of the final grades assigned in courses will be available at www.cwu.edu/registrar/request-transcripts on MyCWU at the end of each quarter. Students may request a hard copy at getmytranscript.com.

Grade Appeal Procedure

Students who believe they have been improperly graded should first attempt to resolve the matter with the instructor. If resolution is not achieved, the student may appeal the grievance to the department chair. Failing resolution at that level, the grievance may be submitted to the college dean. Finally, if the grievance is not resolved at the dean level, the student may

petition for a hearing with the board of academic appeals. For details, contact the Office of Student Success in Bouillon Hall, room 204 or by calling 509-963-1515.

Repetition of Courses

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

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

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

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

Class Attendance and Participation

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

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

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

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

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 (3) 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).

Course Challenge (Credit by Examination)

Under certain circumstances, the university may award credit or waive requirements based on course challenges or prior learning experience. Matriculated students enrolled on a full-time basis may challenge any course which appears on the current course challenge list. Graduate students who have been admitted to a graduate program must obtain permission from the dean of Graduate Studies and Research, their advisor and the course instructor to challenge it. The following rules apply:

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

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

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

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

The application to challenge a course will be denied if credit for the course has been received previously at this or another college, the course was previously failed, the student previously withdrew from the course, the course was previously unsatisfactorily challenged, audited or if registration was canceled.

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

Please refer to the Undergraduate Catalog for the Course Challenge List

Course Substitutions

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

Academic Appeal

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

English Proficiency

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

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

Graduate Studies and Research

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

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

Administration and Organization

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

Dean

Kevin Archer, PhD

Director of Research and Sponsored Programs

Ruth Jefferies

Program Coordinator

Lynn Niemi

Communications Consultant

Justine Eason

Program Support Supervisor

Dawn Anderson

Fiscal Specialist / Graduate Assistantship Coordinator

Diane Houser

Grant and Contract Specialist, Research and Sponsored Programs

Program Coordinator, Institutional Animal Care and Use Committee

Leslie Lotspeich

Human Protections Administrator (HPA)

Sandy Martinez

Program Assistant

Lila Harper

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

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

General Information

The graduate experience at CWU is challenging, rewarding, and exciting. Like every quality experience, it is subject to certain rules and policies to ensure high academic standards. It is the responsibility of graduate students to familiarize themselves with these and the policies of the programs in which they are enrolled. Central believes in equal educational and employment opportunity for all without regard to race; color; creed; national origin; gender; age; marital status; or any sensory, physical, or mental handicap.

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

Definition of a Graduate Student

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

Application and Admission to Graduate Study

Central Washington University offers the following graduate degrees:

Education Specialist

- School Psychology

Master of Arts

- English: Literature
- English: Professional and Creative Writing
- English: TESOL
- History
- Theatre

Master of Education

- Higher Education
- Literacy
- Master Teacher
- School Administration

Master of Fine Arts

Master of Music

Master of Science

- Athletic Administration
- Biology
- Chemistry
- Computational Science
- Cultural and Environmental Resource Management
- Experimental Psychology
- Family and Child Life
- Family and Consumer Sciences, Career and Technical Education
- Geological Sciences

- Health and Physical Education
- Information Technology and Administrative Management
- Integrative Human Physiology
- Law and Justice
- Mental Health Counseling
- Nutrition
- Primate Behavior
- Public Health

Graduate Certificate

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

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

Admissions Information

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

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

Types of Admission

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

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

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

Conditional: An applicant may also be conditionally admitted to master's programs when he or she does not fully meet admission requirements. Typically, such admittees lack certain field-related experiences and/or required background knowledge. An applicant may also be admitted to this category pending receipt of the official transcript(s) indicating completion of the bachelor's degree. A conditionally admitted student will achieve regular status when the condition has been satisfied and the admitting department recommends advancement to regular status.

Applying to CWU

CWU welcomes applications from all those who meet our minimum requirements for admission. To apply, visit www.cwu.edu and click on the apply now link or obtain a set of our application materials from:

CWU School of Graduate Studies and Research
400 East University Way
Ellensburg, Washington 98926-7510

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

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 \$75 payable at the time of filing application.

International Applicant

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

1. If the applicant's native language is not English, he or she is required to demonstrate proof of English proficiency by one of the following:

A. Submit a standardized test score

- a) a minimum Test of English as a Foreign Language (TOEFL) iBT, score of 79 (scores should be no more than two years old at the time of application)
- b) a minimum International English Language Testing Systems (IELTS) academic score of 6.5 (scores should be no more than two years old at the time of application)

Please note that the Department of English requires a TOEFL iBT score of 88 or an IELTS academic score of 6.5.

B. Submit U.S. Baccalaureate degree transcripts

Submit transcripts from a baccalaureate degree from an accredited U.S. university or an accredited international university where the main language of instruction is English.

C. Complete the UESL Graduate Preparation Bridge Program

International applicants may seek conditional admission by completing and submitting all required admissions documents listed above with the exception of the English language test.

Applicants choosing to seek this conditional admission must complete in addition to the application to the Graduate School. Before applying to the Graduate School and the UESL program, please check with the specific academic department to make sure they offer conditional admission for their program(s).

If admitted, in order to remain a graduate student, you must successfully complete the UESL's Graduate Preparation Bridge Program (link will be available soon)

For direct admission into the Graduate Preparation Bridge Program, applicants are required to submit:

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

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

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

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

Conditionally admitted students must also successfully complete their next quarter within their graduate program receiving a 3.0 or above GPA. Failure to achieve the necessary grade point average, will result in being dropped from the University due to poor scholarship.

Please note: 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

2. International applicants are also required to complete a confidential financial statement and submit evidence that sufficient funding is available in U.S. currency through personal resources and/or a sponsor for one academic year's experience at CWU.

3. Foreign university transcripts must be official and accompanied by a degree certificate. Copies will not be accepted. A CWU International Credential Evaluator will review and evaluate your transcript and certificate. If he/she is unable to verify your degree you may be requested to supply an evaluation from a CWU approved agency. Further information regarding the evaluation and agencies that are accepted by CWU at www.cwu.edu/masters/prospective-international-students.

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

Application Deadlines

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

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

Deferred Admission

If a department and the SGSR wish to admit an applicant to a program that has no space available for a particular quarter, a deferred admission may be offered. The quarter for which admission is deferred will be negotiated between the applicant and the department. If both agree, the applicant will be asked to accept or decline in writing the deferred admission, which will be valid for up to one year from the term in which the person was to have matriculated. If the applicant agrees to defer admission, no new application or application fee will be required.

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

Application for Graduate Certificates

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

Funding Opportunities

Assistantships

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

Applicants must:

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

The priority deadline for assistantship application is February 1.

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

Fellowships

Nonresident 50% Tuition Waiver Graduate Fellowships

SGSR offers a limited number of Nonresident 50% Tuition Waiver Graduate Fellowships each academic year. The fellowships are open to WA state nonresidents, and are awarded to exceptional graduate students who show promise in scholarship, academics, leadership or meritorious service. Fellowships are also available for students with diversity experiences that contribute significantly to the quality of CWU's graduate programs. The fellowships typically include a 50% non-resident tuition waiver for the 9-month academic term. There is no stipend provided. Fellowships are only awarded to full-time students who have been admitted into a CWU graduate program. Preference is given to newly admitted candidates; however, fellowships are renewable for an additional year at the level and type originally funded. Students must remain at full-time status to continue receiving the waiver and maintain a 3.0 GPA, 3.25 GPA for Academic Merit fellowships. Awards are withdrawn if a student attains WA state resident status during the award period. A student must be nominated by the degree program's head before consideration by the SGSR.

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

The Graduate Student Research Support Award provides up to \$1,000 for expenses for students to conduct research related to their thesis or creative activity.

The Travel Award program makes available to graduate students up to \$400 to travel to a conference or meeting at which they are presenting research or a creative activity.

A student must apply for each fellowship in conjunction with their committee chair. Find more info on the SGSR website.

Scholarships

Scholarships exclusive to graduate students:

CWURA Graduate Student Scholarship- This competitive scholarship is offered to provide \$1,000 to one student per year who holds an earned bachelor's degree from Central Washington University and who is admitted to or currently enrolled in a master's degree program as a full-time student at Central Washington University for the purpose of defraying all or part of the student's unmet financial need as determined by the Office of Financial Aid.

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

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

Additional Financial Aid

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

Master's Degree Guidelines

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

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

Graduate-Level Credit

Graduate-level credit is given for all courses at CWU numbered at the 501 level and above. However, courses which are specifically numbered 500 are reserved for professional

development courses and cannot be counted toward a master's degree.

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

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 higher and must have been completed no more than six years before the date of the student's master's degree program completion. Credit hours only, not grades, may be transferred. The cumulative grade point average is computed for grades earned as a master's student at CWU.

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

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

Course Challenge (Credit by Examination)

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

Credit/No Credit

Graduate students may take advantage of the credit/no credit option as a way to explore academic areas in which they are interested. Credit/no credit courses will not be counted toward master's degrees nor will they be computed in the graduate grade point average. Students are allowed to select one class per quarter for a credit/-no-credit grade. A student electing this option must designate a class as credit/no credit during registration or during change of schedule period. The credit/no credit option is distinct from courses graded on a satisfactory/unsatisfactory (S or U) basis (see S or U grading).

Credits from Extension, Workshops and Correspondence Activity

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

Academic Policies and Guidelines

Scholastic Standards

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

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

Student Study Load

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

Maximum Time Limit to Degree Completion

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

from other institutions.

Master's degree students are expected to complete all requirements for the master's degree within six years from the date of first enrollment. Students seeking to interrupt their studies may do so with the approval of the chair or graduate coordinator of the home department, but must pay a non-refundable fee for registration as an on-leave student. This fee covers four successive academic quarters beginning with fall quarter. While on leave, graduate students retain library privileges. If a degree program is not completed during the six-year period from the quarter for which a student was admitted, the student must reapply to the university. If readmitted, only those credits graded B or higher and completed no more than six years from the date of the student's program completion may be counted toward the degree.

Continuous Registration

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

Graduate Committee

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

The Graduate Faculty

The graduate faculty are professors, teachers and mentors, as well as active researchers and artists. They blend instructional and research activities and in so doing afford our graduate students the benefit of state-of-the-art research and creative experience with personalized instruction.

Only a regular member of the graduate faculty may serve as chair of a graduate committee. Under unusual circumstances, and with the written recommendation of a graduate student's home department or program and the approval of the dean of the SGSR, an associate member of the graduate faculty may serve as co-chair of a student's graduate committee. The associate member will serve as co-chair along with a regular member of the graduate faculty. The minimum number of members needed

for a graduate committee will remain at three. Please check with faculty members concerning their graduate faculty status before forming your committee.

Course of Study

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

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

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

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

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

Certificate Course of Study

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

The program of study leading to a graduate certificate must satisfy the following conditions:

1. The total credit requirement cannot exceed half of the total number of credits required by the most closely related master's degree program offered by the University;
2. The following courses cannot be applied to a certificate: 500, 595, 598, 689, and 700.
3. Any course applied to a previously earned degree of any type at any institution cannot be applied to meet the credit requirements of a graduate certificate program.
4. At least two thirds of the total credit requirement must be earned at Central Washington University.
5. Only one 400 level course can be included in the certificate program. The student must earn a B or above in this course in order for it to count towards the student's course of study.
6. A student may be co-enrolled in two certificate programs if approved by the Program Coordinator(s) and department Chair(s).
7. If approved by the Program Coordinator, department Chair, and Dean of SGSR, all credits earned with a grade of B or above in a CWU graduate certificate program may be used towards a master's degree program.
8. The student cannot apply CWU certificate credits into an Individual Studies Master's program.
9. All requirements for a graduate certificate (including courses completed at another college or university) must be started and completed within three years. If the student continues on to a master's program, students are expected to complete all requirements for the master's degree within six years from the date of first enrollment.
10. Individual Studies certificates are prohibited.
11. Any divergence by the certificate curriculum from these requirements must be approved by the dean of SGSR.

Individual Studies Programs

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

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

Credits Required

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

Some departments restrict the number of credits below the 500 level. Please consult the departmental listings in this catalog for specific additional credit level requirements.

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

Culminating Experience

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

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

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

Thesis Option

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

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

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

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

Please see individual program requirements for specific project/portfolio review guidelines and information.

Comprehensive Exam

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

Research with Human Subjects

Institutional Review Board Approval

Central is concerned that no research conducted at this

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

Research with Animal Subjects

Animal Care and Use Approval

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

Completing Degree Requirements

Final Folder Evaluation

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

Final Examination

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

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

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

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

Final Quarter Enrollment Requirement

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

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

Advancement to Candidacy

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

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

Second Master's Degrees

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

Graduation

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

Commencement

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

Academic Policies

- Resources and Reports (home of the Policies and Procedures)
- Academic Appeal Procedures CWUP 5-90-010(3)
- Alcohol and Drug Policy CWUP 2-40-030
- Discrimination Complaint and Resolution Policy CWUP 2-35-070
- Equal Opportunity Policies and Programs CWUP 2-35
- Family Educational Rights and Privacy Act (FERPA) CWUP 2-20-070
- Reasonable Accommodation of Persons with Disabilities - Students CWUP 2-35-040
- Students Rights and Responsibilities Policy WAC Title 106
- Student Sexual Assault Response Policy CWUP 8-40-050

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

College of Arts and Humanities

Administration and Organization

Dean

Jill Hernandez, PhD (Hebeler Hall, room 202)

Interim Associate Dean

Scott Robinson, MFA (Hebeler Hall, room 202)

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

Overview

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

admission to the college, but some departments have requirements that are described under the respective department and program headings in the catalog.

Mission

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

Vision

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

Graduate Degree Programs:

Art (MFA)

Specializations: Ceramics, Computer Art, Jewelry and Metal Smithing, Painting and Drawing, Photography, Sculpture
Contact: Professor Rachel Kirk; Rachel.Kirk@cwu.edu, (509) 963-2665

English (MA)

Specializations: Literature, TESOL and Professional and Creative Writing
Contact: Dr. Chris Schedler; Christopher.Schedler@cwu.edu, (509)963-1357 (Literature); Dr. Katharine Whitcomb; Katharine.Whitcomb@cwu.edu, (509)963-1530 (Prof. and Creative Writing); Dr. Charles Li; Charles.Li@cwu.edu, (509)963-1598 (TESOL)

History (MA)

Specializations: Department list of 30+ fields of study
Contact: Dr. Jason Knirck; Jason.Knirck@cwu.edu., (509)963-2422

Music (MM)

Specializations: Composition, Conducting, Performance, Pedagogy, Music Education
Contact: Dr. Bret Smith; Bret.Smith@cwu.edu, (509)963-1548

Theatre Arts (MA)

Specialization: Theatre Production and Theatre Studies
Contact: Professor Christina Barrigan; Christina.Barrigan@cwu.edu, (509)963-3292

College of Business

Administration and Organization

Dean

Jeffrey Stinson, PhD (Shaw-Smyser Hall, room 129)

Associate Dean

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

Vision

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

Mission

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

Our Shared Values

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

We believe in:

- Student success
- Lifelong learning
- Integrity and ethical behavior
- Excellence

We commit ourselves to:

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

Statement of Conduct

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

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

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

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

Code of Honor

As College of Business students we pledge to uphold these standards of professionalism and conduct ourselves in accordance with them. We will not lie, cheat, or steal, and will

not tolerate those who do. Our behavior defines who we are and what we will become.

Graduate Degree Program:

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

College of Education and Professional Studies

Administration and Organization

Dean

Paul Ballard, EdD (Black Hall, room 228)

Associate Dean

Gregory Schwab, EdD

Executive Director of the School of Education

Ronald B. Jacobson, PhD (Black Hall 126)

Contact Information

509-963-1411

Mail Stop 7415

www.cwu.edu/education-professional-studies

The mission of the College of Education and Professional Studies (CEPS) is to prepare competent, enlightened citizens who will enhance their respective professions, commit themselves to socially responsible leadership, and help develop the global economy in a spirit of cooperation. Each academic unit of the college has developed specific goals to address this mission.

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

School of Education

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

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

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

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

Professional Studies

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

College of Education and Professional Studies programs value:

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

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

Graduate Degree Programs:

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

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

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

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

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

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

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

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

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

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

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

College of the Sciences

Administration and Organization

Dean

Tim Englund, PhD (Dean Hall, room 130)

Associate Dean

Mike Harrod, PhD (Dean Hall, room 130)

Associate Dean

Martha Kurtz, PhD (Dean Hall, room 130)

Staff

Brad Weekly, development officer
Velma Henry, administrative assistant
Janis Orthmann, administrative assistant
Toni Snowden, program coordinator
Dannica Price, event coordinator
Shelby Taylor-Olson, secretary senior

Mail Stop 7519
509-963-1866
www.cwu.edu/sciences

The College of the Sciences (COTS) is comprised of 13 departments and 12 interdisciplinary programs representing disciplines in the behavioral, natural, and social sciences, and mathematics. The departments and programs of the college offer undergraduate baccalaureate degrees, master's degrees, minors that supplement other degree programs, and a comprehensive range of service coursework. As an essential part of its mission, the college offers an extensive general education curriculum. The departments play a major role in Central's Teacher Certification Programs, offering bachelors and master's degrees for students preparing to be secondary teachers and providing coursework in educational foundations and discipline-specific content and methods.

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

Graduate Degree Programs

Biological Sciences (MS)
Specializations: Botany; Stream Ecology and Fisheries; Microbiology and Parasitology; Terrestrial Ecology
Contact: Dr. Kris Ernest; Kristina.Ernest@cwu.edu, (509)963-2805

Chemistry (MS)
Specialization: Chemistry
Contact: Dr. Carin Thomas; Carin.Thomas@cwu.edu, (509)963-2815

Computer Science (MS)
Specialization: Computational Science
Contact: Dr. Razvan Andonie, Razvan.Andonie@cwu.edu, (509)963-1430

Geology (MS)
Specializations: Active and Regional Tectonics; Continental Dynamics and Seismology; Environmental Geochemistry; Geomorphology; Geomorphology and Climate Change, Paleohydrology and Volcanology
Contact: Dr. Lisa Ely; Lisa.Ely@cwu.edu, (509)963-2177

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

Primate Behavior (MS)
Specialization: Primate Behavior
Contact: Dr. Jessica Mayhew; Jessica.Mayhew@cwu.edu, (509)963-3220

Cultural and Environmental Resource Management (MS)
Anthropology
Contact: Dr. Patrick McCutcheon; Patrick.McCutcheon@cwu.edu, (509)963-2075

Cultural and Environmental Resource Management (MS)
Specialization: Geography
Contact: Dr. Jennifer Lipton; Jennifer.Lipton@cwu.edu; (509) 963-1164

Psychology (MS)
Specialization: Experimental Psychology
Contact: Dr. Ralf Greenwald; Ralf.Greenwald@cwu.edu,
(509)963-3630

Psychology (MS)
Specialization: Mental Health Counseling
Contact: Dr. Meaghan Nolte; Meaghan.Nolte@cwu.edu,
(509)963-2254

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

Interdisciplinary Programs

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

American Indian Studies: Marna Carroll, Dean Hall 344, 509-963-3201

Craft Brewing: Steve Wagner, PhD, Science Building, Room 236K, 509-963-1378

Environmental Studies: Pam McMullin-Messier, PhD, Discovery Hall, room 111A, 509-963-2008

Integrated Energy Management: Elvin Delgado, PhD, Discovery Hall, room 111A, 509-963-2008

Interdisciplinary Studies - Social Sciences: Alena Yastchenko, MA, Deccio 215, 509-963-3607

Museum of Culture and Environment: J. Hope Amason, PhD, Dean Hall, room 122, 509-963-2313

Primate Behavior and Ecology Program: Lori Sheeran, PhD, Dean Hall, room 356, 509-963-3201

Resource Management Program: Patrick McCutcheon, PhD Dean Hall, room 340, 509-963-2075 and Jennifer Lipton, Dean Hall, room 322, 509-963-1164

Science Talent Expansion Program (STEP): Marth Kurtz, PhD, Discovery Hall, room 111E, 509-963-3002

Women's and Gender Studies: Judith Hennessey, PhD, Samuelson, room 231C, 509-963-1574

Affiliated Centers and Institutes

Center for Spatial Information and Research: Anthony Gabriel, PhD, Dean Hall, room 320, 509-963-1166

Center for the Environment: Pam McMullin-Messier, PhD, Discovery Hall, room 111A, 509-963-2008

Central Washington Archaeological Survey, Anthropology: Patrick McCutcheon, PhD, Dean Hall, room 340, 509-963-2075 or Steve Hackenberger, PhD, Dean Hall, room 349, 509-963-3224

Community Counseling and Psychological Assessment Center: Heath Marrs, PhD, Psychology Building, room 346, 509-963-2349

Geodesy Laboratory and Pacific Northwest Geodetic Array (PANGA) Data Analysis Facility: Tim Melbourne, PhD, Discovery Hall, room 322C, 509-963-2799

Office of Continuing Education

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

Please NOTE:

- All Continuing Education courses, certificates, degrees, and services are offered on a self-support basis, and may be canceled if adequate enrollment is not reached.

- Waivers for veterans, university staff, senior citizens, and others do not apply. However, student financial aid can be applied to credit courses.

- Full fee-paying students must make additional payments at the rate established for each continuing education course in which they enroll.

- Tuition for some Continuing Education courses is higher than regular CWU tuition. Additional course fees may also apply.

Please visit us on the Web at www.cwu.edu/ce or call 509-963-1712 for complete information on the following programs:

ACADEMIC PROGRAMS

Craft Brewing Certificate

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

For more information, please visit www.cwu.edu/craft-brewing or e-mail craftbrewing@cwu.edu.

UNIV 304 and GIVE International Excursions

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

opportunities associated with international sustainable development projects.

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

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

CAREER TRAINING AND DEVELOPMENT

Online Certificates - Non-credit

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

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

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

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

Online Courses - Non-credit

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

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

Seminars and Workshops - Non-credit

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

Excel, Leading across generational differences, Social media strategy, and more.

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

PROGRAMS FOR EDUCATORS

Alternate Pathways to Teaching Program

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

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

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

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

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

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

For more information, please visit School of Education or Teacher Development at www.cwu.edu/ce.

Online Courses - Non-credit

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

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

Seminars and Workshops - Non-credit

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

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

LIFE AND LEISURE

Courses - Non-credit

These fun offerings are open to the public and range from recreational activities like fly fishing and hiking to beer tastings and bus trips to local wineries and breweries. Categories of classes include Outdoor Recreation and Fitness; Bus Tours and Day Trips; Food, Wine, and Beer; and Art, Culture, and History.

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

Online Learning

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

Online offerings at CWU are meant to:

- provide more flexible access to content and instruction for learners who are unable to attend traditional face-to-face offerings
- provide greater educational course and program selection for students
- improve time-to-degree completion by offering students greater course scheduling flexibility

More information about online learning at CWU is available on the web at: www.cwu.edu/online-learning.

ONLINE LEARNING POLICIES

Admission

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

Registration

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

Advising

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

Tuition

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

Student Services

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

Financial Aid

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

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

Veterans

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

Library

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

Textbooks

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

Final Exam Schedule

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

Out-of-State Students

Central Washington University has authorization to deliver online courses and degree programs to out-of-state students under the terms and provisions of the State Authorization Reciprocity Agreements (SARA) and individual state authorizations. Please check www.cwu.edu/online-learning/out-of-state-students for a list of authorized states and requirements.

ONLINE LEARNING PROGRAMS

Online Graduate Degree Programs

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

Online Undergraduate Degree Programs

- BS Aviation Management
- BS Business Administration
- BA English: Professional and Creative Writing
- BS Information Technology and Administrative Management
 - Administrative Management Specialization
 - Administrative Management Specialization (FlexIT Competency Based)
 - Cybersecurity Specialization
 - Project Management Specialization
 - Retail Management and Technology Specialization
 - Retail Management and Technology Specialization (FlexIT Competency Based)
- BAS Information Technology and Administrative Management
 - Administrative Management Specialization
 - Cybersecurity Specialization
 - Information Technology Specialization
 - Project Management Specialization
- BS Interdisciplinary Studies: Social Sciences
- BA Law and Justice
- BS Paramedicine (Hybrid)
- BA Psychology
- BS Public Health
- BS Social Services
- BA Sociology

Online Minors

- Accessibility Studies Minor
- Administrative Management Minor

- Anthropology Minor
- Cybersecurity Minor
- Data Analytics for IT Managers Minor
- Digital Forensics and Incident Response Minor
- Family Science Minor
- Geography Minor
- Human Resources Management Minor
- Information Technology Minor
- Latino and Latin American Studies Minor
- Law and Justice Minor
- Library and Information Science Minor
- Non-Profit Organization Management Minor
- Project Management Minor
- Psychology Minor
- Public Health Minor
- Retail Management and Technology Minor
- School Library Media Studies Minor
- Sociology Minor
- Sports Business Minor

Online Certificates/Endorsements

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

Degrees Offered (Majors, Certificates)

Athletic Administration, MS
Biology, MS
Career and Technical Education, MS
Chemistry, MS (Non-Thesis Option)
Chemistry, MS (Thesis Option)
Computational Science, MS
Cultural and Environmental Resource Management, MS
Cybersecurity Management Graduate Certificate
Engineering and Technology Systems, MS (MSETS)
English Literature, MA
English: Professional and Creative Writing, MA
English: TESOL, MA
Experimental Psychology, MS
Family and Child Life, MS
Geological Sciences, MS
Graduate Preparation Program Certificate
Graduate Professional Accounting Certificate
Graduate Professional Tax Practice Certificate
Health and Physical Education, MS
Higher Education, MEd
History, MA
Individual Studies, MA, MEd, MFA, MS
Integrative Human Physiology, MS
IT Data Management Graduate Certificate
IT Leadership Graduate Certificate
IT Management Graduate Certificate
ITAM MS, Administrative Management Specialization
ITAM MS, Cybersecurity Management Specialization
ITAM MS, Information Technology Specialization
ITAM MS, Structures of Data Analytics for IT Managers
Specialization
Law and Justice, MS
Library Media Certificate
Literacy, MEd
Master of Fine Arts in Art
Master of Music
Master of Public Health
Master Teacher, MEd
Mental Health Counseling, MS
Nutrition, MS
Post-Baccalaureate University Certificate: Teaching and
Linguistic Diversity
Primate Behavior, MS
Public Administration, MS
Residency Principal's Certificate
Residency Program Administrator Certificate
Residency Program Administrator Certificate (Special
Education)
Rural and Community Health Graduate Certificate
School Administration, MEd
School Psychology, EdS
Special Education, MEd - Endorsable
Teacher Certification MAT, Secondary and K-12
Specialization
Teacher Certification MAT, Special Education
Specialization
Theatre Arts MA, Theatre Production Specialization
Theatre Arts MA, Theatre Studies Specialization

Accounting Department

College of Business
Ellensburg (E)
Shaw-Smyser Hall, room 327
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7484
509-963-3340
Fax: 509-963-2875
www.cwu.edu/accounting

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

Faculty and Staff Chair

Toni Sipic, PhD
Shaw-Smyser Hall, room 340

Professors

Robert E. Holtfreter, PhD, CFE, CICA, CBA (E)
Ke Zhong, PhD (L)

Associate Professors

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

Assistant Professor

Fabio Ambrosio, JD/LLM, CPA/ABV/PFS, CFP, EA, CVA,
MAFF, CFE, CGMA (D)
Ryan Cahalan, JD/LLM, MBA (E)
Clemense E. Ehoff, Jr., PhD, CPA, CGMA (E)
Steven Hawkins, PhD, CPA (E)

Senior Lecturers

Jenny Cravens, MAC, CPA (E), O'Shaughnessy Executive
Professor of Accounting

Staff

Lisa Woods, secretary

Program Outcomes

For information on program outcomes, please go
to: [www.cwu.edu/mission/assessment-improvement/slo-
assessment-plans](http://www.cwu.edu/mission/assessment-improvement/slo-assessment-plans).

Course Offerings

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

Graduate Professional Accounting Certificate

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

Advanced Accounting and ACCT 583-Seminar Auditing.

Additionally, the program is designed to further develop CPA-oriented students with computer, research, communications, critical thinking, and time (project) management skills. Such skill development will be integrated across the curriculum via three accounting labs that will address skills and professional orientation (the labs are BUS 541A, ACCT 550A and ACCT 583A). The accounting labs will offer 1 credit hours per quarter and will be an integral part of the program, offered concurrently with the companion core courses.

Admission Requirements

- Completion of Intermediate Accounting Series (ACCT 350, 351, 352) with 3.0 series GPA
- Completion or concurrent enrollment in ACCT 441/541-Advanced Tax 1: Individual
- Evidence of English language proficiency for ESL students
 - Computer-based TOEFL minimum score of 213, or
 - Internet-based TOEFL minimum score of 79, or
 - IELTS minimum score of 6.5.
- Statement of Educational and Professional Objectives
- Admissions approval by the Professional Accounting Graduate Certificate Program Committee

Graduation Requirements

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

Program Requirements

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

Required Courses

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

Total Credits: 18

College and Department Information

Accounting Department
College of Business

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Graduate Professional Tax Practice Certificate

The Graduate Certificate in Professional Tax Practice specifically caters to the growing industry need for competent tax professionals. The program is composed of eight courses, four of which are content courses and four of which are applied research courses. Admission to the program requires one foundational tax course. Students who have never taken a tax course can satisfy the admission requirement by taking ACCT 340 or 303 at CWU. Courses may be waived only with permission of the Department Chair.

This program is aligned with the IRS Special Enrollment Examination (SEE), also known as the Enrolled Agent Exam. Enrolled Agent status is the highest credential the IRS awards. Enrolled Agents, like attorneys and certified public accountants, have unlimited practice rights before the IRS. This means that they are unrestricted as to which taxpayers they can represent, what types of tax matters they can handle, and in which IRS offices they can represent clients. Unlike CPAs or attorneys, Enrolled Agents become nationally certified, allowing them to practice in any state with the same certification. Enrolled Agents may even seek admission to the United States Tax Court under 26 U.S.C. §7452, a rare case in which a non-attorney may represent someone before a federal trial court.

Admission Requirements

- Bachelor's degree from an accredited institution by the time of matriculation or enrollment with a GPA of 3.0 or higher.
- Completion of one foundation tax course, the content of which is similar to ACCT 340 or 303 at CWU.
- Evidence of English language proficiency for ESL students (such as TOEFL)

Those with or without industry experience are encouraged to apply. Applicants must be comfortable with the use of computers and office applications, such as Microsoft Word and Microsoft Excel (or comparable office applications). Students with a business background and/or undergraduate business degree are encouraged to apply. Interested students will be:

- Students interested in pursuing the IRS Enrolled Agent credential
- Accounting majors and graduates fulfilling CPA credit hour requirements
- Students and graduates in any other discipline who want to expand their knowledge of taxation
- Sponsored students such as those eligible for military benefits looking for a second career after retirement

Graduation Requirements

Completion of all courses and GPA of 3.0 or above.

Program Requirements

The program is composed of eight courses, four of which are content courses and four of which are applied research courses.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- be competent to provide individual income tax advice.

- be competent to provide business income tax advice.
- demonstrate competence in tax procedure and is ready to represent taxpayers ethically.

Core Courses

- ACCT 521 - Advanced Tax 1: Business Entities **Credits:** (5)
- ACCT 522 - Advanced Tax 2: Individuals **Credits:** (5)
- ACCT 523 - Advanced Tax 3: Practice and Procedure **Credits:** (5)
- ACCT 524 - Advanced Tax 4: Current Issues in Taxation **Credits:** (5)

Applied Courses

- ACCT 521A - Tax Research Lab-Entities **Credits:** (1)
- ACCT 522A - Tax Research Lab - Individuals **Credits:** (1)
- ACCT 523A - Tax Research Lab - Practice and Procedure Tax Research Lab - Practice and Procedure **Credits:** (1)
- ACCT 524A - Tax Research Lab - Current Issues in Taxation **Credits:** (1)

Total Credits: 24

College and Department Information

Accounting Department
College of Business

Anthropology and Museum Studies Department

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

<http://www.cwu.edu/anthropology>
See website for how this program may be used for educational and career purposes.

**Faculty and Staff
Chair**
Lori K. Sheeran, PhD

Professors
Steven Hackenberger, PhD, archaeology, cultural resource management, North America and Caribbean

Patrick Lubinski, PhD, archaeology, zooarchaeology, cultural resource management, North America
Patrick McCutcheon, PhD, archaeology, evolutionary and environmental archaeology, cultural resource management
Lene Pedersen, PhD, sociocultural anthropology, visual and environmental anthropology, postcolonialism, SE Asia (Indonesia), E. Africa, circumpolar North
Lori K. Sheeran, PhD, biological anthropology, primate behavior, Asian primates
Penglin Wang, PhD, linguistic and cultural anthropology, East and Central/Inner Asia, China

Assistant Professors

J. Hope Amason, PhD, political economy and globalization, politics of representation, race, class, and gender, museums, memorials and heritage sites, tourism studies, Appalachia, US South

Nicole Jastremski, PhD, biological anthropology, forensic anthropology, bioarchaeology, mortuary analysis, paleopathology, taphonomy, identity formation, Ecuador
Jessica Mayhew, PhD, Biological anthropology, primate behavior and socio-cognition, play behavior, Africa, Central America

Rodrigo Rentería-Valencia, PhD, Environmental anthropology, semiotics, linguistic anthropology, ritual and performance theory, visual anthropology; Northern Mexico and the borderlands

Staff

Penelope Anderson, secretary senior

Department Information

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

Art and Design Department

College of Arts and Humanities
Ellensburg
Randall Hall, room 100
Mail Stop 7564
509-963-2665

www.cwu.edu/art

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

**Faculty and Staff
Chair**
Gregg Schlanger, MFA

Professors
Keith Lewis, MFA, jewelry and metalsmithing
Gregg Schlanger, MFA, sculpture

Associate Professors
Ellen Avitts, PhD, art history
David Bieloh, MFA, graphic design
Maya Chachava, MFA, painting

Rachel Kirk, MFA, foundations and drawing
Stephen Robison, MFA, ceramics

Assistant Professors

Marcus DeSieno, MFA, photography
Justin Beckman, MFA, graphic design

Senior Lecturers

Joan CawleyCrane, MA
Chris Hinrichs, MA
Howard Barlow, MFA

Lecturers

Joshua Humphry, MM
Jacqueline Trujillo, MFA
Monica Bowen, MA

Staff

Jeff Cleveland, department maintenance
Heather Horn Johnson, gallery manager
Gwendolyn Bruce, secretary senior

Department Information

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

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

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

Policies and Procedures

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

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

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

Applicants are required to submit 20 examples of their recent work in the form of digital images along with an image list. This documentation should represent the depth and breadth of the applicant's work. Students are strongly urged to visit the campus and arrange a personal interview with faculty members in their

major area of concentration and with the department chair prior to submitting an application. Consistent with the above criteria, applicants with undergraduate degrees in disciplines other than visual arts are encouraged to apply.

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

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

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

- To determine that the student is making satisfactory progress in the degree program
- To evaluate the student's studio work
- To identify problems and to offer solutions.

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

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

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

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

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

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

Final Oral Examination: Upon completion of the studio project, the student will discuss and defend the project and the

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Master of Fine Arts in Art

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate knowledge of the nature and aesthetics of contemporary art practices.
- Examine the place of art in our culture and locate oneself within this larger context.
- Analyze and articulate written discourse on relevant visual issues as it informs personal creative work.
- Create work which grows out of an understanding of issues with contemporary relevance.
- Create a body of work that meets the standards for an M.F.A. Thesis exhibition.
- Compose an artist statement, exhibition proposal, and an exhibition self-statement that meets the standards for an M.F.A. degree.
- Produce work synthesizing acquired skills with a strong personal artistic voice.

Required Courses

- Art History, 400 level and above **Credits:** (12)
- Major Studio Concentration **Credits:** (40-56)
- Electives Outside Major Studio Concentration **Credits:** (12-24)
- ART 585 - Seminar in Contemporary Art **Credits:** (3)
- ART 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-12) (Must be taken for 12 credits)

Total Credits: 90

College and Department Information

Art and Design Department
College of Arts and Humanities

Aviation Department

College of Education and Professional Studies
Ellensburg
Black Hall Suite 225-1
400 East University Way 98926-7515
509-963-2364
Fax: 509-963-2377
Mail Stop 7515
aviation@cwu.edu

www.cwu.edu/aviation

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

Faculty and Staff Chair

Gregory Schwab, EdD

Professors

Amy L. Hoover, PhD, CFII, mountain flying, meteorology, human factors
Sundaram Nataraja, MS, EdD, CILT, aviation management, airport finance, airport/airlines marketing
Teresa Sloan, MIT, ATP, FAA ground schools, air transportation
Jason Underhill, MBA, ATP, CFII, aircraft systems and simulation, airline operations
Dale Wilson, MS, ATP, MGI, CFI, aviation safety, human factors, aviation weather

Assistant Professor

Peter Dittmer, EdD, MCFI, ATP, ground schools, air transportation

Lecturers

Rich Bates, CFII, MEI, assistant chief flight instructor
Cathy Busha, JD, aviation law
Nathaniel Freedman, Senior Flight Instructor, CFI, CFII
Jeff Cole, Senior Flight Instructor, ATP, CFI, CFII
Anthony Davis, Senior Flight Instructor, CFI, CFII, MEI
Andrew McIrvin, BS, ATP, DPE, chief flight instructor

Staff

Lisa Broweleit, program support supervisor
Alex Cater, dispatcher
Shae Parker, dispatcher
Robyn Webb, secretary senior

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

Biological Sciences Department

College of the Sciences
Ellensburg
Science Bldg., room 338
Mail Stop 7537
509-963-2731
Fax: 509-963-2730
www.cwu.edu/biology
See website for how this program may be used for educational and career purposes.

Faculty and Staff

Chair

James E. Johnson, PhD

Professors

Daniel D. Beck, PhD, physiological ecology and herpetology
Lucinda Carnell, PhD, molecular behavioral genetics
Tom R. Cottrell, PhD, plant ecology (emeritus)
David M. Darda, PhD, evolutionary vertebrate morphology, herpetology
Kristina A. Ernest, PhD, ecology and mammalogy
Jason T. Irwin, PhD, animal physiology
Paul W. James, PhD, ecology and fisheries biology
James E. Johnson, PhD, mycology, systematics
Sheldon R. Johnson, PhD, zoophysiology, mammalogy (emeritus)
Holly C. Pinkart, PhD, microbiology, microbial ecology, virology
Mary E. Poulson, PhD, plant physiology
Wayne S. Quirk, PhD, sensation and perception, neuroscience
Ian J. Quitadamo, PhD, STEM education, cell and molecular biology
Linda A. Raubeson, PhD, evolutionary biology and genetics
Stamford D. Smith, PhD, entomology (emeritus)
Lixing Sun, PhD, behavioral ecology, evolutionary biology, and primatology
R. Steven Wagner, PhD, conservation genetics and herpetology

Associate Professors

Clay Arango, PhD, stream ecology and nitrogen biogeochemistry
Jennifer Dechaine, PhD, plant biology
Blaise Dondji, PhD, human physiology, microbiology, parasitology, immunology
Alison Scoville, PhD, ecological and evolutionary genomics
Gabrielle Stryker, PhD, microbiology, immunology and parasitology

Assistant Professors

April Binder, PhD, cell biology, developmental and reproductive biology

Lecturers

Lucy Bottcher, PhD, ecologist, herpetologist
Eric Graham, PhD, plant ecology
Fabiola Serra-Fuertes, DVM, animal biology, physiology

Staff

Emil Babik, engineering technician
Jonathan Betz, instructional classroom support technician
Stacey Ferris, secretary
Eric Foss, instructional classroom support technician
Mari Knirck, fiscal specialist I
Kariann Linnell, fiscal specialist supervisor
Ormacinda White, engineering technician
Mark Young, instructional classroom support technician

Program Description

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

Admission

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

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Biology, MS

Program Coordinator

James Johnson, PhD
Science Building, room 338J

Program Requirements

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

Examinations

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Take courses designed to enhance their knowledge in their chosen area of specialization and to bolster areas deemed deficient in their undergraduate education.
- Define an area of interest within biology and demonstrate historic and current knowledge of that area.
- Design a research project, which will serve as the basis of the thesis.
- Demonstrate the results of their graduate research in the form of a professional level thesis.

MS Biology Core Requirements

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

Total Core Credits: 30

Department-Approved Electives Credits: 15

Total Credits: 45

College and Department Information

Biological Sciences Department
College of the Sciences

Chemistry Department

College of the Sciences
Ellensburg
Science Bldg., room 302
Mail Stop 7539
509-963-2811
www.cwu.edu/chemistry

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

Faculty and Staff Chair

Anthony Diaz, PhD

Associate Chair

Dion Rivera, PhD

Professor

Anthony Diaz, PhD, inorganic, solid state
Levente Fabry-Asztalos, PhD, organic
Anne Johansen, PhD, environmental, analytical
JoAnn Peters, PhD, organic, mechanistic
Dion Rivera, PhD, physical, analytical
Carin Thomas, PhD, biochemistry, toxicology

Associate Professors

Gil Belofsky, PhD, organic
Yingbin Ge, PhD, physical
Todd Kroll, PhD, biochemistry
Tim Sorey, PhD, chemistry education

Assistant Professor

Timothy Beng, PhD, organic

Senior Lecturer

P. Whitney Swain, PhD, general

Lecturers

Christopher Borman, PhD, general
Derek Ricketson, PhD, general
Angleine Wairegi, PhD, general

Staff

Emil Babik, instrument technician
Tony Brown, stockroom manager
Brian Finn, computer technician
Daniel Hall, stockroom assistant
Ian Seiler, safety officer
Lisa Stowe, secretary
Ormacinda White, instrument technician

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

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

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

Admission Requirements

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

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

Program Requirements

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

Program Requirements - Non-thesis MS option: The MS degree (non-thesis option) also requires a minimum of 45 credits of graduate coursework and a comprehensive project or cooperative study in place of a research thesis. Ten of these credits are related to the project (CHEM 590/595) and two credits are required for Chem 700. The remaining 33 credits are earned from coursework. Of the 33 credits, students are required to take at least fifteen core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also

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

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

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

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

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

Examination (non-thesis MS): Each candidate must prepare a final written report that documents the research project or cooperative work they carried out during their graduate study. In addition, each candidate must pass a final oral examination on all phases of the student's program. The review covering the

student's written project and coursework consists of a seminar open to the public followed by queries from the thesis committee. The written documentation for the project is less thorough than for the thesis but the student is still expected to produce a significant research document with proper referencing and is expected to defend their research and methodology.

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Chemistry, MS (Non-Thesis Option)

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

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

The chemistry graduate program at Central Washington University has three different options for obtaining a MS in chemistry: traditional thesis option, project option, and a BS/MS degree option. The traditional thesis option allows students to take advanced classes from the traditional areas of chemistry and to engage in intensive research in a very specific area related to chemistry. Most students finish this degree track within two years of starting the program. Students who choose the thesis option are given priority over other students in the program for teaching assistantships. The project-based option requires more course work than the thesis option, but allows students to submit a project rather than a traditional thesis. The

option also allows for some flexibility if students are already employed in areas related to chemistry. Projects they may be engaged in as part of their employment might be used towards the project MS degree in chemistry with approval from the department. The chair of the student's project committee must be a member of the department's graduate faculty. The final option is a BS/MS degree and is only open to students who obtain their BS from Central Washington University. The degree track allows students to obtain an MS in chemistry within one year after obtaining the BS degree and has a project component associated with the degree rather than a thesis. Students in this program would need to follow the course requirements for the project MS degree in Chemistry. Since the BS/MS program requires students to complete work in a very regimented fashion, students who are interested in this option are advised to discuss the option with their advisor and the graduate program coordinator by the quarter of their junior year.

Admission Requirements

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

Program Requirements

Program Requirements - Thesis option: The MS degree (thesis option) requires a minimum of 45 credits of graduate coursework and research study culminating with a thesis. Sixteen of these credits are research and thesis related (CHEM 595, CHEM 700). The remaining 29 credits are earned from coursework (a minimum of 18 at the 500 level or above). Of the 29 credits, students are required to take at least twelve core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. SCED 542 may also be counted toward the chemistry core credits. This leaves 11 credits for elective courses. The first 2 credits of CHEM 589 consist of a research proposal written by the student and a one hour professional seminar based on this document. The research proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of proposed research, description of experimental approach, expected outcomes, a projected time line, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee members at least two weeks before the

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

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

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

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

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

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

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Master and apply technical information from graduate level courses, and independently perform advanced experimental techniques and data analysis.
- Write and speak clearly in the language and style of the discipline.
- Demonstrate critical thinking skills that utilize qualitative and quantitative problem solving.
- Retrieve and critically analyze chemical literature.
- Practice health and safety protocols that are integral to the discipline.

Required Courses

Core Credits: 17

- **15 credits of chemistry courses at the 500-level are required.**
- CHEM 503 - Introduction to Research **Credits:** (1) (Must be taken during the first year for 1 credit.)
- CHEM 505 - Current Topics in Chemistry **Credits:** (1) (Must be taken for 1 credit.)
- SCED 542 - Teaching Science at Community Colleges **Credits:** (3) (may also be counted towards this core.)

Seminar Credits: 4

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

Comprehensive Project or Cooperative Study Credits: 12

Total credits between CHEM 590 and CHEM 595 must equal 10 credits.

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

Department-Approved Electives Credits: 12

Electives to be selected by advisement.

Total Credits: 45

College and Department Information

Chemistry Department
College of the Sciences

Chemistry, MS (Thesis Option)

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

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

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

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

Admission Requirements

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

Program Requirements

Program Requirements - Thesis option: The MS degree (thesis option) requires a minimum of 45 credits of graduate

coursework and research study culminating with a thesis. Sixteen of these credits are research and thesis related (CHEM 595, CHEM 700). The remaining 29 credits are earned from coursework (a minimum of 18 at the 500 level or above). Of the 29 credits, students are required to take at least twelve core credits in chemistry, enroll in CHEM 503, Introduction to Research, during their first year, and take at least one credit of CHEM 505, Current Topics in Chemistry. SCED 542 can be applied toward the twelve core credits in chemistry. Four credits of seminar (CHEM 589 taken twice) are also required. This leaves 11 credits for elective courses. The first 2 credits of CHEM 589 consist of a research proposal written by the student and a one hour professional seminar based on this document. The research proposal should be a maximum of 10 pages in length (12 point, double spaced) and be composed of an introduction (including a brief survey of related work), objectives of proposed research, description of experimental approach, expected outcomes, a projected time line, and a safety appendix with standard operating procedures (SOPs) relating to their completed and proposed laboratory work (this appendix does not count toward the 10-page limit). The document is to be submitted to committee members at least two weeks before the scheduled seminar and must be approved by the committee as a condition of receiving credit. The student must successfully complete these credits by the end of their third quarter in the graduate program. If the student has a situation that does not allow them to complete these credits by the end of their third quarter in the program they must meet with their graduate advisor and committee to work out an appropriate course of action. The second 2 credits of CHEM 589 are the final oral examination on the student's thesis project and are taken in the quarter the student defends. A written thesis has to be prepared and submitted to the committee members following procedures specified by the Office of Graduate Studies and Research. Candidates must also pass a final oral examination on their thesis project and coursework that is administered by the candidate's graduate thesis committee. Normal completion of the master of science requires two academic years and an intervening summer of study.

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

committee as a condition of receiving credit. Students must submit their proposal and present their seminar before completion of their third quarter as a graduate student. The second 2 credits of CHEM 589 are the final oral examination on the written project or cooperative study. Candidates must also pass a final oral examination on their project and coursework that is administrated by the candidate's graduate thesis committee. Normal completion of the MS in Chemistry requires two academic years and an intervening summer of study.

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

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

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

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

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Master and apply technical information from graduate level courses, and independently perform advanced experimental techniques and data analysis.
- Write and speak clearly in the language and style of the discipline.
- Demonstrate critical thinking skills that utilize qualitative and quantitative problem solving.
- Retrieve and critically analyze chemical literature.
- Practice health and safety protocols that are integral to the discipline.

Required Courses

Core Credits: 14

- **12 credits of chemistry courses at the 500-level are required**
- CHEM 503 - Introduction to Research **Credits:** (1) (Must be taken during the first year for 1 credit.)
- CHEM 505 - Current Topics in Chemistry **Credits:** (1) (Must be taken for 1 credit.)
- SCED 542 - Teaching Science at Community Colleges **Credits:** (3) (may also be counted towards this core.)

Seminar Credits: 4

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

Research and Thesis Credits: 16

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

Department-Approved Electives Credits: 11

Electives to be selected by advisement.

Total Credits: 45

College and Department Information

Chemistry Department
College of the Sciences

Communication Department

College of Arts and Humanities
Ellensburg
Lind Hall, room 109
Mail Stop 7438
509-963-1055
Fax: 509-963-1060
www.cwu.edu/communication
See website for how the communication programs may be used for educational and career purposes.

Faculty and Staff Chair

Katharine Whitcomb, MFA

Associate Chair

Francesco Somaini, PhD, media studies

Professors

César García, PhD, information sciences
James L. Gaudino, PhD, communication studies

Associate Professors

Cynthia Mitchell, MBA, operations management and finance
Maria Sanders, MFA, film editing

Assistant Professors

Emily DuPlessis, MA, communication
Francesco Somaini, PhD, media studies

Lecturers

Michael Caldwell, MFA, film and video studies
Yong Cao, ABD, communication
Luther Clement, MFA
Jamie Gilbert, MEd, non-profit organization management
Jennifer Green, MA, cultural anthropology
Jillene Krause, ABD, communication studies
Joshua Nelson-Ichido, ABD, communication studies
Melissa Johnson, MA, English, film studies
Terri Reddout, MS, communication
Patrick Smith, MFA, film and media production
Toby Staab, MEd, education
Arrington Stoll, PhD, communication
Nicholas Temple, PhD, communication studies
Jon Ward, MA, film and video studies

Staff

Bianca Scott, secretary senior

Department Information

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

Computer Science Department

College of the Sciences
Ellensburg
Samuelson, room 207
Mail Stop 7520
509-963-1495
www.cwu.edu/computer-science
See website for how this program may be used for educational and career purposes.

Faculty and Staff Chair

Mike Harrod, PhD

Professors

Razvan Andonie, PhD, computational intelligence, machine learning, parallel/distributed computing, big data analytics, data mining
Boris Kovalerchuk, PhD, artificial intelligence, visual big data analytics, machine learning, data mining, computer vision, simulation, computer architecture, soft computing

Associate Professor

Donald Davendra, PhD, optimization, evolutionary algorithms, manufacturing systems, chaos control, data analytics

Assistant Professors

Adriano Cavalcanti, PhD, biomedical computing, mobile technology, robotics/nanorobotics, computer graphics
Arne Leitert, PhD, algorithmic graph theory, data structures and algorithms, large scale network analysis
Szilárd VAJDA, PhD, machine learning, medical image processing, document analysis, data analytics

Staff

Chris Stone, secretary senior
Megan McConnell, advisor, recruiter

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Computational Science, MS

Program Objectives and Description

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

competitiveness, and national security.

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

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

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

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

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

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

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

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

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

- Computer Science
- Data Science
- Machine Learning and Cognitive Computing
- Cybersecurity

- High Performance Computing
- Bioinformatics
- Computational Chemistry
- Computational Statistics

Admission Requirements

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate an understanding of each of the subject areas that define the discipline as well as the interrelationships that exist among them.
- Demonstrate the ability to utilize appropriate theoretical constructs for problem solving: definitions, and axioms, theorems, proofs, and interpretation of results.
- Have the ability to apply basic research methods in computer science.
- Demonstrate knowledge of recent technological and theoretical developments, general professional standards, and have an awareness of their own strengths and limitations as well as those of the discipline itself.
- Have the ability to communicate effectively.

Required Courses Credits: 27

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

Department-Approved Electives Credits: 18

(to be selected by advisement)

- CS 540 - Algorithms for Biological Data Analysis **Credits: (4)**
- CS 545 - Data and Information Visualization **Credits: (4)**

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

Total Credits: 45

College and Department Information

Computer Science Department
College of the Sciences

Cultural and Environmental Resource Management Program

College of the Sciences
Ellensburg

Fax: 509-963-1047

www.cwu.edu/resource-management

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

Faculty

Program Coordinators

Natural Resources

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

Cultural Resources

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

Professors

Kevin Archer, PhD, geography, culture and globalization, social production of nature
Kathleen Barlow, PhD, cultural anthropology, museum studies, culture and politics of natural resource extraction, ethnographic methods
Daniel D. Beck, PhD, biological sciences, ecology, behavior, and physiology of reptiles in the Pacific NW, southwestern USA, and western Mexico
Lisa Ely, PhD, geological sciences, fluvial geomorphology,

quaternary geology, paleohydrology
Kristina A. Ernest, PhD, biological sciences, community ecology, plant-herbivore interactions, ecology of small animals
Anthony Gabriel, PhD, geography, resource analysis, physical geography, shoreline inventory and assessment, aquatic systems
Carey Gazis, PhD, geological sciences, geochemistry of fluid-rock interaction in the Earth's crust
Steven Hackenberger, PhD, anthropology, archaeology, paleoecology, cultural resource management, Columbia Plateau
Daniel Herman, PhD, history, 19th century American West, American Indian history, American cultural history
Robert Hickey, PhD, geography, GIS remote sensing, environment, geology, erosion modeling, Australia
Paul W. James, PhD, biological sciences, fish ecology, stream ecology
Robert Kuhlken, PhD, geography, cultural geography, urban and regional planning, environmental literature
Karl Lillquist, PhD, geography, geomorphology, soils, environmental change in arid lands and mountains, air photo analysis, field methods
Patrick Lubinski, PhD, anthropology, archaeology, cultural resource management, zooarchaeology
Patrick McCutcheon, PhD, anthropology, archaeology, geoarchaeology, cultural resource management
Lene Pedersen, PhD, cultural anthropology, ecological, political, and visual anthropology, natural resources, local governance, Southeast Asia, Circumpolar North, East Africa
Lori Sheeran, PhD, anthropology, biological anthropology, primate ecology, China
Rex Wirth, PhD, political science, resource policy in developing nations

Associate Professors

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

Assistant Professors

Hope Amason, PhD, tourism studies, urban anthropology, political economy, museum anthropology, sociocultural anthropology

Elvin Delgado, PhD, geography, energy and capitalism, political economy and nature, critical resource geography and political ecology

Pamela McMullin-Messier, PhD, demography, collective action, environmental justice, hazards, and gender

Michael Pease, PhD, geography, water resource management, environmental law, resource allocation

Tony Sipic, PhD, economics, environmental economics, political economy, industrial organization

Megan Walsh, PhD, geography, biogeography, paleoecology, climate change, fire history

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

Resource Management, MS

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

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

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

3. A good background in basic statistics (the equivalent of two quarters of undergraduate statistics), knowledge of microeconomic principles, and some knowledge of computer systems (the equivalent of a one-quarter undergraduate course).

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

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

Additional Information

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

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

Thesis: Each candidate must successfully complete a thesis that involves original research undertaken within a literature context.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Cultural and Environmental Resource Management, MS

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.

Admission Requirements

In addition to master's degree guidelines for admission to

master's programs, applicants for admission must have the following qualifications:

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

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

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

Program Requirements

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

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

Thesis: Each candidate must successfully complete a thesis that involves original research undertaken within a literature context.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate ability to effectively communicate about REM issues
- Propose, perform, and report on significant independent research
- Demonstrate knowledge of U.S. environmental and resource laws and regulations
- Demonstrate knowledge of procedures for environmental analysis
- Assess causes, character, affected parties, and resolution of resource-based conflicts
- Engage in professional activities

Required Courses Credits: 33

- ECON 462 - Economics of Energy, Resources and Environment **Credits:** (5)
- REM 501 - Introduction to Resource Management **Credits:** (4)
- REM 502 - Policy and Law in Resource Management **Credits:** (5)
- REM 505 - Introduction to Graduate Research **Credits:** (3)
- REM 506 - Resource Management Colloquium **Credits:** (1) (Must be taken for 2 credits)
- REM 522 - Resource Analysis **Credits:** (5)
- REM 562 - Issues and Conflicts in Resource Management **Credits:** (3)
- REM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 27

- Electives (to be selected by advisement): Natural Resource or Cultural Resource Management.

Total Credits: 60

College and Department Information

Cultural and Environmental Resource Management Program
College of the Sciences

Curriculum, Supervision, and Educational Leadership Department

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

www.cwu.edu/csel/

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

Faculty and Staff Chair

Ian Loverro, PhD

Graduate Programs Coordinator

Denise Shaw, PhD, master teacher
Don Wattam, EdD, school administration, higher education

Professors

Kelly Benson, EdD, curriculum and instruction, leadership, law

Kim M. Jones, PhD, curriculum and instruction
Naomi Jeffery Petersen, EdD, philosophy, assessment, STEM,
informal settings, accessibility studies
Henry Williams, EdD, school administration

Associate Professors

Jan Byers-Kirsch, EdD, curriculum and instruction, literacy and supervision
Ian Loverro, PhD, educational technology and communication
Lee Plourde, PhD curriculum and instruction, supervision, administration
Molly Ross, EdD, field supervisor
Denise Shaw, PhD, curriculum and instruction, alternative pathways to teaching
Don Wattam, EdD, school administration, higher education

Assistant Professors

Susana Y. Flores, PhD, multicultural education
Eric Hougan, PhD, educational leadership, policy studies
Keith Reyes, EdD, multicultural education

Senior Lecturers

Leona Lindvig, MEd, library media
Brita Williams, MiT, field supervisor

Staff

Joann Schaan, secretary senior
Debbie Strand, administrative assistant

Department Information

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

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

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

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

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

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

Admission Requirements

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

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

Elective Curriculum, Supervision, and Educational Leadership Courses

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

Elective Area of Emphasis Courses

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Teacher Certification MAT, Secondary and K-12 Specialization

This specialization is intended for candidates seeking Washington State Residency Teacher Certification in a K-12 or Secondary endorsement area as part of their Teacher Certification, MAT.

Teacher Certification, MAT Core

This Master's program is intended for candidates seeking Washington State Residency Teacher Certification and a Master's degree. It consists of five quarters of study, combining

online/hybrid coursework and a year-long clinical experience in a K-12 classroom. In order to receive a Washington State Teaching Credential, candidates must meet all requirements of the Teacher Certification Program for Washington State Teacher Certification, including passing of the edTPA. Applicants include paraprofessionals, career switchers, and teachers currently employed under emergency credentials.

Admission Requirements

Bachelor's degree from a regionally accredited institution.

Cumulative GPA of 3.0 or higher in last thirty credits of college (undergraduate or graduate) course work.

Passing scores on the WEST B sub tests (writing, reading, and mathematics).

Passing score on the appropriate WEST-E or corresponding NES test in the content area(s) for which the candidate seeks endorsement.

Graduation Requirements

Candidates must complete all major courses with a B- or higher, maintain a cumulative GPA of at least 3.0, and meet all requirements of the Teacher Certification Program for Washington State Teacher Certification.

Program Requirements

Successful completion of the following: 2 week intensive "bootcamp" in Ellensburg; a year-long internship, including a minimum of 720 hours in a K-12 classroom; 3 day-long in-person Saturday seminars during the Fall and Spring quarters; 2 virtual Saturday seminars in Winter; and a passing score on the edTPA.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Make appropriate instructional choices based on learner characteristics and the context of the school and community.
- Implement, and assess a curriculum that is coherent and aligned with state standards.
- Exhibit the dispositions of a professional educator, including their understanding of professional and ethical responsibilities, relevant law and policy, and educational foundations.

Core Requirements

These core classes will be taken by all teacher certification MAT candidates.

- EDBL 514 - Introduction to Linguistic Diversity in Education **Credits:** (3)
- EDU 503 - Adolescent Development and Learning for Teachers **Credits:** (4)
- EDU 504 - Since Time Immemorial **Credits:** (4)
- EDU 532 - Multicultural Education for Equity, Access and Social Justice **Credits:** (4)
- EDU 551 - Assessment **Credits:** (3)
- EDU 561 - Methods and Models Instruction **Credits:** (3)

- EDU 563 - Technologies for Teaching and Learning **Credits:** (4)
- EDU 582 - Seminar I **Credits:** (4)
- EDU 583 - Seminar II **Credits:** (4)
- EDU 584 - Seminar III **Credits:** (5)
- EDU 585 - History and Philosophy in Education **Credits:** (3)

Total Core Credits: 41

Secondary and K-12 Specialization

Required Courses

- EDSE 502 - Equitable Differentiated Instruction **Credits:** (4)
- EDU 531 - Culturally Responsive Management of the Learning Environment **Credits:** (3)
- EDU 572 - Clinical Practice I **Credits:** (1)
- EDU 573 - Clinical Practice II **Credits:** (1)
- EDU 574 - Clinical Practice III **Credits:** (1)
- EDU 575 - Legal Issues in Education **Credits:** (3)
- EDU 700 - Thesis, Project and/or Examination **Credits:** (1-6) (Must be taken for 3 credits)

Total Specialization Credits: 16

Total Credits: 57

College and Department Information

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

Teacher Certification MAT, Special Education Specialization

This specialization is intended for candidates seeking Washington State Residency Teacher Certification in Special Education as part of their Teacher Certification MAT.

Teacher Certification, MAT Core

This Master's program is intended for candidates seeking Washington State Residency Teacher Certification and a Master's degree. It consists of five quarters of study, combining online/hybrid coursework and a year-long clinical experience in a K-12 classroom. In order to receive a Washington State Teaching Credential, candidates must meet all requirements of the Teacher Certification Program for Washington State Teacher Certification, including passing of the edTPA. Applicants include paraprofessionals, career switchers, and teachers currently employed under emergency credentials.

Admission Requirements

Bachelor's degree from a regionally accredited institution.

Cumulative GPA of 3.0 or higher in last thirty credits of college (undergraduate or graduate) course work.

Passing scores on the WEST B sub tests (writing, reading, and mathematics).

Passing score on the appropriate WEST-E or corresponding NES test in the content area(s) for which the candidate seeks endorsement.

Graduation Requirements

Candidates must complete all major courses with a B- or higher, maintain a cumulative GPA of at least 3.0, and meet all requirements of the Teacher Certification Program for Washington State Teacher Certification.

Program Requirements

Successful completion of the following: 2 week intensive "bootcamp" in Ellensburg; a year-long internship, including a minimum of 720 hours in a K-12 classroom; 3 day-long in-person Saturday seminars during the Fall and Spring quarters; 2 virtual Saturday seminars in Winter; and a passing score on the edTPA.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Make appropriate instructional choices based on learner characteristics and the context of the school and community.
- Implement, and assess a curriculum that is coherent and aligned with state standards.
- Exhibit the dispositions of a professional educator, including their understanding of professional and ethical responsibilities, relevant law and policy, and educational foundations.

Core Requirements

These core classes will be taken by all teacher certification MAT candidates.

- EDBL 514 - Introduction to Linguistic Diversity in Education **Credits:** (3)
- EDU 503 - Adolescent Development and Learning for Teachers **Credits:** (4)
- EDU 504 - Since Time Immemorial **Credits:** (4)
- EDU 532 - Multicultural Education for Equity, Access and Social Justice **Credits:** (4)
- EDU 551 - Assessment **Credits:** (3)
- EDU 561 - Methods and Models Instruction **Credits:** (3)
- EDU 563 - Technologies for Teaching and Learning **Credits:** (4)
- EDU 582 - Seminar I **Credits:** (4)
- EDU 583 - Seminar II **Credits:** (4)
- EDU 584 - Seminar III **Credits:** (5)
- EDU 585 - History and Philosophy in Education **Credits:** (3)

Total Core Credits: 41

Special Education Specialization

Required Courses

- EDSE 512 - Educational Rights of Individuals with Disabilities **Credits:** (3)
- EDSE 520 - Behavioral Management and Interventions for Students with Exceptionalities **Credits:** (3)
- EDSE 522 - Collaboration, Consultation and the Inclusive Environment **Credits:** (3)
- EDSE 524 - Curriculum, Instruction and Assessment for Students with Exceptionalities **Credits:** (4)
- EDSE 531 - Program Management for Students with Exceptionalities **Credits:** (3)
- EDU 572 - Clinical Practice I **Credits:** (1)
- EDU 573 - Clinical Practice II **Credits:** (1)
- EDU 574 - Clinical Practice III **Credits:** (1)
- EDU 700 - Thesis, Project and/or Examination **Credits:** (1-6) (Must be taken for 3 credits)

Total Specialization Credits: 22

Total Credits: 63

College and Department Information

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

Higher Education, MEd

Master of Education, Higher Education

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

Program Requirements

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

Course Requirements

Students will not be allowed to enroll in any of the courses until they have been admitted into the master of Higher Education Program.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate clear, convincing, and consistent evidence that the vision of the organization is effectively communicated throughout the year and in a variety of ways, and that the communication supports the success of all employees.
- Demonstrate competencies in capitalizing on the diversity of the organization, to improve programs, and meet diverse needs of all employees.
- Understand the importance of operating the organization within the law and how the law can be used to provide for the success of all employees.
- Demonstrate knowledge of research and development skills in designing and execution of research.

Required Courses

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

Department-Approved Electives Credits: 6

Choose from the following:

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

Total Credits: 45

College and Department Information

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

Master Teacher, MEd

Program Description

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

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

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate competence in critical general and content specific pedagogy skills.
- Demonstrate competence in written communication at a master's level for research, writing and presentation skills.
- Create a culminating, professional practitioner-based thesis or project or take a comprehensive examination at a master's level aligned to their professional goals, demonstrating knowledge in their field(s) of study.
- Demonstrate competency at a master's level in their chosen area(s) of emphasis.

Required Courses

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

Total Credits: 48

College and Department Information

School Administration, MEd

The Master of Education School Administration Program prepares teachers for the residency principal's certificate. A student shall complete 45 credits in an approved course of study to be developed in consultation with the graduate advisor. This program does not automatically qualify the student for the residency principal's certificate, which requires that an applicant complete an application and be accepted to the Administrator Certification Program and complete the required coursework in addition to a 12-credit, year-long internship. The MEd School Administration Program prepares individuals who can provide appropriate leadership and direction to the school professional staff and to the community by developing a unified system for managing human resources; developing long-range plans, policies and goals, and; executing the policies developed by the district.

Admission Requirements:

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate clear, convincing, and consistent evidence that the vision of the school is effectively communicated throughout the school year and in a variety of ways, and that the communication supports the success of all students.
- Demonstrate competencies in capitalizing on the diversity of the school community, to improve school programs, and meet diverse needs of all students.
- Understands the importance of operating the organization within the law and how the law can be used to provide for the success of all students.
- Demonstrate educational research and development skills in designing and execution of research.

Required Courses

- Educational Foundations and Research courses (to include EDF 510) Credits: (7)
- EDAD 577 - Diversity Leadership Credits: (3)
- EDAD 579 - School Personnel Credits: (4)
- EDAD 580 - Educational Administration Credits: (4)
- EDAD 581 - Public School Finance Credits: (4)

- EDAD 582 - School Curriculum Credits: (4)
- EDAD 583 - School and Community Credits: (4)
- EDAD 584 - School Supervision Credits: (4)
- EDAD 586 - The Principalship Credits: (4)
- EDAD 589 - School Law Credits: (4)
- EDAD 700 - Master's Thesis, Project Study and/or Examination Credits: (1-6)

Total Credits: 45

College and Department Information

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

Library Media Certificate

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

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

Admission

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

Required Courses

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

Total Credits: 28-31

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Residency Principal's Certificate

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

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

Required Courses

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

Total Credits: 47

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Residency Program Administrator Certificate

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

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

Required Courses

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

- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 582 - School Curriculum **Credits:** (4)
- EDAD 583 - School and Community **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 589 - School Law **Credits:** (4)
- EDAD 692 - Pre-autumn Internship **Credits:** (3)
- EDAD 694 - Internship in Improvement of Instruction and Curriculum Development (Put on reserve 9/16/18) **Credits:** (3-9)

Department-Approved Electives Credits: 3

Total Credits: 42

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Residency Program Administrator Certificate (Special Education)

This certification program is available to individuals who already possess a master's degree or who are currently working on a MEd in special education or related field. Three years of successful, contracted teaching experience in a K-12 educational

setting within the most recent five years is required before admission to the program is granted. Contact the Department of Curriculum, Supervision, and Educational Leadership for details and admission information.

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

Required Courses

- EDAD 575 - Administration and Supervision of IDEA **Credits:** (3)
- EDAD 577 - Diversity Leadership **Credits:** (3)
- EDAD 580 - Educational Administration **Credits:** (4)
- EDAD 581 - Public School Finance **Credits:** (4)
- EDAD 584 - School Supervision **Credits:** (4)
- EDAD 692 - Pre-autumn Internship **Credits:** (3)
- EDAD 694 - Internship in Improvement of Instruction and Curriculum Development (Put on reserve 9/16/18) **Credits:** (3-9)
- EDSE 512 - Educational Rights of Individuals with Disabilities **Credits:** (3)

Total Credits: 33

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Education, Development, Teaching and Learning Department

College of Education and Professional Studies
School of Education
Ellensburg
Black Hall, room 205
Mail Stop 7406
509-963-2049
Fax: 509-963-1421
www.cwu.edu/teaching-learning/

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

Faculty and Staff

Interim Chair

Kate Mastruserio Reynolds, EdD, TESOL

Professor

Yukari Amos, PhD, bilingual education, TESL
Carol Butterfield, PhD, literacy, TESL
Janet Finke, PhD, literacy
Craig Hughes, PhD, bilingual education, TESL
Kate Mastruserio Reynolds, EdD, TESOL
Terrance McCain, PhD, bilingual education, TESL
Sharryn Walker, PhD, literacy

Associate Professors

Dia Gary, EdD, early childhood education
Tina Georgeson, EdD, early childhood and elementary education
YiShan Lea, EdD, bilingual education, TESL
Khodi Kaviani, PhD, elementary education
Keith Salyer, PhD, early childhood and elementary education
Teresa Walker, EdD, early childhood education

Assistant Professors

Grace Blum, PhD, early childhood education, elementary education
Wendie Lappin Castillo, EdD, special education
Pamela M Juniel, PhD, special education

Lecturers

Michele Jacobson, MEd, special education
Tim Lawless, MA, special education
Tanya Mahre, MEd, English and TESL
Linda Velie, MEd, guidance and counseling

Staff

Tina Clark, administrative assistant

Department Information

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

General Information

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

Admission Requirements

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

Required Educational Foundations and Research Courses

EDF 510 is required of all students earning the MEd degree. The candidate further must choose at least six credits from the following: EDF 501, Educational Foundations, EDF 502, History of Education, EDF 503, Philosophy of Education, EDF 504, Advanced Educational Statistics, EDF 505, Educational Measurement for Teachers, EDF 506, Education Futurism, EDF 507, Studies and Problems in Intercultural Education, EDF 508, Comparative Education, EDF 567, Educational Change, PSY

552, Advanced Human Growth and Development, PSY 559, Advanced Educational Psychology (only one of PSY 552 or PSY 559 may be included to meet the foundations requirement), SOC 525, Society and Education, as approved by the student's graduate advisor or committee chair. Related courses may be substituted with permission of the student's graduate advisor or committee chair, the chair of the appropriate department, and the dean of Graduate Studies and Research.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Literacy, MEd

Program Description:

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

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

Program Admission Requirements:

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

Recommended Program Admission Requirements:

Minimum of one year of contracted teaching.

Program:

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Describe understanding of language/literacy development and processes, while considering the research, historical, contemporary, and cultural perspectives in the field
- Describe understanding of the assessment, diagnosis, and evaluation process as it relates to current position. Candidates will share how this knowledge is used in

monitoring and reporting of assessment data to interested parties.

- Describe understanding of the teaching of literacy, considering the characteristics of students, the modeling and teaching of strategies, the selection of materials, and collegial support.
- Describe the literacy environment of the classroom, considering space, time, materials, and student considerations in this description.
- Share goals for own professional development and how those goals will influence teaching, work with colleagues, and leadership skills.
- Describe own process in teaching literacy, including strategies, materials, and assessments that inform and set direction for teaching.

Required Courses

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

Total Credits: 46

College and Department Information

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

Special Education, MEd - Endorsable

Program Description

The master of education with specialization in special education is designed to allow students to pursue graduate-level study and earn an endorsement in special education. Certified teachers (P-

12) who wish to add to their repertoire of strategies for diverse learners in their settings and wish to earn an endorsement to add to their teaching certificate would benefit from this program.

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

Admission Requirements

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

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

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

Undergraduate GPA of 3.0.

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

Graduation Requirements

Completion of 45 credits within program.

GPA of 3.0 or higher.

Satisfactorily complete a culminating experience.

Program Requirements

Must maintain a gpa of 3.0 or higher throughout program.

Must enroll to take the WEST E or equivalent NES or state required test for special education endorsement prior to graduation.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate understanding of special education: development and processes, while considering the research, historical, contemporary, and cultural perspectives in the field
- Describe understanding of the assessment, diagnosis, and evaluation process as it relates to current position. Candidates will share how this knowledge is used in monitoring and reporting of assessment data to interested parties.
- Demonstrate understanding of special education; considering the characteristics of students, the modeling and teaching of strategies, the selection of materials, and collegial support.
- Describe the environment of the classroom that utilizes differentiated instruction, with space, time, materials, and student considerations in this description.
- Share goals for own professional development and how those goals will influence teaching, work with colleagues, and leadership skills.

- Describe their own process in teaching inclusive and differentiated strategies, materials, and assessments that inform and set direction for teaching

Required Courses

- EDSE 520 - Behavioral Management and Interventions for Students with Exceptionalities **Credits:** (3)
- EDSE 522 - Collaboration, Consultation and the Inclusive Environment **Credits:** (3)
- EDSE 524 - Curriculum, Instruction and Assessment for Students with Exceptionalities **Credits:** (4)
- EDSE 531 - Program Management for Students with Exceptionalities **Credits:** (3)
- EDSE 534 - Learning Theories: Research and Applications **Credits:** (4)
- EDSE 535 - Teaching Diverse Learners **Credits:** (5)
- EDSE 536 - Understanding Research Methods **Credits:** (3)
- EDSE 537 - Designing and Writing Research **Credits:** (3)
- EDSE 592C - Practicum: Teaching Diverse Learners **Credits:** (1)
- EDSE 684 - Internship in Professional Affiliated Disciplines **Credits:** (2-12) (Must be taken for 6 credits.)
- EDSE 700 - Master's Thesis and/or Project Study **Credits:** (1-6) (Must be taken for 10 credits.)

Total Credits: 45

College and Department Information

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

Post-Baccalaureate University Certificate: Teaching and Linguistic Diversity

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

Required Courses

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

Total Credits: 12

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Engineering Technologies, Safety, and Construction Department

College of Education and Professional Studies
Ellensburg
Hogue Technology Building, room 101
509-963-1756

www.cwu.edu/engineering

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

Faculty and Staff

Chair

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

Professors

Scott Calahan, MEd, industrial/technology education
David Carns, MS, construction management
Craig Johnson, PhD, mechanical engineering technology

Associate Professors

David Martin, construction management
Lad Holden, MT, electronics engineering technology
Darren Olson, PhD, industrial technology
P. Warren Plugge, PhD, construction management
Charles Pringle, MS, mechanical engineering technology
Sathyarayanan (Sathy) Rajendran, PhD, CSP, ARM, LEED-AP, safety and health management
Michael L. Whelan, PhD, construction management

Assistant Professors

Morgan Bliss, MS, safety and health management
John Choi, PhD, mechanical engineering technology

Greg Lyman, MS, electronics engineering technology
Jennifer Serne, MS, safety and health management

Senior Lecturer

Michael Andler, MS, safety and health management
Ted Bramble, MS, industrial engineering technology

Lecturer

Darryl Fuhrman, MS, engineering technologies, and construction management

Emeritus Professors

Roger Beardsley, MS
D. Ken Calhoun, EdD
Stanley A. Dudley, MEd
Robert M. Envick, EdD
Ronald M. Frye
Robert Wicking, PhD
Norman H. Wolford, MS
Taiqian Q. Yang, PhD
Tim Yoxtheimer, MS

Staff

Matthew Burvee, instructional and classroom support technician
Shelley Spencer, department manager
Jeff Wilcox, instructional and classroom support technician

Program Objectives and Description

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

Admission Requirements

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Engineering and Technology Systems, MS (MSETS)

Program Objectives and Description

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

Admission Requirements

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Identify and find sources of information for conducting reviews of literature.
- Locate, interpret, and synthesize information about emerging technologies in various disciplines.
- Set up full- and fractional- 2k industrial experiments using standard design of experiments procedures, conduct the experimental runs, and analyze the results.
- Write a research proposal and outline the body of a research report and a thesis paper according to university and APA style requirements.
- Present results of research in a clear and concise manner, both verbal and written.
- Describe the various mechanisms by which new technologies evolve, to differentiate between

incremental and radical changes, and to apply these principles on demand, generating innovative ideas driven by need and/or by opportunity.

- Describe how to identify customer needs and how to satisfy those needs by the development of an appropriate set of product or service features, by correct positioning in the market, and by employing appropriate pricing strategies.
- Model and simulate simple manufacturing, construction, and decision making problems using commercially available software
- Design the layout of production workspaces and equipment, using the least amount of space that will still achieve optimum production workflow.
- When creating facilities layout designs, students will be able to incorporate adjacency requirements between and among administrative offices, production areas, and service departments.
- Demonstrate the ability to establish budgets, assign resources, draft proposals, and implement plans.
- Identify how quality requirements such as ISO9001 and how engineering standards impact the collaboration between partners in a supply chain in terms of everyday operations and in terms of governing the product development process.

General Requirements

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

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

General Requirements Total Credits: 29

Department-approved Technical Electives

The student must select 16 credits from the following list to complete a program total of 45 credits. The student may propose to take alternative electives course(s) that are not shown on the list of approved technical electives. If the student takes any electives course for which he or she has not met the prerequisites, then fulfilling those prerequisites will add credit hours to his or her course of study, beyond the 45 credits

required for graduation. All elective courses, including 400-level IET courses, that the student wants to include in the course of study are subject to the approval of the advisor and the department chair.

- ECON 462 - Environmental and Resource Economics **Credits:** (5)
- GEOG 443 - Energy Policy **Credits:** (5)
- ETSC 512 - Alternative Energy Systems **Credits:** (4)
- ETSC 524 - Quality Control **Credits:** (4)
- ETSC 526 - Engineering Project Cost Analysis **Credits:** (4)
- ETSC 530 - Fundamentals of Lasers (Put on reserve 9/16/18) **Credits:** (4)
- ETSC 532 - Generation and Transmission of Electrical Power **Credits:** (4)
- ETSC 552 - LEED in Sustainable Construction **Credits:** (4)
- ETSC 560 - Finite Element Analysis **Credits:** (4)
- ETSC 577 - Robotics (Put on reserve 9/16/18) **Credits:** (4)
- ETSC 582 - Plastics and Composites **Credits:** (4)
- ETSC 583 - Ceramics and Composites **Credits:** (4)
- ETSC 592 - Field Studies **Credits:** (1-10) (Must be taken for 4 credits)
- ETSC 595 - Graduate Research **Credits:** (1-6)
- ETSC 596 - Individual Study **Credits:** (1-6) (Must be taken for 3 credits)
- ETSC 599 - Seminar **Credits:** (1-5) (Must be taken for 1 credit)

Elective Total Credits: 16

Total Credits: 45

College and Department Information

Engineering Technologies, Safety, and Construction
Department
College of Education and Professional Studies

Safety and Health Management, MS

The Master of Science in Safety and Health Management (MS-SHM) degree program provides a two-year professional learning experience (45 credits) for post-baccalaureate students with at least four years of full-time experience in the safety and health management field. It is anticipated this fully online degree program will be in high demand by busy, career-driven environmental health and safety (EHS) professionals who will take up to two courses per quarter in a cohort model, with admission every other year.

The MS-SHM degree program highlights operational aspects of EHS in the workplace and their impact on risk assessment and management, loss prevention, and EHS program audits and administration. This degree is intended to benefit practicing EHS professionals with an EHS-related bachelor's degree or

other bachelor's degree combined with EHS-related work experience. The goal of the MS-SHM degree program is to provide students with assessment, analytical, and administrative tools and skills needed to advise management about EHS issues in the workplace.

This program has been designed to prepare students with executive-level skills and knowledge to administer and assess EHS programs in a variety of industries. The program focuses on the advanced technical, risk management, ethical leadership, and organizational skills and knowledge needed to interpret, develop, direct, and provide oversight for corporate EHS programs. The MS-SHM degree equips students with competencies to fill mid-career and leadership positions and to engage in lifelong learning in the EHS discipline.

Admission Requirements

The Master of Science in Safety and Health Management (MS-SHM) degree will use a cohort format, where all admitted students begin their program during the Fall quarter of every other year, participate in all required courses together, and complete the degree as a group. To be considered for admission to the MS-SHM degree program, prospective students must meet all the application requirements of the School of Graduate Studies and Research (SGSR) requirements and additional SHM program-specific requirements by the published Fall quarter SGSR application deadline.

Please note GRE or GMAT standardized tests are not required for admission into the MS-SHM program.

Please note that applications completed after the deadline will be reviewed based on remaining cohort space. Students must be accepted to both the SGSR and the MS-SHM degree program. The SGSR application requirements are:

1. Application (\$50.00 fee/can apply online)
2. Statement of Educational and Professional Objectives.
3. Three letters of recommendation.
4. Official transcripts from all colleges/universities attended
5. 3.0 GPA or above on your last 90 quarter credits/60 semester credits.

Visit SGSR website for more information about how to apply: www.cwu.edu/masters.

In making admission recommendations, the SHM program faculty assesses the potential of applicants for success in the program by examining their undergraduate records, work experience, education and professional objective statement, letters of recommendation, and any other admission requirements established by the MS-SHM degree program. For details about the MS-SHM degree program and application procedures, contact the SHM Program Director. All applicants must meet the following requirements.

1. Applicants must have an earned a bachelor's degree and have at least four (4) years of full-time environmental, health, and safety (EHS) related work experience.
2. A written verification from applicant employer confirming years of full-time experience in EHS.

3. Earned bachelor's degrees considered for admission must be from regionally-accredited institutions of higher education.
4. Provide a curriculum vitae or resume.

Graduation Requirements

1. A MS-SHM student must satisfy all the CWU/SGSR requirements for the degree that are in force at the time of admission to the program.
2. Attainment of a cumulative grade point average of 3.0 (B) or higher for all courses taken since admission to the graduate program and all work included in the course of study.

Program Requirements

A minimum grade of "B" (3.0) is required in each of the courses used to satisfy the MS-SHM degree program.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Perform research about identified hazards and risks using appropriate tools and references
- Evaluate data and compare it to national or industry standards to anticipate, recognize, and define risks
- Design surveys and audits in accordance with accepted methodologies in order to recognize hazards and recommend controls
- Communicate the results of surveys and audits to management with appropriate documentation
- Educate management about risks, including recommendations for controls or other actions to manage current and potential losses
- Evaluate risks and prioritize corrective actions
- Apply hazard control measures by reviewing available options and choosing the most appropriate in order to manage risk
- Communicate the identified hazard control measures with identification of essential resources
- Align implementation strategies for control measures with the strategic plan for an organization
- Design and implement controls as appropriate in order to manage risk
- Design safety training using adult learning theories
- Conduct incident investigations and analyses
- Recognize the importance of maintaining high standards of professional and ethical conduct
- Recognize the need for lifelong learning in the safety and health profession
- Demonstrate mastery of safety and health management subject matter through an applied project or research activity that includes a written report and oral presentation

Required Courses

- SHM 501 - Safety Sciences **Credits:** (4)
- SHM 502 - SHM Graduate Resources **Credits:** (1)
- SHM 554 - Risk Management Principles and Practices **Credits:** (4)
- SHM 571 - Crisis Management and Continuity of Operations **Credits:** (4)

- SHM 574 - Advanced Safety Management **Credits:** (4)
- SHM 575 - EHS Administration and Ethics **Credits:** (4)
- SHM 576 - EHS Program Management **Credits:** (4)
- SHM 578 - EHS Analytics **Credits:** (4)
- SHM 579 - EHS Sustainability and Stewardship **Credits:** (4)
- SHM 581 - Advanced Industrial Hygiene **Credits:** (4)
- SHM 582 - EHS Research Methods **Credits:** (5)
- SHM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 3 credits.)

Total Credits: 45

College and Department Information

Engineering Technologies, Safety, and Construction
Department
College of Education and Professional Studies

English Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 423
Mail Stop 7558
509-963-1546
www.cwu.edu/english

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

Faculty and Staff

Chair

Katharine Whitcomb, MFA

Professors

Bobby Cummings, PhD, rhetoric, English education, computer composition
George Drake, PhD, British literature, literary theory
Loretta Gray, PhD, applied linguistics, composition, TESOL
Charles X. Li, PhD, linguistics, TESOL, linguistic approaches to literature
Lisa Norris, MFA, creative writing
Paulus Pimomo, PhD, British literature, post-colonial studies
Christopher Schedler, PhD, American and multicultural literature
Katharine Whitcomb, MFA, creative writing

Assistant Professor

Michelle O'Brien, PhD, postcolonial lit, critical race, interdisciplinary gender, and transnational/transpacific literary studies
Cynthia Pengilly, PhD, rhetoric and technical communication
Sarah Sillin, PhD, American Indian oral and nonfiction literature, English studies, literature and history
Zachary VandeZande, PhD, creative writing-fiction
Joshua Welsh, PhD, rhetoric, scientific and technical communication

Maya Zeller, MFA, creative writing

Emeritus Professors

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

Philip B. Garrison, MA, non-fiction, poetry writing, world, and Chicano literature

Karen Gookin, MA, general education, technical writing

Mark W. Halperin, MFA, poetry writing, folk literature, modern poetry

Virginia Mack, PhD, general education, Irish literature

Teresa Martin, PhD, English education, women's literature

Steven Olson, PhD, American literature, film

Joseph Powell, MFA, creative writing, modern poetry

Gerald J. Stacy, PhD, English Renaissance literature

John L. Vifian, PhD 18th century literature, English novel

Senior Lecturers

Melissa Brouwer, MA

Stephanie Dringenberg, MA

Ruthi Erdman, MA

Lila Harper, PhD

Colin Hester, MFA

Karen Hull, MA

Marisa Humphrey, MA

Kevin Leaverton, MA

Matthew Martinson, MA

Amanda Ross, MA

Robert Schnelle, MA

Lecturers

Chloe Allmand, MA

Joshua Aubol, MA

Taneum Bambrick, MA

R. Cass Bruner, MFA

Pedro Xavier Cavazos, MFA

Paula Collucci, MA

Seanse Ducken, MFA

Sonya Dunning, MFA

Victoria Flanagan, MA

Kayla Jeffress, MA

Maili Jonas, MA

Peter Rampa, MA

Cindy Cecile Reyna, MA

Emma Saucedo, MA

Travis Smith, MA

Eric Stephens, PhD

Shannon Wilson, PhD

Staff

Rhonda Muller, secretary supervisor

Krislon Rhynes, office assistant III

Department Information

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

Program Outcomes

For information on program outcomes, please go

to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

English Literature, MA

Master of Arts English (Literature)

The MA in English (literature) offers a rigorous, individualized program of advanced study of literature in English. Students choose from an array of courses and select a thesis/project or exam option. Although allowed flexibility in their course of study, students are required to complete courses in British, American, and world literatures, as well as literary and critical theory. Students enter the program to further their understanding of literature, to strengthen their teaching qualifications, to broaden their writing experiences, or to prepare for doctoral work.

Admission Requirements

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

General Requirements of the Program

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

Thesis/Project Option

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

Exam Option

Students who choose the exam option create, in conjunction with a three-member faculty exam committee, an individualized reading list of the material covered in that student's coursework, and must pass a comprehensive written examination developed by the committee over that material. To prepare for and

complete this exam, they will take three credits of English 596, Individual Study, with the chair of their exam committee.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Read and interpret American, British, and World literatures in English.
- Describe and apply various literary critical theories and strategies.
- Demonstrate their knowledge of scholarly research practices appropriate to the discipline of English literary studies.
- Demonstrate their commitment to professional development.

Required Courses Credits: 25

- ENG 512 - Introduction to English Graduate Study **Credits: (5)**
- ENG 515 - Advanced Studies in American Literature **Credits: (5)**
- ENG 517 - Advanced Studies in World Literature **Credits: (5)**
- ENG 518 - Advanced Literary and Critical Theory **Credits: (5)**
- ENG 519 - Advanced Studies in British Literature **Credits: (5)**

Department-Approved Electives Credits: 23

Complete one of the following two options:

Thesis /Project Option

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

Exam Option

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

Total Credits: 48

College and Department Information

English Department
College of Arts and Humanities

English: Professional and Creative Writing, MA

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

Admissions Requirements

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

Graduation Requirements

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

Required Courses Credits: 10

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

Department-Approved Electives Credits: 35

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

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

Total Credits: 45

College and Department Information

English Department
College of Arts and Humanities

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

English: TESOL, MA

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

Admission Requirements

Pre- or co-requisites to completion of the program include an upper-division linguistics course and intermediate to high proficiency in a second language. International students whose first language is not English automatically meet this proficiency prerequisite. Applicants can be admitted to the program without this background, but they will be required to gain it while enrolled in the program. Students who do not have the prerequisites or who have assistantships are strongly advised to complete the program over a two-year period due to the challenging workload.

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

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

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

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

Program Requirements

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.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate their knowledge of sub sentential, sentential, and suprasentential levels of language.
- Demonstrate their knowledge of pedagogical strategies and methods appropriate for second-language speakers.

Required Courses Credits: 35

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

Department-Approved Electives Credits: 10

- Department-approved electives **Credits: (4)**
- And complete one of the following options for 6 credits:

Thesis Option

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

Exam Option

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

Total Credits: 45

College and Department Information

English Department
College of Arts and Humanities

Family and Consumer Sciences Department

College of Education and Professional Studies
Ellensburg
Michaelsen Hall, room 100
Mail Stop 7565
509-963-2766
Fax 509-963-2787
www.cwu.edu/family-consumer

See website for how this program may be used for educational

and career purposes.

Faculty and Staff Chair

Duane Dowd, PhD

Professors

Kimberlee Bartel, PhD, business and marketing, career and technical education director

Associate Professors

Amy Claridge, PhD, family and child life
Duane Dowd, PhD, CLFE, family and child life
Andrea Eklund, MA, apparel, textiles and merchandising
Sarah Feeney, PhD, family and child life
John Hudelson, PhD, global wine trade

Assistant Professors

Carla Jellum, PhD, recreation, tourism and events
Astrid Vidalon-Shields, MA, apparel, textiles and merchandising

Lecturers

Se Eun Lee, PhD, recreation, tourism and events
Jodi Musser, MA, business and marketing, career and technical education
Jill Perillo-Clarke, MS, global wine trade
Natalie Porter, family and child life
Katie Tenhulzen, MS, family and child life

Emeritus Professors

Joan Amby, PhD, family studies
Dorothy Chase, PhD, recreation and tourism
Willia Dene Powell, PhD, family and consumer sciences education
Carolyn Schactler, MS, apparel design
William Vance, EdD, recreation and tourism
Marla Wyatt, PhD, family and consumer sciences education

Staff

Alex Lange, secretary senior

Program Directors

Amy Claridge, PhD, family and child life program, family resource center director
Andrea Eklund, MA apparel, textiles and merchandising
Jodi Musser, MA, business marketing education, family and consumer sciences education, career and technical education
John Hudelson, PhD, global wine trade
Carla Jellum, PhD, tourism and events

Department Information

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

In consultation with a faculty advisor, and with the approval of the department chair, students may develop a program of courses in one of two specializations. Each student will complete a set of core courses plus coursework specific for each

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

Master of Science Family and Consumer Sciences

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

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

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Career and Technical Education, MS

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 career and technical education. The goal of the program is to prepare candidates for further graduate study, for public school or college teaching, for CTE administrator certification, as specialists in service agencies, or as professionals in, or consultants to business, industry, and government. Completion of this degree does not lead to teacher certification.

Program: In consultation with a faculty advisor, and with the approval of the department chair, each student will complete coursework specific to the degree. 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, project, and/or exam credits will be included in the student's program.

Admission Requirements

Admission to the program through the Office of Graduate Studies and Research.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Use a current literature review to demonstrate the application of program theory through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of technical skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of leadership skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of management skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation

Required Courses

- CTE 501 - Research Methods **Credits:** (4)
- CTE 502 - Statistics **Credits:** (4)
- CTE 522 - Survey of Research **Credits:** (1-5) (Must be taken for 5 credits)

- CTE 580 - Administration **Credits:** (1-5) (Must be taken for 5 credits)
- CTE 581 - Program Resource Management **Credits:** (1-5) (Must be taken for 5 credits)
- CTE 582 - Curriculum Development **Credits:** (1-5) (Must be taken for 5 credits)
- CTE 583 - Partnerships and Advisory Committees **Credits:** (1-5) (Must be taken for 5 credits)
- CTE 584 - Supervision and Evaluation **Credits:** (1-5) (Must be taken for 5 credits)
- CTE 700 - Master's Thesis, Project Study, or Examination **Credits:** (1-6) (Must be taken for 4-6 credits)
- Department-Approved Electives **Credits:** 1-3

Total Credits: 45

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

Family and Child Life, MS

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

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

Admission Requirements

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

Program Requirements

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Use a current literature review to demonstrate the application of program theory through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of technical skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of leadership skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation
- Use a current literature review to demonstrate the application of management skills through field-based projects for the following six domains.
 - Curriculum
 - Administration
 - Partnerships/Advisory Committees
 - Survey of Research
 - Program Resource Mgmt.
 - Supervision/Evaluation

Required Courses Credits: 40

- FCL 501 - Research Methods **Credits: (5)**
- FCL 502 - Statistics **Credits: (4)**
- FCL 532 - Family Interaction **Credits: (4)**
- FCL 534 - Therapeutic Applications of Child Development **Credits: (4)**
- FCL 547 - Families and Poverty **Credits: (4)**
- FCL 592 - Family and Child Life Practicum **Credits: (1-6)** (Must be taken for 12 credits.)
- FCL 595 - Graduate Research **Credits: (1-10)** (Must be taken for 1 credit.)
- FCL 700 - Master's Thesis, Project Study, and/or Examination **Credits: (1-6)** (Must take 2 credits of Examination and 4 credits of Project Study, or 6 credits of Thesis.)

Department-Approved Electives Credits: 12

- FCL 503 - Family Communication **Credits: (4)**
- FCL 514 - Coping with Grief and Loss **Credits: (4)**
- FCL 515 - Therapeutic Play **Credits: (4)**
- FCL 516 - Child Life I: Child Life Scope of Practice **Credits: (4)**

- FCL 517 - Pediatric Diagnoses and Medical Terminology **Credits: (4)**
- FCL 518 - Child Life II: Impact of Child Hospitalization **Credits: (4)**
- FCL 533 - Family Life Education **Credits: (4)**
- FCL 539 - Families and Public Policy **Credits: (4)**
- FCL 544 - Family Problems and Mediation **Credits: (4)**
- FCL 596 - Individual Study **Credits: (1-6)**

Total Credits: 52

College and Department Information

Family and Consumer Sciences Department
College of Education and Professional Studies

Geography Department

College of the Sciences
Ellensburg
Dean Hall, room 301
Mail Stop 7420
509-963-1188
Fax: 509-963-1047
www.cwu.edu/geography

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

Faculty and Staff Chair

Michael Pease, PhD

Professors

John Bowen, PhD, economic geography, transportation geography, Asia
Anthony Gabriel, PhD, hydrology, lake and river ecosystems, coastal and wetlands management
Robert Hickey, PhD, environmental impacts, coastal zones, GIS, Australia ^{L T T T}_{S E P S E P}
Karl Lillquist, PhD, physical geography, geomorphology, soils, environmental change in arid and alpine watersheds

Associate Professors

Elvin E. Delgado, PhD, political ecology, energy and capitalism, political economy and nature, critical resource geography, health geography
Jennifer Lipton, PhD, cultural ecology, remote sensing, climate change, Latin America
Michael Pease, PhD, water resources, watershed planning and analysis, environmental law
Craig Revels, PhD, cultural-historical geography, landscape, Latin America
Megan Walsh, PhD, biogeography, paleoecology, NW fire history, climate change

Assistant Professors

Sterling Quinn, PhD, GIS-geographic information systems, crowdsourced data, critical cartography, Latin America

Senior Lecturers^{L T}_{S E P}

Holly English, MS, environmental policy and energy resources
Elaine Glenn, MS, political geography, world regional
geography, Middle East, Russia

Emeritus Faculty

Dee Eberhart, MA
Kenneth Hammond, PhD
James Huckabay, PhD
Nancy Hultquist, PhD
Robert Kuhlken, PhD
John Ressler, PhD
Morris Uebelacker, PhD

Staff

David Corder, instructional and classroom support technician
III
Monica Reece-Bruya, secretary senior

Department Information

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

Geological Sciences Department

College of the Sciences
Ellensburg
Discovery Hall, room 129
Mail Stop 7418
509-963-2701
Fax: 509-963-2821
www.geology.cwu.edu

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

Faculty and Staff

Chair

Chris Mattinson, PhD

Professors

Wendy A. Bohrsen, PhD, volcanology, isotope geochemistry,
igneous petrology
Lisa L. Ely, PhD, geomorphology, paleohydrology, and
quaternary geology
Carey Gazis, PhD, environmental geochemistry, stable isotope
geochemistry, and hydrogeology
Jeffrey Lee, PhD, active and regional tectonics, structural
geology
Timothy I. Melbourne, PhD, seismology, continental dynamics

Associate Professors

Anne Egger, PhD, Earth science education and structural
geology
Audrey Huerta, PhD, geodynamics, climate, and mountain
building
Susan Kaspari, PhD, climate and environmental variability and
glaciochemistry
Breanyn MacInnes, PhD, sedimentary geology, coastal
geomorphology

Chris Mattinson, PhD, metamorphic petrology, geochronology,
tectonics

Assistant Professor

Walter Szeliga, PhD, geophysics and GPS geodesy

Faculty Research Associates

Beth Pratt-Sitaula, PhD, earth science education and
geomorphology
Paul Winberry, PhD, glacier dynamics, seismology

Lecturers

Keegan Fengler, MS, earthquakes
Winston Norrish, PhD, petroleum geology

Emeritus Professors

Robert D. Bentley, PhD, structural geology, igneous and
metamorphic petrology, regional geology of the Pacific
Northwest
James Hinthorne, PhD, mineralogy, geochemistry, spatial
information systems

Staff

Rex Flake, tiltmeter engineer, PANGA network engineer and
geologist
Angela Halfpenny, engineering technician
Moriah Kauer, fiscal specialist
Carol Ready, WASSER laboratory technician
V. Marcelo Santillan, scientific programmer and GPS data
analyst
Craig Scrivner, systems analyst
Nick Zentner, geology outreach and education director

Geological Sciences, MS

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

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

Application Deadlines and Supporting Materials:

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

scores, and three letters of recommendation.

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

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

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

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

The Geodesy Laboratory houses the data processing center for the Plate Boundary Observatory and PANGA. The laboratory analyzes continuous data from the permanent GPS array in the western United States. Processing is done on a dedicated 60-

node Linux cluster. Additional geodesy equipment includes a number of Trimble SSI and 4700 receivers and digital surveying equipment (Leica Total Stations and Trimble kinematic GPS).

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

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

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

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Geological Sciences, MS

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

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

Application Deadlines and Supporting Materials:

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

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

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

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

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

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

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

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

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Critically interpret published scientific literature; differentiate data from interpretation
- Design and implement an original research project that develops multiple hypotheses, predictions from hypotheses, data-gathering strategy, data analysis, evaluation of uncertainties, interpretation, and literature review
- Present and interpret results of original research, both orally and in writing, using standard geoscience reference tools, formats and conventions (including statistics, georeferencing, plotting, etc.)
- Establish competency in solving quantitative problems, using correct units and significant figures, and representing geologic data on cross-sections and maps.

Required Courses

- GEOL 501 - Current Topics in Geology **Credits:** (3)
- GEOL 502 - Regional Field Geology of the Pacific Northwest **Credits:** (2)
- GEOL 503 - Introductory Graduate Research Methods **Credits:** (3)
- GEOL 504 - Graduate Seminar Series **Credits:** (1) (Must be taken for 6 credits)
- GEOL 595 - Graduate Research **Credits:** (1-10) (Must be taken for 9-15 credits)

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

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

Total Credits: 60

College and Department Information

Geological Sciences Department
College of the Sciences

Health Sciences Department

College of Education and Professional Studies
Ellensburg
Dorothy Pursler Hall., room 101
Mail Stop 7571
509-963-1912

www.cwu.edu/health-science

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

Faculty and Staff

Chair

Ethan A. Bergman, PhD, RDN, CD, FADA, FAND

Clinical Physiology Program Director

Vincent M. Nethery, PhD

Emergency Medical Services- EMS Paramedicine Program Director

Douglas Presta DPM, NR-Paramedic

Exercise Science Program Director

Timothy R. Burnham, PhD

Food and Nutrition Sciences Program Director

David L. Gee, PhD

Medical Director

Kenneth Lindsey

Public Health Director

Tishra Beeson, PhD, MHP

Melody Madlem, PhD

Professors

Ethan A. Bergman, PhD, RDN, CD, FADA, FAND, nutrition and dietetics

Timothy R. Burnham, PhD, clinical physiology, sport physiology, human anatomy

Leonardo J. D'Acquisto, EdD, sport physiology, kinesiology, human anatomy

James DePaepe, PhD, clinical and sport physiology, neurophysiology, and research

David L. Gee, PhD, nutrition and metabolism, nutrition and chronic diseases, nutritional epidemiology

Susan Hawk, PhD, RDN, dietetics, clinical nutrition

Melody Madlem, PhD, public health

Vincent M. Nethery, PhD, clinical physiology, sport physiology, environmental physiology, human anatomy

Associate Professors^[SEP]

Dana Ogan, MS, RDN, CD, dietetic internship director

Rebecca Pearson, PhD, MPH, public health

Kelly Pritchett, PhD, RDN, sports nutrition

Robert Pritchett, PhD

Karen Roemer, PhD, biomechanics, clinical mechanics, kinematics and kinetics

Nicole Stendell-Hollis, PhD, MS, RDN, obesity, nutrition and chronic disease

Assistant Professors^[SEP]

Tishra Beeson, PhD, MPH, public health

Tefare Belay, PhD, nutrition

Jill Hoxmeier, PhD, public health

Eric Foch, PhD

Casey Mace-Firebaugh, PhD, MPH, public health

Douglas Presta, DPM, NR-Paramedic

Lecturers^[SEP]

Steve Chrisman, paramedicine

Hillary Conner, exercise science

Ryan Gallindo, exercise science

James Pierce, paramedicine

Staff^[SEP]

Jan Clark, secretary supervisor

Bryan Contreras, MS, instructional classroom support technician- clinical physiology and exercise science

Lucinda Engel, instructional classroom support technician- food science

Beth Snider, office assistant

Department Information

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

Admission

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Master of Public Health

The Master of Public Health program at Central Washington University is offered through the Department of Health Sciences. The public health profession focuses on preventing disease, addressing inequities and developing policies and programs that help communities achieve optimal health and wellbeing. Our program aims to educate and empower the emerging generation of public health leaders. As the most frequently awarded graduate degree in the public health profession, the MPH prepares students for applied public health practice and leadership in diverse environments such as local, state, and federal agencies, hospitals and clinics, community-based and non-profit organizations, research institutions and other agencies in both domestic and global settings. All students are required to complete a capstone portfolio, including either project-based or research theses.

The MPH program at Central Washington University is a 56-credit hour program that is designed to be completed in two years of full-time enrollment. Part-time, hybrid and distance-learning options are also available.

Admission Requirements

1. Applicants to the MPH program at CWU are required to submit the following materials by the admissions deadline:
2. Transcripts from a completed undergraduate degree program. Unofficial transcripts will be accepted in the event of a pending graduation date, and official transcripts must be received prior to matriculation.
3. Official GRE examination scores. The GRE must have been completed within the past 5 years. The GRE examination requirement will be waived for students who have completed the CWU Rural and Community Health Graduate Certificate.
4. Professional writing sample of 1,000 words or more. Examples may include: Peer reviewed manuscript, policy analysis, technical report, or white paper on which the applicant is the primary author.
5. Two (2) letters of recommendation. The admissions committee places preference on one letter from an academic reference and one from a professional or community reference.
6. Resume/CV
7. Cover Letter or Personal Statement of 1 page or less
8. Application fee to the CWU School of Graduate Studies and Research

Graduation Requirements

1. Complete the approved course of study with a cumulative GPA of 3.0 or higher, AND within the statute of time limitations designated by the Graduate School

2. Complete the required cumulative experience in public health, including both (a) portfolio collection of artifacts demonstrating mastery of approved core competencies, and (b) successful completion of graduate thesis or project under the guidance of a graduate committee.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Recognize and articulate the dynamic, systemic linkages between biological, environmental, behavioral and social determinants of both individual and population health
- Design, implement and evaluate strategies that improve health at the individual, community, and population level
- Apply principles of cultural competence, diversity, and equity to identify and develop solutions to address health disparities in a variety of unique and diverse settings
- Collect, manage, and organize data to inform different audiences in a variety of communication formats
- Identify basic structures, organization, financing and delivery of public health and health services in the United States and describe how they impact the health of its population
- Apply critical data collection, analysis, and interpretation techniques commonly used to summarize population health problems, evaluate health outcomes, and make evidence informed decisions in public health
- Demonstrate ethical decisions, leadership skills, and professional values implicit in the public health profession and be able to articulate the effect of such decisions on equity, social justice, and human rights
- Demonstrate skills in effective management of public health programs and collaborative partnership development for health improvements at the population level

Required Courses Credits: 47

- PUBH 501 - Foundational Readings and Theories of Public Health **Credits:** (3)
- PUBH 524 - Biological and Environmental Determinants of Health **Credits:** (3)
- PUBH 525 - Social and Behavioral Determinants of Health **Credits:** (3)
- PUBH 550 - Advanced Health Policy and Systems **Credits:** (3)
- PUBH 571 - Program Planning **Credits:** (4)
- PUBH 572 - Program Implementation and Evaluation **Credits:** (4)
- PUBH 581 - Advanced Epidemiology **Credits:** (5)
- PUBH 620 - Study Design for Public Health **Credits:** (3)
- PUBH 621 - Advanced Quantitative Research Methods for Health **Credits:** (4)
- PUBH 622 - Qualitative Research Methods for Health **Credits:** (4)

- PUBH 651 - Public Health Leadership and Ethics **Credits:** (3)
- PUBH 675 - Portfolio Development Seminar **Credits:** (2)
- PUBH 700 - Graduate Capstone in Public Health **Credits:** (1-6) (Must be taken for 6 credits.)

Department-Approved Electives Credits: 9

Select from the following pre-approved courses:

- ENST 444 - Environmental Policy Formulation **Credits:** (4)
- ENST 460 - Environmental Law **Credits:** (5)
- FCL 434 - Diversity in Families **Credits:** (4)
- FCL 438 - Attachment Theory and Practice **Credits:** (4)
- NUTR 447 - Community Nutrition **Credits:** (3)
- PSY 415 - Behavioral Medicine and Health Psychology **Credits:** (4)
- PSY 438 - Substance Abuse and Dependence **Credits:** (5)
- PSY 447 - Psychology of Adolescence **Credits:** (4)
- PSY 452 - Adult Development and Aging **Credits:** (4)
- PSY 456 - Industrial and Organizational Psychology **Credits:** (4)
- PUBH 409 - Community Mental Health Issues and Strategies **Credits:** (3)
- PUBH 412 - Aging and Public Health **Credits:** (3)
- PUBH 420 - Women's Health Issues **Credits:** (4)
- PUBH 422 - Community Health Promotion and Education **Credits:** (4)
- PUBH 424 - Maternal and Child Health **Credits:** (3)
- PUBH 440 - Public Health Communication **Credits:** (3)
- PUBH 448 - Sexual Health **Credits:** (4)
- PUBH 460 - Public Health Ethics **Credits:** (3)
- PUBH 470 - Population Health Assessment and Research **Credits:** (5)
- PUBH 475 - Community Health Administration **Credits:** (3)
- PUBH 480 - Grant Seeking and Administration in Public Health **Credits:** (3)
- SHM 471 - Fundamentals of Industrial Hygiene **Credits:** (4)
- SHM 477 - Environmental Management **Credits:** (4)
- FCL 503 - Family Communication **Credits:** (4)
- FCL 539 - Families and Public Policy **Credits:** (4)
- FCL 547 - Families and Poverty **Credits:** (4)
- PUBH 513 - Health Disparities in Rural and Frontier Communities **Credits:** (3)

Total Credits: 56

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Integrative Human Physiology, MS

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

Required Courses

- IHP 551 - Metabolism and Skeletal Muscle **Credits:** (5)
- IHP 552 - Cardiopulmonary Physiology **Credits:** (5)
- IHP 553 - Laboratory Techniques in Stress Physiology **Credits:** (5)
- IHP 557 - Research Design **Credits:** (4)
- IHP 560 - Inferential Statistics **Credits:** (4)
- IHP 564 - Gross Human Anatomy: Cadaver Dissection **Credits:** (1) (Must be taken for 2 credits)
- IHP 575 - Musculoskeletal Biomechanics **Credits:** (3)
- IHP 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 11

A minimum 11 credits from following courses:

- IHP 555 - Environmental Stress and Human Performance **Credits:** (3)
- IHP 556 - Ergogenic Aids and Human Performance **Credits:** (3)
- IHP 559 - Applied Kinesiology **Credits:** (3)
- IHP 562 - Clinical Exercise Physiology (Put on reserve 9/16/18) **Credits:** (3)
- IHP 595 - Graduate Research **Credits:** (1-6) (Other electives by advisement)

Total Credits: 45

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Nutrition, MS

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Apply evidence-based guidelines, systematic reviews and scientific literature in the completion of their thesis.
- Demonstrate professional attributes such as attending a state, regional or national conference, and skills such as writing/preparing professional communications.
- Develop and demonstrate effective communications skills using oral, print, and visual formats.
- Prepare and analyze quality of data and develop a plan for intervention.

Required Courses

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

Department-Approved Electives Credits: 21

Total Credits: 45

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Rural and Community Health Graduate Certificate

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

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

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

Admission Requirements

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

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

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

Graduation Requirements

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

Required Courses

- PUBH 475 - Community Health Administration **Credits:** (3)

- PUBH 513 - Health Disparities in Rural and Frontier Communities **Credits:** (3)
- PUBH 522 - Community Health Communication and Promotion **Credits:** (4)
- PUBH 571 - Program Planning **Credits:** (4)
- PUBH 572 - Program Implementation and Evaluation **Credits:** (4)
- PUBH 580 - Grant Seeking and Administration in Public Health **Credits:** (3)

Department-Approved Electives Credits: 3

Students will select an additional 3 credits of advisor-approved electives.

Total Credits: 24

College and Department Information

Health Sciences Department
College of Education and Professional Studies

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

History Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 100
Mail Stop 7553
509-963-1655
www.cwu.edu/history
See website for how this program may be used for educational and career purposes.

Faculty and Staff Chair

Roxanne Easley, PhD

Graduate Director

Jason Knirck, PhD

Professors

Roxanne Easley, PhD, Russia, Eastern Europe
Daniel Herman, PhD, U.S. pre-1877, U.S. West, Native American
Jason Knirck, PhD, Ireland, Britain, British Empire
Marilyn Levine, PhD, Modern China
Stephen Moore, PhD, Pacific Northwest, foreign relations, social studies education
Marji Morgan, PhD, 19th century British

Associate Professors

Jason Dormady, PhD, Modern Mexico and Latin America, U.S. Borderlands

Assistant Professors

Chong Eun Ahn, PhD, Modern East Asia
Lacy Ferrell, PhD, Africa

Lecturers

Albert Miller, MA
Kenneth Munsell, MA
John Streepy, MA

Emeritus Professors

Karen J. Blair, PhD, 20th century U.S., Women
Beverly Heckart, PhD, Germany, Europe
Zoltan Kramar, PhD, Ancient World
Larry Lowther, PhD, Colonial and Revolutionary America
Kent Richards, PhD, American West, Pacific Northwest

Staff

K. Angie Hill, secretary

Master of Arts History

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

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

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

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

Graduate Fields of Study

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

Colonial/Revolutionary North America
19th Century U.S.
20th Century U.S.
U.S. Foreign Relations
U.S. West
U.S. Environmental History
U.S. Social History
U.S. Cultural History
Native American History
Pacific Northwest History
Modern Britain and the Empire
Modern Ireland
Modern France
Modern East Asia

Latin American cultural history
 Latin American religious history
 Latin American state formation
 Modern Mexico
 Colonial Mexico
 Pre-Imperial Russia
 Imperial Russia
 Russian Empire
 The Soviet Union
 African Health and Healing
 African Childhood and Education
 African Gender
 Urban Africa
 Pre-colonial Africa
 Colonial Africa
 Imperialism
 Environmental History
 Urban History
 Comparative Colonialism
 Comparative Gender
 Comparative Revolutions
 Comparative Borderlands
 Comparative Nationalism

Thesis Requirements and Timeline

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

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

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

Project Requirements and Timeline

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

Exam Requirements and Timeline

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

Foreign Language Requirement

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

History, MA

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

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

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

Written examination: This option consists of an eight-hour written exam given at the end of one's graduate career. It is designed for students who do not plan to pursue a PhD in

history. It is especially useful for secondary school teachers who want to attain the MA in a timely manner.

Graduate Fields of Study

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

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

Thesis Requirements and Timeline

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

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

Once your advisor approves your prospectus, she or he will assist you in assembling a thesis committee composed of three historians or, in rare cases, two historians and one academic specialist from outside the department (as approved by the

advisor). The prospectus must be approved by the student's advisor and defended before the student's assembled thesis committee before the end of the third quarter or before the completion of 30 credits, whichever comes last. By the end of the fourth full quarter, the student must submit at least one completed chapter of the thesis to the thesis director/advisor for approval. Students who do not meet the above deadlines for submission/approval of a prospectus and chapter may not be permitted to continue to pursue the thesis option. After the thesis is complete, the student will defend his/her findings before his/her committee. The final draft of the thesis (the draft to be defended) must be given to both secondary advisors at least three weeks in advance of the defense date.

Project Requirement and Timeline

As with the thesis, students who choose the project option must enlist an advisor and submit to her/him a short research prospectus (see thesis requirements, above, for prospectus guidelines). 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 approved by the student's advisor and defended before the student's assembled committee before the end of the third quarter or before the completion of 30 credits, whichever comes last. By the end of the fourth full quarter, the student must submit a significant part of the project to her/his director/advisor for approval. Students who do not meet the above deadlines may not be permitted to further pursue the project option. After the project is completed, the student will defend his/her work before his/her committee.

Exam Requirements and Timeline

Students who choose the exam option must select an advisor by the beginning of the third quarter or before completion of 20 credits, whichever comes last. In advance of the exam, the exam director/advisor will work with the student to choose a committee and to delineate a major field (see list of fields above). In consultation with the advisor, the student will then develop a major field bibliography consisting of at least 30 books that must be read in preparation for the exam. The eight-hour exam will consist of three (3) written questions. After the exam is completed, the student must defend her/his answers before the committee.

Foreign Language Requirement

At the discretion of the advisor, students 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.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Describe and analyze the variety of historical methods.
- Describe and analyze the development of historical periodization, e.g., "Early Modern Europe."
- Describe and compare scholarly interpretations of a particular field of historical investigation.
- Produce original interpretations of a historical period or theme.
- Canvass and make full use of historical resources whether digital, print, or other, and will cite that work in appropriate scholarly format.

Required Courses

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

Students must take 10 credits of the following:

- HIST 512 - History Graduate Readings Seminar **Credits:** (5)
This course may be repeated.

Department-Approved Electives Credits: 24

- Choose 9 credits from 400-500 level course in History or other approved fields (courses must pertain to student's thesis).
- Choose 15 credits from 500 level courses in History

Total Credits: 45

College and Department Information

History Department
College of Arts and Humanities

Individual Studies Master Program

School of Graduate Studies and Research
Ellensburg
Barge Hall, room 214
Mail Stop 7519
509-963-3101

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

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

Program Director

Kevin Archer, Dean, School of Graduate Studies and Research

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- This course generally must occur by the end of year 1.
- The ISM committee chair may use an established course within his/her department or create one for the purpose of this particular student, but not both.
- If this course is created as a 596 course, it will not count towards the 6 units of 596 credit.
- During the course, the student will write a proposal that defines the requirements for successfully completing the creative expression project. The

proposal will be forwarded to the chair of the ASC at the end of the course.

- During the course, the ISM committee chair will mentor the student in writing the proposal, performing the research, assisting in developing a timeline, and assisting in any other issues necessary for a timely completion of the project.

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

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

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

- Complete and submit a formal application, in accordance with the instructions in the School of Graduate Studies and Research application packet, including any required application fees.
- Have the minimum GPA necessary for admission to graduate school as outlined in the graduate catalog for the last 90 quarter or 60 semester credit hours elected.
- The general GRE must be taken if the home department of the ISM committee chair requires the exam for admission to the home department graduate program. The dean of the School of Graduate Studies and Research and/or the ASC of the Graduate Council reserves the right to request GRE scores from an ISM applicant.
- For international applicants from non-English speaking countries, the TOEFL or IELTS test must be taken. The applicant must achieve the minimum score for the respective test outlined in the graduate catalog. If the home department of the ISM committee chair requires TOEFL or IELTS scores higher than what is required by the School of Graduate Studies and Research, then the applicant must meet those higher standards.
- For a traditional thesis or an ISM project that will be writing intensive, the applicant must include a minimum 5-page writing sample in the field/one of the fields being proposed for the ISM. The proposal should be double-spaced with 12-point font. For an ISM project proposal, evidence needs to be submitted to the ASC of the Graduate Council that the student has the ability to complete the ISM (e.g., if a student

wants to produce a film for an ISM project, then submission of a short film the student has done would meet this requirement).

- Work with the ISM committee chair (see below) to complete and submit a Course of Study form (obtained from the School of Graduate Studies and Research website) that lists every course the student intends to take to complete the ISM:
 - at least 30 units must be 500 level and above and a strong argument must be made for including the courses chosen in the course of study.
 - these must be established courses within actual and current programs at CWU. No courses at the 300 level or below may count towards the ISM.
 - only 6 units of course work may be Individual Studies or Special Topics courses (e.g., 596s). Any such course must provide outcomes and assessment, and be vetted by the ASC if the Graduate Council.
 - one (1) of the courses must be a course that prepares the student to write a thesis or to define the parameters of their project (see above).
 - the Course of Study must include six credits of 700 for thesis work or four 700 credits for the project option.
 - the Course of Study must add up to a minimum of 45 credits.
 - only 15 units of graduate-level course work may be transferred to an ISM course of study. Reasons for transferring this course work must be justified.
- Work with the ISM committee chair to write and submit a letter of application or Statement of Intent that:
 - provides a rationale for the proposed ISM.
 - identifies similar or relevant programs within graduate programs of American universities, and discusses in detail the one which the CWU student and the ISM committee chair (see below) will use a template for the Course of Study.
 - explains the aptness of the degree to the student's objectives after graduation.
 - justifies the role of each course being proposed to the ISM template as a whole.
 - provides evidence of some expertise in each of the fields of study being proposed for the ISM. *Relevant undergraduate coursework or relevant work experience would satisfy this criteria.*
 - provides evidence of a culminating experience (e.g., thesis, research project, exam, capstone course, etc.) in the undergraduate career that demonstrates the ability to organize, research, and express orally and/or in writing, complex and developed ideas. Relevant work experience may be substituted for the culminating undergraduate experience.
- Submit short commitment letters obtained from the non-chair ISM committee members from their department chairs stating support for the workload effort being expended by the committee members.
- Submit a letter from the ISM committee that will function as a contract between the student and ISM committee chair (see ISM committee chair duties section).
- Work with the ISM committee chair to devise and submit a Statement of Learner Outcomes. Learner outcomes are critical to the success of CWU degree programs. As a result, each ISM candidate is expected

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

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

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

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

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

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

Examinations and Assessment: An oral final examination is required on work completed in partial fulfillment of the ISM degree requirements. The examination standards must be aligned with that of the department that houses the ISM committee

chair. Some graduate committees may also require a written examination as well. The examination process is intended to assure that the student has met the objectives of her or his goal statement and that the learner outcomes have thus been achieved. If the student performs satisfactorily on the examination, the student's ISM committee will write a summary statement of the student's accomplishments and competencies for inclusion in the student's permanent file.

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

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

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Individual Studies, MA, MEd, MFA, MS

School of Graduate Studies and Research
Ellensburg
Barge Hall, room 305
509-963-3101
www.cwu.edu/masters/cwu-graduate-programs

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

Program Director

Kevin Archer, Dean, School of Graduate Studies and Research

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

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

- The evidenced qualifications of the applicant and evidence the applicant has the ability to complete the proposed ISM

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

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

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

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

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

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

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

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

will include the dean of the School of Graduate Studies and Research.

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

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

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

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

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

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

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

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

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

- Complete and submit a formal application, in accordance with the instructions in the School of Graduate Studies and Research application packet, including any required application fees.
- Have the minimum GPA necessary for admission to graduate school as outlined in the graduate catalog for the last 90 quarter or 60 semester credit hours elected.
- The general GRE must be taken if the home department of the ISM committee chair requires the exam for admission to the home department graduate program. The dean of the School of Graduate Studies and Research and/or the ASC of the Graduate Council reserves the right to request GRE scores from an ISM applicant.
- For international applicants from non-English speaking countries, the TOEFL or IELTS test must be taken. The applicant must achieve the minimum score for the respective test outlined in the graduate catalog. If the home department of the ISM committee chair requires TOEFL or IELTS scores higher than what is required by the School of Graduate Studies and Research, then the applicant must meet those higher standards.
- For a traditional thesis or an ISM project that will be writing intensive, the applicant must include a minimum 5-page writing sample in the field/one of the fields being proposed for the ISM. The proposal should be double-spaced with 12-point font. For an ISM project proposal, evidence needs to be submitted to the ASC of the Graduate Council that the student has the ability to complete the ISM (e.g., if a student wants to produce a film for an ISM project, then submission of a short film the student has done would meet this requirement).
- Work with the ISM committee chair (see below) to complete and submit a Course of Study form (obtained from the School of Graduate Studies and Research website) that lists every course the student intends to take to complete the ISM:
 - at least 30 units must be 500 level and above and a strong argument must be made for including the courses chosen in the course of study.
 - these must be established courses within actual and current programs at CWU. No courses at the 300 level or below may count towards the ISM.
 - only 6 units of course work may be Individual Studies or Special Topics courses (e.g., 596s). Any such course must provide outcomes and assessment, and be vetted by the ASC if the Graduate Council.
 - one (1) of the courses must be a course that prepares

the student to write a thesis or to define the parameters of their project (see above).

- the Course of Study must include six credits of 700 for thesis work or four 700 credits for the project option.
- the Course of Study must add up to a minimum of 45 credits.
- only 15 units of graduate-level course work may be transferred to an ISM course of study. Reasons for transferring this course work must be justified.
- Work with the ISM committee chair to write and submit a letter of application or Statement of Intent that:
 - provides a rationale for the proposed ISM.
 - identifies similar or relevant programs within graduate programs of American universities, and discusses in detail the one which the CWU student and the ISM committee chair (see below) will use a template for the Course of Study.
 - explains the aptness of the degree to the student's objectives after graduation.
 - justifies the role of each course being proposed to the ISM template as a whole.
 - provides evidence of some expertise in each of the fields of study being proposed for the ISM. *Relevant undergraduate coursework or relevant work experience would satisfy this criteria.*
 - provides evidence of a culminating experience (e.g., thesis, research project, exam, capstone course, etc.) in the undergraduate career that demonstrates the ability to organize, research, and express orally and/or in writing, complex and developed ideas. Relevant work experience may be substituted for the culminating undergraduate experience.
- Submit short commitment letters obtained from the non-chair ISM committee members from their department chairs stating support for the workload effort being expended by the committee members.
- Submit a letter from the ISM committee that will function as a contract between the student and ISM committee chair (see ISM committee chair duties section).
- Work with the ISM committee chair to devise and submit a Statement of Learner Outcomes. Learner outcomes are critical to the success of CWU degree programs. As a result, each ISM candidate is expected to prepare an acceptable goals statement in which anticipated learner outcomes are specified. These will be measured at the completion of the program as a partial means of determining whether each student has met degree requirements.

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

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

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

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

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

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

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

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

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

College and Department Information

Individual Studies Master Program
College of the Sciences

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Information Technology and Administrative Management Department

College of Education and Professional Studies
Samuelson, second floor, room 206
Mail Stop 7488
509-963-2611
www.cwu.edu/it-management
See website for how this program may be used for educational and career purposes.

Faculty and Staff Chair

Robert A. Lupton, PhD

Graduate Program Coordinator

Julie Bonner, DB, administrative management, information technology

Professors

Lori A. Braunstein, PhD, administrative management
Natalie Lupton, PhD, retail management and technology, administrative management
Robert A. Lupton, PhD, retail management and technology
Fen Wang, PhD, information technology

Associate Professors

Terry Alkire, PhD, administrative management, retail management and technology
Julie Bonner, DB, administrative management, information technology
Chester Claar, PhD, information technology, cybersecurity
Jaclyn Krause, PhD, information technology
Laura Portolese, DBA, administrative management
Hideki Takei, DBA, administrative management, retail management and technology
Robert Trumpy, EdD, LMHC, LCSW, administrative management
Nathan White, PhD, information technology, cybersecurity

Assistant Professors

Martin Bagaya, PhD, information technology, cybersecurity
Kurt Kirstein, EdD, administrative management

Lecturers

Cathy Anderson, PhD, retail management and technology
Peter Anthony, EdD, administrative management
Andreas Bohman, MS, CISSP, cybersecurity

Elizabeth Fountain, PhD, administrative management
Amanda Goertz, MEd, administrative management
Terry Linkletter, MS, administrative management, information technology
Susan Rivera, PhD, administrative management
Amber Simon, MBA, administrative management
Lori Thompson, PhD, administrative management
Deborah Wells, MS, cybersecurity, administrative management
Luke Williams, MBA, retail management and technology, administrative management

Staff

Libby Gibson, secretary supervisor
Elizabeth Henry, program manager
Rachel White, outreach assistant

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

ITAM MS, Administrative Management Specialization

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate in-depth knowledge and currency in core subject areas and area of specialization.
- Demonstrate the ability to understand the local and global significance of information technology management on individuals, organizations, and society.
- Have the ability to apply basic research methods in information technology management.
- Demonstrate the use of current techniques, skills and tools necessary for information technology management practice appropriate to the discipline.
- Have the ability to communicate effectively.
- Demonstrate advanced skills and knowledge in their specialization.

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative management expertise are in high demand. The information technology and administrative and administrative management master of science (MS-ITAM) provides a one-year professional program degree for post baccalaureate students to develop essential skills and knowledge to enhance organization competitiveness. The MS-ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals the opportunity to

learn critical skills for their ongoing professional success. The MS_ITAM offers courses blending high-demand technical skills with high-demand soft skills. A cutting-edge, relevant curriculum prepares individuals for the opportunity to learn critical skills for their ongoing professional success. The MS-ITAM graduate program has a common core curriculum (26 credits) with three specialization areas (16 credits): 1) Administrative Management and 2) Information Technology and 3) Cybersecurity Management. The programs are three academic quarters plus summer quarter (46 credits).

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

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

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

Program Description

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

ITAM MS Core Requirements

- ADMG 501 - ITAM Boot Camp **Credits:** (2)
- ADMG 525 - Global Managerial Communications **Credits:** (4)

- ADMG 531 - Financial Analysis in IT and Administrative Management **Credits:** (4)
- ADMG 545 - Research and Statistical Analysis of Data **Credits:** (4)
- ADMG 571 - Global Administrative Policy **Credits:** (4)
- ADMG 573 - Global Leadership and Supervision **Credits:** (4)
- ADMG 574 - Global Project Management **Credits:** (4)

Total Core Credits: 26

Administrative Management Specialization

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

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

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

Total Credits: 46

College and Department Information

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

ITAM MS, Cybersecurity Management Specialization

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate in-depth knowledge and currency in core subject areas and area of specialization.
- Demonstrate the ability to understand the local and global significance of information technology management on individuals, organizations, and society.

- Have the ability to apply basic research methods in information technology management.
- Demonstrate the use of current techniques, skills and tools necessary for information technology management practice appropriate to the discipline.
- Have the ability to communicate effectively.
- Demonstrate advanced skills and knowledge in their specialization.

ITAM MS Core

Program Overview

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

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

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

The MS-ITAM Master's Program is ideal for those interested in one of four areas of professional growth: career starters, career climbers, career changers, or career crossers. Career starters are recent graduates seeking a professional degree before entering workforce. The career climbers include professionals seeking

graduate degrees for advancing their industry specific careers. Career changers will find the MS-ITAM degree an important part of their strategy to move into new fields with the career crossers seeking cross-training to advance in current fields. For those professionals interested in continuing their education to the doctoral level at another institution, the MS-ITAM graduate degree also offers the thesis elective.

Program Description

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

ITAM MS Core Requirements

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

Total Core Credits: 26

Cybersecurity Management Specialization

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

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

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

Total Credits: 46

College and Department Information

ITAM MS, Information Technology Specialization

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate in-depth knowledge and currency in core subject areas and area of specialization.
- Demonstrate the ability to understand the local and global significance of information technology management on individuals, organizations, and society.
- Have the ability to apply basic research methods in information technology management.
- Demonstrate the use of current techniques, skills and tools necessary for information technology management practice appropriate to the discipline.
- Have the ability to communicate effectively.
- Demonstrate advanced skills and knowledge in their specialization.

ITAM MS Core

Program Overview

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

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

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

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

Program Description

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

ITAM MS Core Requirements

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

Total Core Credits: 26

Information Technology Specialization

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

Total Specialization Credits: 16

ITAM MS Options

Options to reach 46 credits:

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

Total Credits: 46

College and Department Information

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

ITAM MS, Structures of Data Analytics for IT Managers Specialization

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate in-depth knowledge and currency in core subject areas and area of specialization.
- Demonstrate the ability to understand the local and global significance of information technology management on individuals, organizations, and society.
- Have the ability to apply basic research methods in information technology management.
- Demonstrate the use of current techniques, skills and tools necessary for information technology management practice appropriate to the discipline.
- Have the ability to communicate effectively.
- Demonstrate advanced skills and knowledge in their specialization.

ITAM MS Core

Program Overview

In today's complex global environment, skilled professionals who possess both information technology and administrative

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

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

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

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

Program Description

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

ITAM MS Core Requirements

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

Total Core Credits: 26

Structures of Data Analytics for IT Managers Specialization

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

Total Specialization Credits: 20

Total Credits: 46

College and Department Information

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

Cybersecurity Management Graduate Certificate

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

Required Courses

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

Total Credits: 16

College and Department Information

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

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

IT Data Management Graduate Certificate

The CWU ITAM IT data management graduate certificate is for professionals who don't have time to complete a full-time graduate program yet desire a few specialized classes to help them offer additional value on their current job or be competitive at a new job. The IT Data Management Certificate program was designed to address the industry's need for skilled and educated professionals in IT data management. IT data management gatekeepers in the modern workplace require knowledge of data platforms to support the business. This high demand certificate features four IT data management courses.

Admission Requirements

ITAM requires the same admission criteria as the CWU Graduate School including English Language Proficiency tests. There is not a GRE or GMAT requirement for admission. Find out more at: www.cwu.edu/masters/future-cwu-graduate-students.

Graduation Requirements

See current requirements of the CWU Graduate School.

Program Requirements

For the most recent program requirements, please see the MS-ITAM website at www.cwu.edu/it-management/ms.

Required Courses

- IT 682 - Enterprise Analytics **Credits:** (4)
- IT 684 - Approaches to Data Mining for IT Managers **Credits:** (4)
- IT 686 - Approaches to Data Analytics for IT Managers **Credits:** (4)
- IT 688 - Reporting Data and Analytics **Credits:** (4)

Total Credits: 16

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

IT Leadership Graduate Certificate

The CWU ITAM IT Leadership Graduate Certificate is for professionals who don't have time to complete a full time graduate program yet desire a few specialized classes to help them offer additional value on their current job or be competitive at a new job. The IT Leadership certificate program was designed to address the industry's need for skilled and educated professionals in IT management. Leadership in the modern workplace requires agility to deal with highly complex situations. This high demand certificate features four administrative management courses.

Required Courses

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

Total Credits: 16

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

IT Management Graduate Certificate

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

Required Courses

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

- IT 682 - Enterprise Analytics **Credits:** (4)

Total Credits: 16

College and Department Information

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

Program Learner Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

International Studies and Programs

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

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

Executive Director, Office of International Studies and Programs

Ediz Kaykayoglu, MS

Associate Director, Office of International Studies and Programs

Nicki Kukar, MEd

Staff

Cheri Lince, administrative assistant
Raymond (Ray) Wells, office assistant
Stacy Soderstrom, international student recruiter
Rachel Gordon, project manager
Roslyn (Roz) Moes, international student advisor
Kathy Gallentine, international student advisor
Alexander Radi, SEVIS coordinator
Partick Smith, fiscal specialist II
Anna Miller, program coordinator

Program Information

The Office of International Studies and Programs (OISP) coordinates all internationally related activities on campus. This includes maintaining institutional linkages, facilitating faculty exchanges, recruiting international students, providing study abroad/exchange, and academic advising for both international students and American students, promoting English language acquisition through the Asia University America Program (AUAP), and the University English as a Second Language program (UESL), and collaborating with the academic deans and departments in support of the overall internationalization of the university curriculum.

OISP provides a variety of services to all segments of the university in order to meet the diverse needs of CWU's students,

faculty, international students, research scholars, and professors. The following services are offered through the OISP: study abroad/exchange advising (SAEP), advising to international students, English language training through the UESL program, and a unique English language and cultural learning experience for Japanese students from Asia University in Japan through AUAP.

Institutional Linkages

Central and the Office of International Studies and Programs (OISP) maintain active inter-institutional and organizational relationships with the following universities: Anhui University, China; Gunma Prefectural Women's University, Japan; Herzen State Pedagogical University, Russia; University of Pecs, Hungary; various countries in the International Student Exchange Program; Mexico; Kyoto University of Foreign Studies, Japan; Beijing Jiaotong University, China; Queensland University of Technology, Australia; Charles Darwin University, Australia; Griffith University, Australia; Macquarie University, Australia; University of Shimane, Japan; Shimane Women's Junior College, Japan; Takushoku University, Japan; University of Hull, United Kingdom; Universidad Austral de Chile, Chile; Pukyong National University, Korea; Kyundong University, Korea; Ewha Women's University, Korea; various countries in the AHA International; Beijing University, China; Universidad Anahuac del Sur, Mexico; Universite de Pau et des Pays de l'Adour, France; College Consortium for International Studies, various countries; American Institute for Foreign Studies, various countries; Centro de Investigaciones en Medio Ambiente y Salud (CIMAS), Ecuador; University of Washington Cadiz Program, Spain; Universidad Autonoma de Guadalajara, Mexico; Asia University, Japan; American Pacific University, Vietnam and Napier University, Scotland.

Active student and faculty exchange opportunities exist between CWU and these institutions.

International Students and Scholars

International students and scholars receive academic advising, advocacy, and immigration regulations and procedures assistance through OISP. Support services are available to all international students including those here for language training in the UESL department, to take part in an academic year exchange, or to obtain a bachelor or master's degree, in International, and Area Studies.

International and Area Studies

CWU offers Chinese, French, German, Japanese, Russian, and Spanish language courses. Students studying a language are encouraged to have international experience in order to learn more about the cultural context of the language. Regular degree programs are offered in world languages with specializations in Chinese, French, German, Japanese, Russian, and Spanish. The world language broad area major may include studying abroad in a country where the target language is taken.

Students can internationalize their undergraduate education by completing a major or minor in Asia Studies and/or Latino and Latin American Studies Program. There is also a minor in International Studies. These programs of study are interdisciplinary and incorporate courses in anthropology, art, economics, geography, history, languages, philosophy, and

political science. Other area-focused courses are also available throughout the academic year.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Graduate Preparation Program Certificate

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

Admissions Requirements

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

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

Reading: 7

Listening: 7

Speaking: 15

Writing: 17

or

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

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

Graduation Requirements

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

Required Courses

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

- ESL 100RV - Academic Reading and Vocabulary **Credits:** (3)
- ESL 100RW - Research Writing **Credits:** (3)

Total Credits: 12

College and Department Information

International Studies and Programs

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

Law and Justice Department

College of the Sciences
Ellensburg
Farrell Hall, room 309
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7580
509-963-3208
Fax: 509-963-3205

www.cwu.edu/law
See website for how these programs may be used for educational and career purposes.

Faculty and Staff Chair

Paul Knepper, PhD

Professors

Paul Knepper, PhD, theoretical criminology, history of crime, crime prevention
Rodrigo Murataya, PhD, criminal investigation, police-community relations, police personnel administration
Krystal Noga-Styron, JD, criminal law, crime and the media
Charles Reasons, PhD, LLB, criminology, criminal justice, law, comparative justice

Associate Professors

Teresa Francis, JD, LLM, criminal law, correctional law
Cody Stoddard, PhD, policing, courts, criminological theory, quantitative methods

Assistant Professors

Veronica Cano, PhD, research methods, community and social justice, juvenile justice
Roger Schaefer, PhD, corrections, research methods, criminal justice policy

Senior Lecturer

Robert Wes Clogston, MS, law enforcement, comparative criminal justice, police personnel administration

Lecturers

Saul Chacon, MA, corrections, policing
R. Shaffer Claridge, JD, civil practice, courts and trails, legal

writing, legal research
Robert Moore, MA, corrections, correctional counseling

Staff

Dalton Neiffer, BA, internship coordinator
Emily Veitia, MS, secretary supervisor

Program Description

The M.S. in Law and Justice is designed to serve two distinct groups: (1) those in law and justice fields with professional experience, and (2) those without professional experience who aspire to law and justice careers, including research and data analysis.

The M.S. program focuses on the concept of empirical and research based practices in criminal justice, criminology, law, social justice, and public policy. Classes are designed to provide students with an advanced understanding of the mechanics of social science research and how research informs best practices in the field. Core classes in the program provide students with the detailed knowledge of social science methods of inquiry in Law and Justice where elective courses allow students understand how the science is applied to practice. During the culminating experience, students use social-scientific inquiry to address current issues and challenges in Law and Justice

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

Program Delivery

With the idea of accommodating a diverse group of students, the courses M.S. in Law and Justice program are typically delivered in person during the evenings or online.

Admission Requirements

Applicants should have the following:

1. a bachelor's degree related to the social sciences
2. a statement of objectives and purpose that outlines how the M.S. in Law and Justice would apply to their future goals
3. three letters of recommendation
4. an undergraduate GPA of 3.0 or higher
5. applicants may include a writing sample as a supplement to their application.

All materials for admission consideration should be submitted to the Central Washington School of Graduate Students and Research. Applications will be accepted in early January and review of applications will occur around mid-March. Applications after mid-March will be accepted and admission decisions after this point will be made on a rolling bases based on program capacity.

M.S. in Law and Justice: 4 +1 Option:

Overview

The Law and Justice Department's 4 + 1 program is designed to allow students, who meet eligibility criteria, to enroll in select 500 level courses during their Senior year to allow them to potentially complete the M.S. in Law and Justice the following year. Ultimately, this allows students to complete their M.S. degree in Law and Justice in one year following completion of the bachelor's degree.

Requirements

In order to participate in the 4+1 program, students must:

1. meet with the graduate director, or other designee of the department, to discuss planning and expectations in program.
2. apply for admission to the M.S. in Law and Justice 4+1 program during the junior year.
3. have completed LAJ 400, or an equivalent research methods course approved by the Law and Justice Department, with a B or higher prior to Fall of senior year when students would be taking graduate level courses.
4. maintain a cumulative GPA of 3.0 or higher
5. have declared a major in Law and Justice, or a major another approved social science area.

NOTE: In compliance with CWU Graduate Courses taken during the senior year may not be applied towards the undergraduate degree - they must be reserved for graduate credit only.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Law and Justice, MS

Program Description

The M.S. in Law and Justice is designed to serve two distinct groups: (1) those in law and justice fields with professional experience, and (2) those without professional experience who aspire to law and justice careers, including research and data analysis.

The M.S. program focuses on the concept of empirical and research based practices in criminal justice, criminology, law, social justice, and public policy. Classes are designed to provide students with an advanced understanding of the mechanics of social science research and how research informs best practices in the field. Core classes in the program provide students with the detailed knowledge of social science methods of inquiry in Law and Justice where elective courses allow students understand how the science is applied to practice. During the culminating experience, students use social-scientific inquiry to address current issues and challenges in Law and Justice

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

Program Delivery

With the idea of accommodating a diverse group of students, the courses M.S. in Law and Justice program are typically delivered in person during the evenings or online.

Admission Requirements

Applicants should have the following:

1. a bachelor's degree related to the social sciences
2. a statement of objectives and purpose that outlines how the M.S. in Law and Justice would apply to their future goals
3. three letters of recommendation
4. an undergraduate GPA of 3.0 or higher
5. applicants may include a writing sample as a supplement to their application.

All materials for admission consideration should be submitted to the Central Washington School of Graduate Students and Research. Applications will be accepted in early January and review of applications will occur around mid-March. Applications after mid-March will be accepted and admission decisions after this point will be made on a rolling bases based on program capacity.

M.S. in Law and Justice: 4 +1 Option:

Overview

The Law and Justice Department's 4 + 1 program is designed to allow students, who meet eligibility criteria, to enroll in select 500 level courses during their Senior year to allow them to potentially complete the M.S. in Law and Justice the following year. Ultimately, this allows students to complete their M.S. degree in Law and Justice in one year following completion of the bachelor's degree.

Requirements

In order to participate in the 4+1 program, students must:

1. meet with the graduate director, or other designee of the department, to discuss planning and expectations in program.
2. apply for admission to the M.S. in Law and Justice 4+1 program during the junior year.
3. have completed LAJ 400, or an equivalent research methods course approved by the Law and Justice Department, with a B or higher prior to Fall of senior year when students would be taking graduate level courses.
4. maintain a cumulative GPA of 3.0 or higher
5. have declared a major in Law and Justice, or a major another approved social science area.

NOTE: In compliance with CWU Graduate Courses taken during the senior year may not be applied towards the undergraduate degree - they must be reserved for graduate credit only.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Write in the language of the discipline, using the elements of style described in the Publication Manual of the American Psychological Association.
- Describe, perform, and use data analyses for particular data sets.

Core Requirements Credits: 25

- LAJ 511 - Theories of Crime, Deviance, and Justice
Credits: (5)

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

Seminar Electives Credits: 30

Select 6 of the courses from the following:

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

Competency Demonstration Credits: 5

Select one of the options below:

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

Total Credits: 60

College and Department Information

Law and Justice Department
College of the Sciences

Management Department

College of Business
Ellensburg (E)
Shaw-Smyser Hall, room 329
CWU-Des Moines (D)
CWU-Lynnwood (L)
Mail Stop 7485
509-963-3339
Fax: 509-963-2875
www.cwu.edu/business

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

Faculty and Staff Chair

William Provaznik, PhD

Professors

James Avey, PhD, management (E)
Peter J. Boyle, PhD, marketing (L)
Kathryn Martel, PhD, management (E)
Mark Pritchard, PhD, marketing (E)
Jeffrey L. Stinson, PhD, marketing (E)

Associate Professors

Wendy Cook, PhD, management (D)
Nancy Graber Pigeon, JD, business law (E)
Erica Holley, PhD, management (L)
Sayantani Mukherjee, PhD, management (L)
William Provaznik, PhD, management, Institute for Innovation and Entrepreneurship Director (E)
Todd Weber, PhD, management (E)
Theresa (Terry) Wilson, PhD, marketing (E)
Keke (CoCo) Wu, PhD, management (E)

Assistant Professors

Claudia Dumitrescu, PhD, marketing (D)
Timothy Hargrave, PhD, management (L)

Staff

Maxine Lennon, secretary senior

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

Mathematics Department

College of the Sciences
Ellensburg
Samuelson, room 208
Mail Stop 7424
509-963-2103
Fax: 509-963-3226
www.cwu.edu/math

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

Faculty and Staff

Associate Chair
Janet Shiver, PhD

Professors

Christine Black, PhD, mathematics education (Westside)
James Bisgard, PhD, analysis
Stuart F. Boersma, PhD, differential geometry, general relativity
Yvonne Chueh, PhD, actuarial science, statistics
Timothy Englund, PhD, group theory, representation theory, statistics
James D. Harper, PhD, harmonic analysis
Dominic Klyve, PhD, computational number theory, history of mathematics, statistics
Scott M. Lewis, PhD, mathematics education, history of mathematics
Aaron Montgomery, PhD, topology, algebra
Mark Oursland, EdD, mathematics education

Associate Professors

Jonathan Fassett, PhD, topology, dynamical systems
Emilie Hancock, PhD, mathematics education
Jean Marie Linhart, PhD, applied mathematics
Janet Shiver, PhD, mathematics education
Kathryn Temple, PhD, actuarial science, probability

Assistant Professors

Peter Klosterman, PhD, mathematics education
Sooie-Hoe Loke, PhD, mathematics
Brandy Wieggers, PhD, applied mathematics

Senior Lecturers

Molly Andaya, MAT, mathematics
Tim Brown, MAT, mathematics
Jim Miller, MAT, mathematics
Stephen (Steve) Stein, PhD, educational administration
Richard Trudgeon, MA, administration and curriculum

Lecturers

Jamie Fife, MAT, mathematics
Brent Hancock, PhD, mathematics education
Mathew Pruis, PhD., advance data analytics and data science
Tyler Suronen, MS, mathematics
Drewcilla Walter, MS, mathematics

Staff

Brenda Bland, secretary senior

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

Music Department

College of Arts and Humanities
Ellensburg
Jeryllyn S. McIntyre Music Building
Mail Stop 7458
509-963-1216
Fax: 509-963-1239
www.cwu.edu/music
See website for how these programs may be used for educational and career purposes.

Faculty and Staff

Chair

Todd Shiver, DMA

Interim Associate Chair

Bret Smith, PhD

Professors

Joseph Brooks, MM, clarinet, saxophone, woodwind methods
Chris Bruya, MM, jazz studies
Nikolas Caoile, DMA, orchestra, conducting
Mark Goodenberger, MM, percussion
John Harbaugh, MME, trumpet, jazz studies
Mark Lane, MM, music education, band
Daniel Lipori, DMA, music history, bassoon, double reed methods
Carrie Rehkopf-Michel, MM, violin, chamber music, Kairos Chamber Ensemble
John Michel, MM, cello, chamber music, pedagogy, Kairos Chamber Ensemble
Hal Ott, DM, flute, literature
John F. Pickett, DM, piano, literature, pedagogy
Vijay Singh, MAT, jazz studies, choir, voice
Jeffrey Snedeker, DMA, French horn, music history
Gary Weidenaar, DMA, choir, conducting, music education

Associate Professors

Gayla Blaisdell, PhD, voice, opera
Martin Kennedy, DMA, theory, composition
John Neurohr, DMA, trombone, brass pedagogy, brass literature
Bret Smith, PhD, music education, string pedagogy

Assistant Professors

Paul Bain, MM, bands, music education, conducting
Lewis Norfleet, MM, bands, music education, conducting
Mark Samples, PhD, musicology, general education
Melissa Schiel, DMA, voice, pedagogy

Lecturers

Tor Blaisdell, MM, voice, opera, history of rock
Scott Erickson, DMA, oboe, theory
Teresa Harbaugh, MM, class piano
Aaron Hirsch, MM, orchestra, conducting
Anna Jensen, MM, string bass
David McLemore, MM, tuba, euphonium, history of jazz
Adam Pelandini, MM, saxophone, theory, chamber music
Scott Peterson, DMA, wildcat chorus
Barbara Pickett, MM, piano, class piano
Michelle Rahn, DMA, viola, chamber music
Maria Roditeleva-Wibe, PhD, theory, world music
Leslie Schneider, MM, music education
Emelie Spencer, MM, voice, theory
Norm Wallen, MM, theory

Staff

Marcie Brown, program assistant
Allen Larsen, hall manager, audio technician, web manager
Teresa Larsen, secretary supervisor
Shannon Martin, fiscal specialist
Kirsten Neurohr, advisor/recruiter
Harry Whitaker, piano technician

Department Fees

All fees are billed to students' accounts.

- \$15 fee for each MUS 154 (Class Instruction) course (all sections except B and H).

- \$125 fee for 1 credit and \$250 fee for 2 credits each quarter of enrollment in MUS 164, 264, or 364 (Individual applied instruction).
- \$250 fee each quarter of enrollment in MUS 464 (Individual applied instruction).
- \$125 fee for 2 credits and \$250 fee for 4 credits each quarter of enrollment in MUS 564 and 664 (Individual applied instruction).
- \$125 fee each quarter of enrollment in X71 (Secondary applied instruction).
- \$40 fee each quarter for students enrolled in Vocal Jazz I
- \$40 fee for each scheduled student recital
- \$15 fee for each MUS 252, 253, and 254 (Class Instrumental Methods) course
- \$5 annual locker fee (Optional if you choose to get a locker)
- \$5 fee for students enrolled in Percussion Ensemble
- \$25 university tech fee covers use of electronic equipment used in all music courses. Part-time students enrolled in theory, class piano, composition, or electronic music courses will be assessed this fee.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Master of Music

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

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

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

At least one-third of the total credit requirements must be in the major field, including MUS 700 as required by the specialization; one-third in other music courses (including three credits of MUS 521 [Methods of Musical Research], six credits of music history, six credits of music theory, and three ensemble credits); and one-third may be elective courses in supportive areas from any discipline. At least 25 credits applied toward the degree must be at the 500 level or above. No more than 20 credits applied toward the degree may be at the 400 (senior undergraduate) level. No 300 level credits may be applied toward the degree. Students are expected to plan their program with a graduate advisor and committee.

Admission Requirements

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

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

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

Graduation Requirements

Graduate Colloquium

Accreditation by the National Association of Schools of Music (NASM) requires that music departments create "a traditional and/or virtual community of students and faculty to permit the formal and informal sharing of experience, ideas, and knowledge." (NASM Handbook X.B.4) The Graduate Colloquium is the means by which this community is created and fostered through opportunities for students to present and share their work, have formal and informal discussions with faculty and other guests, and share announcements and information of broader interest.

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate masters level research, writing, and presentation skills.
- Create a thesis or thesis project at a masters level, directed toward their professional and personal goals, as a culmination of their graduate work, in keeping with their major fields of study.
- Demonstrate masters level competency and progress in a specialized field, selected from musical composition, conducting, performance, performance-pedagogy, and music education.
- Demonstrate masters level knowledge in music theory, including a range of compositional styles and techniques.
- Demonstrate masters level knowledge and critical thinking in music history, including terminology, chronology of styles, composer and landmark work recognition.
- Demonstrate advanced performing skills and their knowledge of ensemble repertoire.

General Requirements for All Graduate Music Degrees

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

Other Studies in Music including below - Credits: 18

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

Department-Approved Electives Credits: 6-12

Elective courses in supportive areas.

Total Credits: 45

Specific Requirements for Major Fields:

A. Composition

1. Admission

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

2. Courses in the major field

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

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

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

3. Other studies

Other studies in music should include:

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

4. Thesis

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

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

B. Conducting

1. Admission

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

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

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

2. Courses in the major field

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

- MUS 541 - Advanced Conducting **Credits:** (3) (may be repeated)
- MUS 615 - Graduate Seminar in Music: Conducting **Credits:** (1-3) (may be repeated)

3. Other studies

Other studies in music should include:

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

4. Thesis

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

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

C. Performance

1. Admission

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

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

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

2. Courses in the major field

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

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

3. Other studies

Other studies in music should include:

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

4. Thesis

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

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

D. Pedagogy

1. Admission

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

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

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

2. Courses in the major field

- MUS 425 - Studio Pedagogy - appropriate to the major applied area (A-G-piano, voice, string, wind, brass, percussion) **Credits:** (3)
- MUS 524 - Applied Pedagogy in Music **Credits:** (3)
- MUS 564 - Major Applied Area (Individual Instruction) **Credits:** (2 or 4) (may be repeated) (minimum of 6 credits required)
- 3 additional credits in pedagogy, chosen from:
 - MUS 424 - Jazz Music Education
 - MUS 425 - A-G Studio Pedagogy (outside of major applied area)
 - MUS 426 - A-G Studio Literature (in the major applied area)
 - MUS 520 - Methods of Teaching Music Theory
 - MUS 616 - Graduate Seminar in Music: Pedagogy

3. Other studies

Other studies in music should include:

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

4. Thesis

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

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

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

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

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

E. Music Education

1. Admission

Admission to this program will be based upon:

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

2. Courses in the major field

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

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

3. Other studies

Other studies in music should include:

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

4. Thesis, Project, or Portfolio Examination

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

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

Final Examination

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

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

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

Graduate Cognate in Music

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

Admission

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

- Acceptance for admission to CWU graduate program
- Acceptance for admission to a major graduate program in music (by audition/interview)
- Acceptance for admission to the graduate cognate by separate audition/interview. This interview/admission

will normally be conducted during the first quarter of enrollment or later. It is not part of the primary admission process so as to avoid confusion of initial advising and enrollment. Acceptance for admission is also dependent on space available in the area, to be determined by faculty in that area.

Guidelines

- Students are allowed one graduate cognate in music.
- Students accepted into a cognate will have an assigned advisor, but will not need to form a graduate committee for the cognate final project or recital. This advisor will be responsible for evaluating the culminating recital or project and will also be a member of the student's graduate committee.
- Courses counted for the cognate must also be indicated on the course of study form, separate from general, specific and elective curricular requirements.
- Material and coursework covered in the cognate would be eligible for inclusion in the final examination, as approved by student's major graduate committee chair.

Content

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

Subject Areas

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

Individual Subject Area Requirements:

Composition

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

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

Conducting

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

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

Jazz Pedagogy

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

Required Courses

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

Music Education

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

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

Music History

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

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

Music Theory

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

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

Performance

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

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

Pedagogy

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

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

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

Music History Graduate Courses

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

- MUS 610 - Graduate Seminar in Music: Composer **Credits:** (1-3)
- MUS 612 - Graduate Seminar in Music: Music History/Literature **Credits:** (1-3)

Music Theory Graduate Courses

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

Ensemble Graduate Courses

- MUS 510 - Vocal Jazz Choir **Credits:** (1)
- MUS 513 - Flute Choir **Credits:** (1)
- MUS 514 - Brass Choir **Credits:** (1)
- MUS 515 - Chamber Orchestra **Credits:** (1)
- MUS 517 - Chamber Music Ensemble **Credits:** (1)
- MUS 529 - Percussion Ensemble **Credits:** (1)
- MUS 532 - Big Band **Credits:** (1)
- MUS 561 - Opera Workshop **Credits:** (1-2)
- MUS 562 - Opera Production **Credits:** (1-3)
- MUS 566 - Wind Ensemble **Credits:** (1-2)
- MUS 567 - University Choir **Credits:** (1-2)
- MUS 568 - Chamber Choir **Credits:** (2)
- MUS 577 - Orchestra **Credits:** (1-2)
- MUS 587 - Marching and Concert Band **Credits:** (1-2)
- MUS 588 - Symphonic Band **Credits:** (2)
- MUS 595 - Graduate Research **Credits:** (2)

College and Department Information

Music Department
College of Arts and Humanities

Physical Education, School Health, and Movement Studies Department

College of Education and Professional Studies
School of Education
Ellensburg
Dorothy Purser Hall, room 101
Mail Stop 7572
509-963-1911
Fax: 509-963-1848
www.cwu.edu/peshms

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

Faculty and Staff

Chair

Heidi Henschel Pellett, EdD

Professors

Heidi Henschel Pellett, EdD, physical education, pedagogy
Kirk Mathias, EdD, physical education, pedagogy
Rob Perkins, EdD, recreation, sport management

Associate Professors

Mark Perez, PhD, school health, pedagogy
P. Stefan Ward, PhD, physical education, pedagogy
Rory Weishaar, EdD, athletic administration
Therese Young, MA, dance

Assistant Professors

Judy Beard, PhD, school health, pedagogy
Brian McGladrey, PhD, CSCS, athletic administration
Gabrielle McNeillie, MFA, dance
Tanjian Liang, PhD, physical education, pedagogy
David Rolfe, EdD, recreation, sport management

Lecturer

Edward Callahan Jr., MS, RN, NDTR, CSCS, activity program

Staff

Marni Fox, program support supervisor I
Rafael Gomez-Vilchis, sport equipment manager
Debbie Nethery, pool manager

Master of Science

Health and Physical Education

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

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Athletic Administration, MS

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

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate clear and consistent evidence of a vision for an athletic program (or similar organization) that is effectively communicated to coaches, athletes, personnel and organization.
- Demonstrate competencies for improving programs and meeting the diverse needs of all coaches, athletes, and personnel in the organization. They will understand various leadership traits and styles.
- Understand the importance of operating an organization within the law and through risk-management practices.
- Demonstrate an understanding of the research process.

Required Courses

- HPE 510 - Issues in Health and Physical Education **Credits:** (3)
- HPE 546 - Advanced Administration of Athletics **Credits:** (3)
- HPE 557 - Research Methods and Design in Health and Physical Education **Credits:** (4)
- HPE 560 - Statistical Applications in Health and Physical Education **Credits:** (4)
- HPE 570 - Legal Liability and Risk Management **Credits:** (3)
- HPE 574 - Public Relations and Marketing in Athletics **Credits:** (3)
- HPE 583 - Leadership and Decision Making in Interscholastic Sports **Credits:** (3)
- HPE 584 - Mentoring of Coaches and Athletes **Credits:** (3)
- HPE 585 - Event, Facilities, and Scheduling Management of Sport **Credits:** (3)
- HPE 586 - Athletic Budgeting, Finance, and Fundraising **Credits:** (3)
- HPE 587 - Governing Organizations in Sports and Athletics **Credits:** (2)
- HPE 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for six credits)

- HPE 540 - Psycho-social Perspectives in Health and Physical Education **Credits:** (3)
- PE 590 - Cooperative Education **Credits:** (1-6) (Must be taken for 3 credits.)

Total Credits: 46

College and Department Information

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

Health and Physical Education, MS

The department of Physical Education, School Health, and Movement Studies at CWU offers the masters of science in health and physical education degree program designed to enhance the knowledge and skills necessary to be an effective teacher in school health and physical education. The fully online format is designed to meet the needs of professionals working in the educational field.

Although many applicants who enroll in the program already hold a teaching certification in health and physical education, those that do not have the endorsement may enroll to acquire the knowledge and skills to effectively teach health and PE as the program meets the academic requirements established by the Washington State Office of Superintendent of Public Instruction leading to certification in the endorsement area of Health and Fitness.

Admission Requirements

Applicants for the Masters of Science in Health and Physical Education program are expected to meet the admission requirements of the School of Graduate Studies and must have completed a baccalaureate degree from an accredited college or university (academic transcripts to be submitted)

Applicants must submit a copy of a valid teaching certification in Health/Physical Education or another endorsement area, and/or evidence of extensive related practical experience.

Please contact the HPE coordinator for more information about applying.

Graduation Requirements

All graduate students are required to have a minimum of a 3.00 cumulative grade point average in order to graduate with a master's degree from Central Washington University.

Current registered courses must be completed by the last day of the current quarter.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate clear and consistent evidence of a vision for an athletic program (or similar organization) that is

effectively communicated to coaches, athletes, personnel and organization.

- Demonstrate competencies for improving programs and meeting the diverse needs of all coaches, athletes, and personnel in the organization. They will understand various leadership traits and styles.
- Understand the importance of operating an organization within the law and through risk-management practices.

Required Courses

- HPE 540 - Psycho-social Perspectives in Health and Physical Education **Credits:** (3)
- HPE 557 - Research Methods and Design in Health and Physical Education **Credits:** (4)
- HPE 558 - Instructional Models in Physical Education **Credits:** (3)
- HPE 560 - Statistical Applications in Health and Physical Education **Credits:** (4)
- HPE 561 - Tactical Applications to Movement Development and Sport **Credits:** (3)
- HPE 562 - Pedagogical Design and Analysis in Physical Education **Credits:** (3)
- HPE 572 - Skills-based Health Education **Credits:** (3)
- HPE 573 - Pedagogical Strategies in School Health Education **Credits:** (3)
- HPE 577 - Curriculum and Assessment in Health and Physical Education **Credits:** (3)
- HPE 578 - Program Promotion and Grant Writing in Health and Physical Education **Credits:** (3)
- HPE 579 - Principles and Techniques of Supervision in Health and Physical Education **Credits:** (3)
- HPE 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)
- PE 560 - Systematic Analysis of Teaching Physical Education **Credits:** (3)

Total Credits: 47

College and Department Information

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

Physics Department

College of the Sciences
Ellensburg
Discovery Hall, room 139
Mail Stop 7422
509-963-2727
www.cwu.edu/physics

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

Faculty and Staff

Chair

Bruce Palmquist, PhD

Professor

Bruce Palmquist, PhD, science education

Associate Professors

Michael Braunstein, PhD, nuclear physics, astronomy
Andrew Piacsek, PhD, acoustics, computational physics

Assistant Professors

Erin Craig, PhD, computational biophysics
Cassandra Fallscheer, PhD, astronomy
Christopher Gilbreth, PhD, nuclear physics, cold atomic gases, computational physics
Nathan Kuwada, PhD, experimental biophysics
Darci Snowden, PhD, atmospheric physics
Benjamin White, PhD, condensed matter physics

Staff

Rachel Foss, secretary
Deanna Marshall, recruiting and advising specialist
Addison Wenger, instructional and classroom technician III
Peter Zencak, instructional and classroom technician IV

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

Political Science Department

College of the Sciences
Ellensburg
Farrell Hall, room 409
Mail Stop 7578
Phone: 509-963-2408
FAX: 509-963-1134

www.cwu.edu/political-science

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

Faculty and Staff**Interim Chair**

Paul Knepper, PhD

Professors

Michael A. Launius, PhD, comparative politics, Asian politics, international political economy, international politics
Barb Rieffer-Flanagan, PhD, political theory, comparative politics, politics of the Middle East, international human rights, religion and politics
Todd M. Schaefer, PhD, American politics, public opinion, congress, campaigns and elections, African politics, American presidency
Rex Wirth, PhD, public administration and public policy, international politics, Western Europe

Associate Professor

Gilberto Garcia, PhD, Latino politics and studies, Latin American politics, comparative politics, and U.S.-Mexico border relations

Emeritus Professors

Robert C. Jacobs, PhD, American law and politics
Bang-Soon Yoon, PhD, comparative politics, public policy, women and politics, Korean politics, East Asia politics, globalization studies

Senior Lecturers

Cameron Otopalik, PhD, international political economy, politics of North East Asia, political demography and comparative political development
Stefanie Wickstrom, PhD, environmental justice and politics, identity politics, social movements and environmental history

Staff

Jordynne Derrey, secretary senior
Christina Kruze, office assistant

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Public Administration, MS

Program Objectives

The MS-PA is a non-thesis required master degree program, for which students can complete their degree within a 12-month time period. The MS-PA in the political science department is designed: to provide relevant knowledge and skills to mid-career professionals or administrators working in the public, private, or non-profit sectors; to help the students to prepare for advancement in their occupations and positions with leadership roles through curricula focused on strengthening analytical and practical knowledge and skills in public sector management; and to help students to obtain competitive knowledge and skills through a comparative analysis of public administration and public policy as they work in a more complex, diverse, and changing administrative environment with increasing use of information technologies within a globalizing world.

Program Admission Requirements

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

- GPA of 3.0 for four-year undergraduate studies is required unless otherwise stated by CWU GSR.
- Students will not be required to take the Graduate Record Exam (GRE).
- Students will be required to have five years of professional experience in the public, private or non-profit sectors beyond a bachelor's degree from an accredited college or university.

- Three letters of reference will be required from students.
- Each student will also be required to submit a letter of interest indicating how the program fits into her/his professional goals.
- For international or English as a Second Language students, they will be required to take an English language proficiency test recognized as fulfilling the admission policy of CWU's School of Graduate Studies Research.
- Application Deadline and Materials: Students must comply with all deadlines and procedures for "applying to CWU" in the graduate admissions section of the CWU catalog.

Graduation Requirements

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

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate advanced knowledge of governance, administrative systems and management methods used in the public sector.
- Describe, perform and use common research designs and data analyses for public sector data sets.
- Write in the language of the discipline, using the elements of style described in the Publication Manual of the American Psychological Association.
- Describe, compare and analyze political, economic, social, and cultural elements that affect public administration and policy systems across international boundaries and settings.
- Develop in public managers an appreciation of the larger political environment and equip them with the tools to function effectively within those systems.

Required Courses Credits: 37

- POSC 520 - Public Sector Management and Administration **Credits:** (5)
- POSC 522 - Comparative Public Administration **Credits:** (5)
- POSC 526 - Evaluating Public Policy Effectiveness **Credits:** (5)

- POSC 550 - Administrative Laws and Regulations **Credits:** (5)
- POSC 689 - Capstone Project (Put on reserve 9/16/18) **Credits:** (5)
- POSC 700 - Master's Thesis and/or Examination **Credits:** (1-6)
- SOC 501 - Social Science Research Methods **Credits:** (5)
- SOC 566 - Organization Research and Assessment **Credits:** (5)
(NOTE: During the first quarter, students need to take POSC 520, SOC 501, and also either POSC 522 or POSC 526.)

Department-Approved Electives Credits: 10

Select 10 credits from the following list of courses upon the approval of the faculty advisor:

- POSC 521 - The Public Executive **Credits:** (5)
- POSC 523 - Public Finance and Budgeting (Put on reserve 9/16/18) **Credits:** (5)
- POSC 527 - Nonprofit Organization Administration (Put on reserve 9/16/18) **Credits:** (5)
- POSC 530 - State and Local Government (Put on reserve 9/16/18) **Credits:** (5)
- POSC 535 - Government Information Systems (Put on reserve 9/16/18) **Credits:** (5)
- POSC 537 - Intergovernmental Relations (Put on reserve 9/16/18) **Credits:** (5)
- POSC 560 - Comparative Public Policy **Credits:** (5)
- POSC 598 - Special Topics **Credits:** (1-6)

Total Credits: 47

College and Department Information

Political Science Department
College of the Sciences

Primate Behavior and Ecology Program

College of the Sciences
Ellensburg
Dean Hall, room 357A

509-963-3201
Fax: 509-963-3215
www.cwu.edu/primate

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

Program Director

Jessica A. Mayhew, PhD, anthropology, Dean Hall, room 341

Professors

Dan Beck, PhD, biology, ecology and behavior
Kara I. Gabriel, PhD, psychology, experimental psychology, biopsychology
Lori K. Sheeran, PhD, anthropology, primate behavior, primate conservation, biological anthropology
Lixing Sun, PhD, biology, ecology and evolution of animal behavior (especially communication systems), chemical ecology
R. Steven Wagner, PhD, biology, conservation population genetics, molecular evolution

Associate Professors

Matthew Altman, PhD, philosophy, applied ethics (including environmental ethics and ethics and animals), 19th century philosophy, ethics, social and political philosophy, philosophy of art, philosophy of law
Ralf Greenwald, PhD, psychology, general cognition, human neurophysiology, working memory, attention, language

Assistant Professor

J. Hope Amason, PhD, anthropology, political economy and globalization, politics of representation, race, class, and gender, museums, memorials, and heritage sites, tourism studies
Jessica A. Mayhew, PhD, anthropology, primate social behavior and socio-cognition, great apes, play behavior
Mary Radeke, PhD, psychology, child-language development, neuropsychology, experimental psychology
Rodrigo Renteria-Valencia, PhD, anthropology, environmental anthropology

Lecturers

Sofia Blue, PhD, anthropology, primatology, signal systems in nonhuman primates, research methodology
Mary Lee Jensvold, PhD, primatology, primate cognition, chimpanzee behavior
JB Mulcahy, MS, primatology, primate captive care, chimpanzee behavior

Staff

Penelope Anderson, secretary senior

Primate Behavior, MS

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

Students must complete at least 45 credits as outlined in an approved course of study filed with the Office of Graduate Studies and Research. The course of study is selected by advisement before completing 20 credits. Two quarters in residence are required.

Admission Requirements

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

1. An undergraduate degree in anthropology, psychology, or biology. Before admission, program faculty will evaluate the academic course work and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate

work which need to be overcome before entrance into the program.

2. Students must submit GRE scores for the general test.
3. International students for whom English is a second language must provide TOEFEL scores to demonstrate English proficiency.
4. Students must arrange for a graduate faculty advisor in the program to serve as their major advisor.

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

Special Programs

The PBE library room in room 204 Dean Hall houses several hundred books, articles, and DVDs/videotapes related to primatology. The room includes a TV, DVD player, and four computer work stations.

The PBE Program has available for student use one video camera, two digital cameras, two DVD players, one television, observational software (The Observer), and two PDAs for using this software at remote locations. The Observer software can also be used on two desktop computers.

Students and faculty who have been approved to conduct research at CHCI may have access to resources housed there. These include an extensive library of articles, books, videos, and DVDs, and more than 20 years of archived video footage collected from the chimpanzees living there. CHCI also houses several VCRs, TVs, DVD players, video cameras, and computers that students can use in research projects conducted at CHCI. Access is considered on a case-by-case basis in consultation with the director and associate director of CHCI.

The Anthropological Genetics Laboratory in Dean Hall, room 232 A, is equipped for performing DNA extractions, PCR (Polymerase Chain Reaction) amplification, genotyping, and DNA sequencing. Software for analyzing genetic data and performing phylogenetic analysis is also available.

The anthropology department owns casts of fossil and living nonhuman primates. These span a variety of taxa including prosimians, monkeys, and apes. Access is considered on a case-by-case basis in consultation with the anthropology faculty.

The PBE Program is affiliated with the Conservation and Biodiversity Field School in China, which is coordinated through the CWU Office of International Study and Programs.

Graduate Committee

The student will have at least a three-member graduate committee selected in consultation with the thesis committee chair.

Program Fees

Lab fees are attached to the following courses conducted at the Chimpanzee and Human Communication Institute: PRIM 595C, PRIM 700, and PRIM 516.

Program Outcomes

For information on program outcomes, please go

to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Primate Behavior, MS

This program is interdisciplinary and emphasizes the approaches and contributions to primatology made by biologists, anthropologists, psychologists, and philosophers. It includes Required Courses (totaling 30 credits) and Department Approved Elective courses (totaling 18 credits) that are selected in consultation with the student's advisor. Students must complete at least 48 credits as outlined in an approved course of study filed with the School of Graduate Studies and Research. The course of study is selected by advisement before completing 20 credits. Two quarters in residence are required.

Admission Requirements

In addition to general guidelines for admission to CWU Master's programs, applicants for admission to Primate Behavior must have the following qualifications:

1. Applicants must have an undergraduate degree in anthropology, psychology, biology, or a related field. Before admission, program faculty will evaluate the academic course work and experience of all applicants for admission, and will recommend remedial course work if, in their judgment, there are deficiencies in pre-baccalaureate work which need to be overcome before entrance into the program. Admission to the program and continuation in it may be conditional on the applicant's satisfactory completion of remedial courses. Such courses will not count toward the program credit requirement, but in some cases they may be taken after admission to the program.
2. Applicants must submit GRE scores for the general test.
3. International applicants for whom English is a second language must provide TOEFEL scores to demonstrate English proficiency.
4. Applicants must arrange for a graduate faculty advisor in the program to serve as their major advisor.

Graduation Requirements

The student must have a three-member thesis committee selected in consultation with the thesis committee chair. The student may choose either thesis option or project option in partial fulfillment of graduation requirements.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate knowledge of the field of primatology, including current issues, methods, theories, and topics of study.
- Understand the interdisciplinary nature of primatology and how biologists, psychologists, and anthropologists approach the study of primates.
- Value biodiversity.

- Gain skills that enhance their professional development.
- Effectively communicate.

Required Courses Credits: 30

- PRIM 503 - Current Issues in Primatology **Credits:** (4)
- PRIM 504 - Primate Culture and Cognition **Credits:** (4)
- PRIM 505 - Ethnoprimateology **Credits:** (4)
- PRIM 506 - Survey of the Primates **Credits:** (4)
- PRIM 513 - Research Methods in Primatology **Credits:** (5)
- PRIM 514 - Research Design in Primatology **Credits:** (3)
- PRIM 700 - Master's Thesis, Project Study, and/or Examination **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 18

To be selected by advisement.

Total Credits: 48

College and Department Information

Primate Behavior and Ecology Program
College of the Sciences

Psychology Department

College of the Sciences
Ellensburg
Psychology Bldg., room 421
Mail Stop 7575
509-963-2381
Fax: 509-963-2307
www.cwu.edu/psychology

See the department website for how this major may be used for educational and career purposes (see the Career Guide under Prospective Students tab).

Faculty and Staff

Chair
Stephanie Stein, PhD

Assistant Chair
Stephen B. Schepman, PhD

Professors

Kara I. Gabriel, PhD, general experimental psychology, spatial skills, risk-taking, biopsychology
Susan D. Lonborg, PhD, health psychology, substance abuse, clinical and research ethics, career development, gender, social networking
Heath Marrs, EdD, school psychology, educational psychology, response to intervention, gender issues in education
Megan D. Matheson, PhD, nonhuman primate social behavior,

evolutionary psychology, self-injurious behavior, comparative psychology
Stephen B. Schepman, PhD, organization development, work motivation, personality theories, social psychology, statistics
Anthony J. Stahelski, PhD, industrial/organizational psychology, social psychology, small group interaction, leadership, cults and extremist groups, aggression and violence, terrorism
Stephanie Stein, PhD, school psychology, curriculum-based measurement, behavior disorders in children, lifespan development, psychopathology

Associate Professors

Marte Fallshore, PhD, environmental decision-making, psychology of law, learning, memory, statistics, cognition
Ralf Greenwald, PhD, cognitive brain dynamics, event-related potentials, critical thinking, psychology of video gaming, general cognitive psychology
Jeffrey M. Penick, PhD, mental health counseling, group counseling, counseling supervision, adult aging and development, health psychology
Danielle Polage, PhD, cognitive psychology, psychology and law, memory, eyewitness testimony, lying and jury deliberation
Terrence J. Schwartz, PhD, educational psychology, counseling psychology, statistical analysis
Wendy A. Williams, PhD, applied behavior analysis, general experimental psychology, adults with autism, canine behavior, single-subject research

Assistant Professors

Sara Bender, PhD, psychotic disorders, clinical expectations related to recovery, efficacy of online learning, cyber-supervision
Heidi Perez, PhD, school psychology, efficacy of school-based interventions, graduate student success, social-emotional functioning and behavior in children
Tonya Buchanan, PhD, experimental psychology, social psychology, implicit and explicit attitudes, power, interpersonal perceptions, deception
Maribeth Jorgensen, PhD, researcher and professional identity development, gatekeeping and ethics, sport counseling, research mentorship, suicide prevention, grief and loss
Richard Marsicano, PhD, academic and behavioral interventions, intervention adherence, performance feedback, and response to intervention
Meaghan Nolte, PhD, mindfulness, addictions treatment, counselor training, identity, epistemological development
Liane Pereira, PhD, youth mental health, human development, social determinants of health, educational psychology
Mary Radeke, PhD, use of facial cues in personality assessment, conversation development in young children, personality traits, technology in the classroom, primate communication
Fred Washburn, PhD, counselor development, supervision readiness, assessing counselor competency, counselor pedagogy

Senior Lecturer

Mark Soelling, PhD, counseling psychology, psychology and the law, psychopharmacology

Lecturers

Christopher Beeman, PhD, behavioral neuroscience, biology of long term memory, teaching in psychology, neuroscience outreach
Cristina Bistricean, MS, high-functioning autism, behavior in rehab/nursing facilities, anxiety, intrusive thoughts
Joshua Buchanan, PhD, self-conscious emotion, emotion expression, judgment and decision-making, coordination,

psychology of video games
Jennifer Kassing, MA, couples counseling, family therapy, disorders of childhood, ecotherapy, integrative care, developmental and health psychology

Staff

Debbie Thomas, secretary supervisor
Loretta Ney, secretary lead
Chris Buchanan, engineering technician III

Department Information

The Department of Psychology offers courses of study leading to the master of science degree in experimental psychology, applied behavior analysis, and mental health counseling and to the education specialist degree in school psychology. For students already holding the master's degree, a certification-only program is offered in school psychology.

Admission Requirements

Admission to these programs is based on evaluation of the student's prior scholastic record: verbal, quantitative, and writing scores on the Graduate Record Examination (GRE), recommendations by instructors and/or employers, a statement of professional objectives, and, where appropriate, the applicant's potential to succeed in required practica and internships. If prerequisite background courses or their equivalents have not already been completed, they must be taken as soon as possible. Courses will not be accepted as meeting program prerequisites if taken on a credit/no-credit basis.

Each student is required to file a course of study form with the Office of Graduate Studies and Research by the end of their first quarter. The course of study is structured in consultation with the student's academic advisor and is approved by the department chair. The student is expected to complete at least 30 credits after full admission to the program. Students who wish to use faculty time or departmental resources for completion of thesis work must register for at least one (1) credit of PSY 595 or PSY 700 during each quarter in which they require assistance and resources. Students must be registered for two (2) credits of PSY 595 or PSY 700 during the quarter in which the final thesis defense is held.

Background Check and Liability Insurance: Students admitted to the Mental Health Counseling, or School Psychology programs will be required to have on file a completed, current background and fingerprint check. Also, in order to enroll in clinical training courses (practicum or internship), a student must arrange to purchase individual professional liability insurance. More information regarding procedures, costs, and types of insurance coverage available may be obtained from the department chair or program director.

Practica and Internships: Satisfactory completion of all required practica and internships is mandatory for retention in all degree and certification programs. Grades assigned in these courses are S or U.

Final Examination: Candidates for the master's and education specialist degree must pass an oral final examination on work offered for the degree. This examination will include a presentation and defense of the thesis and may include a review of courses completed in the student's area of specialization.

Education Specialist and/or Certification in School Psychology

The mission, purpose, and governance structure of the School Psychology program is based in the scientist-practitioner model. This approach asserts that:

1. The practice and theory of counseling and the provision of school psychological services must be interconnected
2. Applied skill must be melded with existing scientific knowledge
3. While school psychologists are primarily trained as practitioners, scientific principles, methods, and approaches should be utilized when working with clients
4. Knowledge evolves through the interaction of experimentation, practice, and study

This framework for the professional preparation of school psychologists is divided into three facets:

- Facet 1: Coursework
- Facet 2: Practica
- Facet 3: Internship and thesis

The three facets are interrelated. Students begin without significant academic knowledge. As they begin academic work, their initial assumptions are challenged, guiding them to new understandings of practice and knowledge of counseling and psychology. Their maturity through academics and practica culminate with the final facet where they begin their independent work both in practice (internship) and science (thesis). Students are highly encouraged to meld their academic work with their applied work at each level, and their theses are encouraged to connect to the work they pursue in their internship.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

School Psychology, EdS

Program Director

Heath Marrs, EdD
Psychology Bldg., room 436

The State Board of Education's standards for certification of school psychologists require that the candidate complete an approved specialist degree program in psychology that has been developed in concert with school and professional organizations. (Note: candidates who have already received a master's degree in a related field are not required to earn a specialist degree, but must complete all requirements or their equivalent for certification.) Successful completion of the certification program at Central leads to eligibility for the residency certificate as an educational staff associate (ESA) school psychologist and national certification through the National Association of School Psychologists. The certification program also requires

satisfactory completion of the PRAXIS II examination in school psychology. The EdS degree and certification program in school psychology is fully approved by the National Association of School Psychologists (NASP).

Two cohorts are available for applicants for the EdS School Psychology Program. The full-time Ellensburg cohort is designed for students who have a bachelor's degree or higher. Coursework, practicum, and internship is completed full-time throughout the academic year. The part-time Summer cohort is designed for K-12 educators with at least 3 years of professional experience or individuals who have already obtained a Master's degree. Coursework is completed full-time during the summer and part-time during the academic year. Applicants must obtain a letter of support from their host school district indicating availability to complete practicum hours in their employment setting during the academic year. Up to 20 quarter credits earned as part of a previous graduate degree may be accepted towards the EdS degree, if coursework is equivalent to the required course of study as determined by the CWU School Psychology program. Applicants with earned Master's degree do not need to submit GRE scores for consideration for admission.

Prerequisites: PSY 362, PSY 363, (or approved equivalents) may be taken concurrently with certain program courses.

Education Specialist Degree Requirements

The education specialist degree in school psychology is granted to the candidate upon completion of 102 quarter hours of coursework. The following courses (or approved equivalents) are required.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Develop knowledge of varied models and methods of assessment that yield information useful in identifying strengths and needs, in understanding problems, and in measuring progress and accomplishments.
- Use such models and methods as part of a systematic process to collect data and other information, translate assessment results into empirically-based decisions about service delivery, and evaluate the outcomes of services.
- Develop knowledge of behavioral, mental health, collaborative, and/or other consultation models and methods and of their application to particular situations.
- Collaborate effectively with others in planning and decision-making processes at the individual, group, and system levels.
- Develop knowledge of human learning processes, techniques to assess these processes, and direct and indirect services applicable to the development of cognitive and academic skills.
- Collaboration with others, develop appropriate cognitive and academic goals for students with different abilities, disabilities, strengths, and needs; implement interventions to achieve those goals; and evaluate the effectiveness of interventions. Such interventions include, but are not limited to, instructional interventions and consultation.
- Develop knowledge of human developmental processes, techniques to assess these processes, and

direct and indirect services applicable to the development of behavioral, affective, adaptive, and social skills.

- Collaborate with others, develop appropriate behavioral, affective, adaptive, and social goals for students of varying abilities, disabilities, strengths, and needs; implement interventions to achieve those goals, and evaluate the effectiveness of interventions. Such interventions include, but are not limited to, consultation, behavioral assessment/intervention, and counseling.
- Develop knowledge of individual differences, abilities, and disabilities and of the potential influence of biological, social, cultural, ethnic, experiential, socioeconomic, gender-related, and linguistic factors in development and learning
- Demonstrate the sensitivity and skills needed to work with individuals of diverse characteristics and to implement strategies selected and/or adapted based on individual characteristics, strengths, and needs.
- Develop knowledge of general education, special education, and other educational and related services. They understand schools and other settings as systems.
- Work with individuals and groups to facilitate policies and practices that create and maintain safe, supportive, and effective learning environments for children and others.
- Develop knowledge of human development and psychopathology and of associated biological, cultural, and social influences on human behavior.
- Provide or contribute to prevention and intervention programs that promote the mental health and physical well-being of students.
- Develop knowledge of family systems, including family strengths and influences on student development, learning, and behavior, and of methods to involve families in education and service delivery.
- Work effectively with families, educators, and others in the community to promote and provide comprehensive services to children and families.
- Develop knowledge of research, statistics, and evaluation methods.
- Evaluate research, translate research into practice, and understand research design and statistics in sufficient depth to plan and conduct investigations and program evaluations for improvement of services.
- Develop knowledge of the history and foundations of their profession; of various service models and methods; of public policy development applicable to services to children and families; and of ethical, professional, and legal standards.
- Practice in ways that are consistent with applicable standards, are involved in their profession, and have the knowledge and skills needed to acquire career-long professional development.

- **OR** EDLT 525 - Psychology of Reading **Credits:** (3)
- PSY 545 - Law and Ethics for School Psychologists **Credits:** (3)
- PSY 551 - Applied Behavior Analysis **Credits:** (4)
- PSY 552 - Human Growth and Development, Advanced **Credits:** (4)
- PSY 553 - Single-Subject Design **Credits:** (3)
- PSY 554 - Behavioral Assessment and Observation **Credits:** (4)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 556 - Academic Assessment **Credits:** (5)
- PSY 557 - Behavioral Interventions **Credits:** (3)
- PSY 559 - Advanced Educational Psychology **Credits:** (4)
- PSY 560 - Theories and Practice of Counseling **Credits:** (4)
- PSY 564 - Intellectual Assessment **Credits:** (5)
- PSY 566 - Behavioral and Social-Emotional Assessment **Credits:** (4)
- PSY 567 - Counseling and Assessment: Children and Adolescents **Credits:** (4)
- PSY 574 - Multicultural Counseling and Assessment **Credits:** (4)
- PSY 575 - School-Based Interventions **Credits:** (4)
- PSY 577 - Interviewing Skills for School Psychologists **Credits:** (4)
- **OR** PSY 593A - Practicum in Counseling I: Interviewing **Credits:** (1-4)
- PSY 578 - Applied Clinical Neuroscience **Credits:** (4)
- PSY 581A - Practicum: Academic Assessment and Intervention **Credits:** (1-3) (Must be taken a minimum of 1 credit.)
- PSY 581B - Practicum: Psychoeducational Assessment **Credits:** (1-3) (Must be taken a minimum of 1 credit.)
- PSY 581C - Practicum: School-based Interventions **Credits:** (1-3) (Must be taken a minimum of 1 credit.)
- PSY 583 - Consultation **Credits:** (3)
- PSY 584 - Behavior Disorders and Psychopathology **Credits:** (4)
- PSY 592A - Practicum in School Psychology **Credits:** (1-3) (Must be taken for a minimum of 3 credits.)
- PSY 592B - Practicum in School Psychology **Credits:** (1-3) (Must be taken for a minimum of 3 credits.)
- PSY 683 - School Psychology Internship **Credits:** (5-15) (12 credits required; one public school year, minimum 1,200 clock hours)
- PSY 700S - Master's Thesis/Project in School Psychology **Credits:** (1-6) (Must be taken for 6 credits)
- **OR** PSY 595 - Graduate Research **Credits:** (1-10) (Must be taken for a minimum of 3 credits.)
AND At least 3 credits of approved graduate electives

Required Courses

- PSY 501 - Professional Seminar in School Psychology **Credits:** (3)
- PSY 525 - Psychology of Reading **Credits:** (3)

Total Credits: 105-106

College and Department Information

Experimental Psychology, MS

Program Director

Ralf Greenwald, PhD
Psychology Bldg., Room 428

The Experimental Psychology Graduate Program reflects our commitment to providing students with a generalized background in experimental psychology at the graduate level. Students are expected to complete a set of required core courses and a set of electives that allow the students to concentrate in areas of study adequately represented among the faculty. These areas include cognitive psychology, physiological psychology, social psychology, health psychology, and animal behavior. It is possible to develop curricular tracks in other areas of psychology and/or interdisciplinary programs; however, to be certain that the curriculum can be developed to meet the student's needs, it should be planned in consultation with a faculty advisor prior to enrollment in the program.

Applicants for admission should indicate their interest area(s) and potential faculty advisors in their personal statement of goals. Upon enrolling, students will meet with their faculty advisors to discuss academic objectives and to establish a research plan. Collaborative research that is developed in conjunction with a faculty advisor and that may lead to the student's thesis is encouraged.

Prerequisites: PSY 300 and 362 and 363 (or approved equivalents). Prerequisite courses may be taken concurrently with certain program courses.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Write in the language of the discipline, using the elements of style described in the Publication Manual of the American Psychological Association.
- Describe, perform, and use data analyses for particular data sets
- Describe, assess, and utilize common research designs and measurement tools in psychology
- Design, conduct, and report psychological research.
- Engage in scholarly and professional activities, including presenting research at formal and/or informal professional events.
- Performing professional skills in supervised practice setting.

Methods and Statistics Courses Credits: 11-13

Choose at least three of the five courses listed below:

- PSY 544 - Tests and Measurements **Credits:** (4)
- PSY 553 - Single-Subject Design **Credits:** (3)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 558 - Advanced Statistics **Credits:** (5)

- PSY 588 - Advanced Statistics II **Credits:** (4)

Required Courses Credits: 22

- PSY 505 - Professional Development in Experimental Psychology **Credits:** (1) (Must be taken for 3 credits)
- PSY 510 - Instructional Strategies in the Behavioral Sciences **Credits:** (3)
- PSY 580 - Current Issues in Psychology **Credits:** (3)
- PSY 586 - Ethics in Research **Credits:** (4)
- PSY 595 - Graduate Research **Credits:** (1-10) (Must be taken for 3 credits)
- PSY 700E - Master's Thesis in Experimental Psychology **Credits:** (1-6) (Must be taken for 6 credits)

Department-Approved Electives Credits: 10-12

Electives in areas of concentration (selected in consultation with advisor). Must be approved by program director.

Research

Students must present their research either at CWU's annual on-campus Symposium On University Research and Creative Expression (SOURCE) or at another conference or public forum. This requirement must be completed at least two weeks before the end of the quarter in which the student is graduating.

Total Credits: 45

College and Department Information

Psychology Department
College of Education and Professional Studies

Mental Health Counseling, MS

Program Directors

Fred Washburn, PhD

Meaghan Nolte, PhD

Psychology Building, rooms 431 and 432

The Mental Health Counseling program of Central Washington University selects, educates, and supervises competent mental health counselors. Selection focuses on a small number of highly qualified students. Our Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited counselor-training program balances rigorous academic course work with a 3-4 part personalized clinical experience in our on-site training clinic. Through individualized supervision, we provide support and feedback to facilitate students' development of knowledge, skills, practice, and personal growth. Our goal is to prepare counselors, with a strong sense of professional identity, to meet and advocate for the diverse needs of clients.

Admission Requirements

Prerequisites: PSY 362 and 363 (or approved equivalent). Prerequisite courses may be taken concurrently with certain program courses. In addition, the following undergraduate courses are strongly recommended: personality or abnormal; social or developmental; learning; physiological, multicultural issues in psychology and a course in history and systems of psychology. Please note the background check and liability insurance requirements described in the general departmental information section.

Graduation Requirements

The student shall complete a comprehensive portfolio defense and an approved course of study filed with the School of Graduate Studies and Research.

Program Requirements

PSY 560 and 593A are taken concurrently. Successful completion of PSY 560 and 593A is required for final admission to the Mental Health Counseling Program.

Students who take the master of science (MS) degree and also seek school psychology certification must complete an internship in mental health (PSY 681B) and in school psychology (PSY 683). Other courses required for certification in school psychology will be determined through individual assessment.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Organize their work effectively, demonstrate critical thinking skills, function independently, and use data/research to conceptualize their thinking.
- Demonstrate skills in oral and written communication, listening to client's concerns, interpersonal relations, and respect for human diversity. Students will demonstrate responsiveness to supervision.
- Take initiative for their clinical, academic, and personal duties. They will demonstrate dependability and time management skills. Students will also maintain professional/ethical behavior, work as a team with peers, maintain flexibility when approaching

clinical and academic concerns, and demonstrate appropriate self-awareness of personal strengths and weaknesses.

Required Courses Credits: 86

- PSY 502 - Professional Orientation: Mental Health Counseling **Credits:** (3)
- PSY 538 - Substance Abuse and Dependence **Credits:** (5)
- PSY 544 - Tests and Measurements **Credits:** (4)
- PSY 552 - Human Growth and Development, Advanced **Credits:** (4)
- PSY 555 - Design and Statistical Analysis for Applied Research **Credits:** (4)
- PSY 560 - Theories and Practice of Counseling **Credits:** (4)
- PSY 561 - Group Counseling **Credits:** (3)
- PSY 568 - Clinic Orientation Crisis and Rehabilitation Counseling **Credits:** (4)
- PSY 571 - Counseling for Relationships and Families **Credits:** (4)
- PSY 573 - Career Development and Counseling **Credits:** (4)
- PSY 574 - Multicultural Counseling and Assessment **Credits:** (4)
- PSY 582 - Current Issues in Counseling **Credits:** (4)
- PSY 584 - Behavior Disorders and Psychopathology **Credits:** (4)
- PSY 589 - Professional and Ethical Issues **Credits:** (4)
- PSY 593A - Practicum in Counseling I: Interviewing **Credits:** (1-4) (Must be taken for 4 credits)
- PSY 593B - Practicum in Counseling II: Assessment **Credits:** (4)
- PSY 593C - Practicum in Counseling III: Advanced **Credits:** (4)
- PSY 681A - Mental Health Internship I: Group **Credits:** (3)
- PSY 681B - Mental Health Counseling Internship II: Advanced **Credits:** (1-12) (Must be taken for 12 credits)
- PSY 689 - Capstone in Mental Health Counseling **Credits:** (4)

Department-Approved Electives Credits: 4

Total Credits: 90

College and Department Information

Psychology Department
College of the Sciences

Science Education Department

College of the Sciences
Ellensburg
Discovery Hall, room 301
Mail Stop 7540
509-963-2929
www.cwu.edu/science-education
www.cwu.edu/teachstem/teach-stem

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

Faculty and Staff Chair

Jennifer Dechaine, PhD

Professors

Martha J. Kurtz, PhD, chemistry and science education
Bruce Palmquist, PhD, physics and science education
Ian J. Quitadamo, PhD, biological sciences and science education

Associate Professor

Jennifer Dechaine, PhD, biological sciences and science education
Anne Egger, PhD, geological sciences and science education
Vanessa Hunt, PhD, science education
Tim Sorey, PhD, chemistry and science education

Assistant Professor

Adriano Cavalcanti, PhD, computer sciences and science education
Emilie Hancock, mathematics and science education
Allyson Rogan-Klyve, PhD, science education

Lecturer

Linda Graf, MS, science education
Arthur Morken, MS, science education

Staff

Rachel George, advisor and recruiter
Cori Totten, secretary supervisor

Department Information

The master of education, Science Education Program is on reserve and may be offered subject to program needs. Applications for the program are not being accepted at the present time. However, our faculty work closely with other programs on campus that do offer master's degrees. It is possible to earn a master's degree in another program (i.e., Master Teacher) with a focus on science education.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Sociology Department

College of the Sciences
Ellensburg
Samuelson, room 201
Mail Stop 7545
509-963-1305
Fax: 509-963-1308
www.cwu.edu/sociology
See website for how sociology may be used for educational and career purposes.

Faculty and Staff Chair

Eric Cheney, PhD

Professors

Eric Cheney, PhD, deviance and social control, economic sociology, organizations, statistics and urban sociology
Delores Cleary, PhD, criminology, the life-course, American society, minorities, ethnic studies, American Indian issues
Judith Hennessy, PhD, social welfare and poverty, gender, sociology of work, sociology of family
Nelson Pichardo, PhD, ethnic studies, social movements

Associate Professors

Michael Harrod, PhD, social psychology, criminology theory, intimate partner violence, statistics, research methods
Pamela McMullin-Messier, PhD, demography, aging, collective action, social justice, environmental studies, family, gender, and sexuality
Michael Mulcahy, PhD, political sociology, political economy, organizations, theory
Griff Tester, PhD, gender, social inequality, aging, health

Assistant Professors

Tracey Hoover, PhD, gender and identity, feminist movements and theory, family and socialization, and media
Sarah Samblanet, PhD, social inequality, statistics, gender
Baiqing (Cythnia) Zhang, PhD, criminology, statics

Lecturers

Connie Robinson, PhD, historical sociology, political sociology, social movements, race, ethnicity and nation
Jessica Strawn, MA, criminology and communities, juvenile rehabilitation, social welfare

Staff

Kelly Zakel-Larson, secretary supervisor

Department Information

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

Theatre Arts Department

College of Arts and Humanities
Ellensburg
McConnell Hall, room 102

Mail Stop 7460
509-963-1750
Fax: 509-963-1767
e-mail: theatre@cwu.edu
www.cwu.edu/theatre

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

Faculty and Staff

Interim Chair

Christina Barrigan, MFA

Professor

Michael J. Smith, MFA, head of performance, dialect, acting for the camera

Associate Professors

Christina Barrigan, MFA, head of design, resident lighting designer

George W. Bellah, 3rd, MFA, movement, performance, stage combat, Asian drama

Terri Brown, PhD, head of music theatre, history, literature and music theatre

David Brown, MM, musical director, music theory

Patrick Dizney, MFA, voice, performance

Marc Haniuk, MFA, resident scenic designer

Assistant Professors

Natashia Lindsey, PhD, dramaturg, history, literature

Emily Rollie, PhD, theatre studies, education

Senior Lecturer

Jerry Dougherty, MFA, stage and production management

Lecturers

David Barnett, MFA, McConnell stage manager, scene shop manager, technical director

M. Catherine McMillen, BA, costume shop manager, wigs and makeup

Jae Hee Kim, MFA, costume design and technology

Nick Ligon, MFA, lighting shop manager

Ramón Esquivel, MFA, theatre education, playwriting

Joseph Sasnett, BFA, voice instructor

Jason Tucholke, MFA, sound design and technology

Staff

Lori LaFleur, fiscal technician II

Mary Makins, secretary senior

Department Information

Students must choose one of two specializations: theatre production or theatre studies.

Theatre Studies

The theatre studies specialization is specifically designed for students with career goals in dramaturgy, teaching in higher education, or pursuing a PhD in theatre history, research, literature, or criticism. The program is designed to build the research and analytical skills needed for an academic career in theatre. This Resident Program focuses on the dramaturgical aspects of production, as well as individual scholarly interests related to theatre arts. With opportunities to both teach and undertake research projects in theatre, this program offers the perfect blend of pedagogy and theory needed to prepare students for careers as theatre scholars.

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Out-of-state tuition waivers are also available to qualified candidates.

Theatre Production

The theatre production specialization is specifically designed for the working middle and secondary school teacher who produces plays and would like to obtain an advanced degree through hands-on courses in a program offered entirely during the summer months, within the context of the Summer Institute for Theatre Arts. Options of a blend of summer and academic year models are options, under advisement of the department. This may make the earning of an MA possible in an eighteen-month period.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair. Assistantship applications must be completed by February 16 in order to insure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

Program Outcomes

For information on program outcomes, please go to: www.cwu.edu/mission/assessment-improvement/slo-assessment-plans.

Course Offerings

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

Theatre Arts MA, Theatre Production Specialization

Theatre Production

The theatre production specialization is specifically designed for the working teacher who produces plays and would like to obtain an advanced degree through hands-on courses.

This program is specifically designed around the students work schedule with courses offered annually in July and a culminating project at the home school. The option of completing part of the course work during the academic year to complete the degree in a more expedited manner is also an option of qualified students. Since it was established in 1996, teachers representing 27 states and 12 nations have attended this unique limited-residency graduate program. Students join more than 45 other students each summer learning new skills to take back to the classroom and networking with other theatre artists and educators.

Most graduate courses supporting the theatre production specialization are offered over three summer sessions through the Summer Institute for Theatre Arts. Introductory courses are delivered online during the term prior to the summer session in which the student has been admitted.

Housing for summer institute participants is available in nearby university accommodations.

Admission Requirements

Theatre Production Specialization

Incoming candidates are expected to meet both the requirements for admission to the CWU School of Graduate Studies and the following program requirements:

- Two years of teaching experience or two years of professional theatre experience earned in preparation for teaching
- If the candidate does not hold a bachelor's degree in theatre - a conditional admission will be extended and reviewed after the first year of study.

Neither the GRE nor a foreign language is required for the theatre production specialization.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair. No assistantship covers summer programs.

Assistantship applications must be completed by February 16 in order to ensure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

Program Learner Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate successful theatre practice and in meeting endorsement standards for Washington state, both in theoretical discussion and as they produce their culminating project.
- Articulate the various theatre genres and apply each genre to specific works
- Critically analyze their own work and the work of their peers as it relates to individual students' local situations.
- Critical thinkers with the ability to incorporate theatre practice into immediate productions and continue life-long learning.

Theatre Arts MA Core

Required Core

- TH 501 - Introduction to Graduate Studies **Credits:** (1)
- TH 510 - Theatre Literature, Theory and Criticism I **Credits:** (4)
- TH 511 - Theatre Literature, Theory and Criticism II **Credits:** (4)
- TH 700 - Master's Thesis Project **Credits:** (1-6) (Must be taken for 4 credits.)

Total Required Core Credits: 13

Theatre Production Specialization

The theatre production specialization is designed to prepare teachers to teach and produce theatre. Courses include the study of theatre technology, acting and movement skills, literature and theory, in the context of theatre history, supervised practice in directing plays, musicals, and pedagogical theory.

The program is offered almost entirely in the summer months within the context of the Summer Institute for Theatre Arts. Some graduate study is available during the regular school year. It should be noted that students will be required to register for thesis credits during the academic year. Residency requirement for this program is fulfilled over three summers.

Program Requirements

A minimum of 45 credits is required for the theatre production specialization. The creative project (thesis) required is a full production of a play or musical at an approved outside venue - usually the candidate's school, with written documentation, director's book, and video submitted to the department. The candidate's graduate committee which consists of three faculty members selected by the candidate, will select a member, usually the chair, who will view the production in performance at the candidate's venue. An oral examination and defense of the creative project (thesis) is required and is scheduled the quarter following the realized project. The oral exam/project defense can be held on campus or via electronic conferencing through a committee-approved provider such as Skype or Google Hangout.

A maximum of 15 graduate credits earned within the previous four years at CWU may be applied to the program. The department and the university reserve the right to determine the acceptability of other transfer credit from any institution; a maximum of 9 credits can be accepted from other institutions.

Theatre Endorsement in Washington State

Meeting the state standards, under department advisement, is required to fulfill the theatre endorsement in Washington State. To earn the Washington State endorsement in Theatre the candidate must successfully complete all the standards set forth by the state - this is documented by successful completion of all Theatre Production program requirements, or evaluations, creative project and oral examination - and successfully pass the WEST-E examination. The Praxis or equivalent test may be required to complete certification in other states.

In addition to the MA Theatre core of 13 credits, the student must complete the following:

Required Courses

- TH 502 - Introduction to the Creative Project **Credits:** (1)
- TH 523 - Introduction to Theatre Pedagogy **Credits:** (3)
- TH 536 - Stage Movement **Credits:** (3)
- TH 540 - Contemporary Directing **Credits:** (3)
- TH 541 - Styles in Acting and Directing **Credits:** (3)
- TH 542 - Musical Theatre Directing **Credits:** (4)
- TH 556 - Sound Methods **Credits:** (3)
- TH 565 - Costume and Makeup Methods **Credits:** (3)
- TH 568 - Lighting Methods **Credits:** (3)
- TH 571 - Design Methodology **Credits:** (3)

- TH 583 - Scenic and Property Methods **Credits:** (3)

Total Required Courses Credits: 32

Total Credits: 45

College and Department Information

Theatre Arts Department
College of Arts and Humanities

Theatre Arts MA, Theatre Studies Specialization

Theatre Studies

The theatre studies specialization is specifically designed for students with career goals in dramaturgy, teaching in higher education, or pursuing a PhD in theatre history, research, literature, or criticism. The program is designed to build the research and analytical skills needed for an academic career in theatre. This Resident Program focuses on the dramaturgical aspects of production, as well as individual scholarly interests related to theatre arts. With opportunities to both teach and undertake research projects in theatre, this program offers the perfect blend of pedagogy and theory needed to prepare students for careers as theatre scholars. A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Out-of-state tuition waivers are also available to qualified candidates.

General Requirements of the Program

Students will complete a thesis/project or comprehensive examination. See the student handbook for more information on policies and procedures.

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

Written examination: This option consists of an eight-hour written exam given at the end of one's graduate career. It is designed for students who do not plan to pursue a PhD in theatre.

Admission Requirements Theatre Studies Specialization

Incoming candidates are expected to meet both the requirements for admission to the graduate programs at Central and the following requirements:

- A writing sample, preferably in the discipline, of at least five pages.
- Permission of the faculty, which may include prerequisite or background courses.

The GRE is required for admission to this specialization and a foreign language is required as a graduation requirement.

Graduate Assistantships

A limited number of teaching or research assistantships are available to qualified candidates for the academic year. Assistantships are appointed by the dean of Graduate Studies and Research upon recommendation of the department chair. No assistantship covers summer programs.

Assistantship applications must be completed by February 16 in order to insure full consideration; applicants should submit all materials required by the Office of Graduate Studies and Research. Contact them at (509) 963-3101 to request application materials or visit www.cwu.edu/masters.

Theatre Arts MA Core

Required Core

- TH 501 - Introduction to Graduate Studies **Credits:** (1)
- TH 510 - Theatre Literature, Theory and Criticism I **Credits:** (4)
- TH 511 - Theatre Literature, Theory and Criticism II **Credits:** (4)
- TH 700 - Master's Thesis Project **Credits:** (1-6) (Must be taken for 4 credits.)

Total Required Core Credits: 13

Theatre Studies Specialization

The theatre studies specialization is designed to build the research and analytical skills students will need for academic careers in theatre.

Through opportunities for hands-on dramaturgical experience, teaching, and theatre research, this program offers the perfect blend of theory and practice needed to prepare students for entry into PhD programs, begin teaching careers, and/or professional theatre dramaturgical positions for which they are well qualified.

The program is offered entirely during the academic year requiring a minimum two academic year residency or equivalent.

Program Requirements

A minimum of 45 credits is required for the theatre studies specialization. Thesis credits are included in the minimum. An oral examination and defense of the thesis is required.

In addition to the MA Theatre core of 13 credits, the student must complete the following:

Required Courses

Component 1: Research and History

- TH 505 - Research Methods **Credits:** (2)
- TH 525 - Theatre History Ancients-Renaissance **Credits:** (3)

- TH 526 - Theatre History Renaissance-Modernism **Credits:** (3)
- TH 527 - Theatre History Modernism-Contemporary **Credits:** (3)
- TH 700 - Master's Thesis Project **Credits:** (1-6) (Must be taken for 2 credits, in addition to the 4 credits in the core, for a total of 6 credits.)

Component 2: Dramatic Literature

Select a minimum of 10 credits from the following:

- TH 512 - Studies in Gender Issues **Credits:** (5)
- TH 513 - Studies in World Drama **Credits:** (5)
- TH 514 - Studies in Asian Drama (On reserve as of 9/16/15) **Credits:** (5)
- TH 515 - Studies in Ethnic Drama (On reserve as of 9/16/15) **Credits:** (5)
- TH 518 - Studies in Early Modern Drama **Credits:** (5)
- TH 519 - Studies in Drama and the State (Put on Reserve 9/16/16) **Credits:** (5)
- TH 598 - Special Topics **Credits:** (1-6)
- TH 599 - Seminar **Credits:** (1-5)

Component 3: Focal Area

Select a minimum of 9 credits of the following:

- TH 540 - Contemporary Directing **Credits:** (3)
- TH 541 - Styles in Acting and Directing **Credits:** (3)
- TH 587 - Theatre Pedagogy **Credits:** (4)
- TH 588 - Dramaturgy **Credits:** (3)
- TH 589 - International Applied Studies **Credits:** (1-6)
- TH 593 - Dramaturgical Practicum **Credits:** (1-3)
- TH 599 - Seminar **Credits:** (1-5)

Component 4: Foreign Language

In order to place students in the best position possible for entry into nationally recognized PhD programs, a minimum of two years of at least one foreign language at the undergraduate level with a minimum grade of B or higher in all terms is required. This may be completed prior to admission or while enrolled in the Theatre Studies Program.

Total Required Courses Credits: 32

Total Credits: 45

College and Department Information

Theatre Arts Department
College of Arts and Humanities

Program Outcomes

Visit program outcomes to find out what you can expect to know and do after successful completion of this program.

World Languages and Cultures Department

College of Arts and Humanities
Ellensburg
Language and Literature Bldg., room 102
Mail Stop 7552

509-963-1218

wlang_dept@cwu.edu
www.cwu.edu/foreign-language

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

Faculty and Staff

Chair

Michael Johnson, PhD

Professors

Rodney Bransdorfer, PhD, Spanish
Nathalie Kasselis, PhD, Spanish, French
Natalie Lefkowitz, PhD, Spanish, French
Stella Moreno, PhD, Spanish
Joshua S. Nelson, PhD, Japanese

Associate Professors

Michael Johnson, PhD, French
Eric Mayer, PhD, Spanish

Assistant Professors

Volha Isakava, PhD, Russian

Lecturers

Roselia Arellano-Sandoval, MA, Spanish
Dinara Georgeoliani, PhD, Russian
Mariko Knight, BA, Japanese
Yuanxia Liu, MA Chinese
Jer Loudenback, MA, American sign language
Laurie Moshier, DA, French, German
Mariko Okada-Collins, MA, Japanese

Staff

Ralph Bane, secretary senior

Department Information

The Department of World Languages and Cultures does not offer any graduate programs at this time.

Course Descriptions

Accounting Courses

ACCT 505. Advanced Cost Accounting (5). This course reviews, enhances, and extends, concepts learned in ACCT 305. The focus is on assessing the information needs of end users in the organization, then creating reports (including Excel workbooks) to address those needs. ACCT 405 and ACCT 505 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 521. Advanced Tax 1: Business Entities (5). Study of principles of federal income taxation of corporations and pass-through and their investors. Coverage includes formation, distributions, withdrawals, and dissolution. Course introduces income tax issues concerning estates, trusts, exempt organizations, retirement plans, and farmers. Prerequisites: (ACCT 303 or ACCT 340 or equivalent) and admission to the professional tax practice graduate certificate or department permission.

ACCT 521A. Tax Research Lab - Entities (1). Application of tax laws applicable to business entities. Co- or prerequisite: ACCT 521.

ACCT 522. Advanced Tax 2: Individuals (5). Study of principles of federal income taxation of individuals. Focus is on individual income tax compliance, such as gross income, deductions, credits, property transactions, retirement income, alternative minimum tax, and self-employment tax. Prerequisites: (ACCT 303 or ACCT 340 or equivalent) and admission to the professional tax practice graduate certificate or department permission.

ACCT 522A. Tax Research Lab - Individuals (1). Application of tax laws applicable to individual tax compliance. Co- or prerequisite: ACCT 522.

ACCT 523. Advanced Tax 3: Practice and Procedure (5). Study of rules of conduct and ethics in tax practice, such as competency, conflicts of interest, penalties, and sanctionable acts. Coverage of federal tax procedure, statute of limitations, notions of evidence, and record maintenance. Prerequisites: (ACCT 303 or ACCT 340 or equivalent) and admission to the

professional tax practice graduate certificate or department permission.

ACCT 523A. Practice and Procedure Tax Research Lab (1). Application of rules of conduct and ethics in tax practice, such as competency, conflicts of interest, penalties, and sanctionable acts. Co- or prerequisite: ACCT 523.

ACCT 524. Advanced Tax 4: Current Issues in Taxation (5). Study of contemporary issues in federal and/or state taxation. Subjects may include state and local tax, international tax, taxation of intellectual property, special excise taxes, or any other relevant and current topic. Prerequisites: (ACCT 303 or ACCT 340 or equivalent) and admission to the professional tax practice graduate certificate or department permission.

ACCT 524A. Tax Research Lab - Current Issues in Taxation (1). Application of contemporary issues in taxation to real world scenarios. Co- or prerequisite: ACCT 524.

ACCT 530. Governmental and Non-profit Accounting (5). Accounting and budgetary controls for governmental units and non-profit service organizations, including educational institutions (from school districts to universities) and hospitals. Emphasis is on the advantages, uses, disadvantages, and differences in fund accounting. ACCT 430 and ACCT 530 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 546. Income Tax Accounting II (5). Taxation of trusts and estates, gratuitous transfers, and the formation and termination of corporations and partnerships, with emphasis on tax compliance, planning, and computer-based tax research. ACCT 446 and ACCT 546 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 550. Advanced Accounting (5). Accounting theory and practice for business, combinations and consolidated financial statements, foreign currency transactions and translations, partnerships, and advanced special topics. ACCT 450 and ACCT 550 are layered courses; students may not receive credit for

both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 550A. Advanced Accounting Lab (1). Builds on accounting issues covered in ACCT 550. Provides hands-on experience with digital resources used to research, analyze, and communicate resolutions to the various constituencies served by accounting professionals. Grade will either be S or U. Course will be offered every year (Fall). Co-requisite: ACCT 550.

ACCT 555. Accounting Information Systems (5). Accounting information system development process and related information systems technologies. Includes the application, control, and audit of accounting information systems. ACCT 455 and ACCT 555 are layered courses; student may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 561. Fraud Examination (5). Detection and prevention of financial statement fraud and other forms of business fraud. ACCT 461 and ACCT 561 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 565. Current Issues in Information Technologies (5). Current issues in information technologies and their relevance for accounting professionals. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 575. International Accounting (5). Explores the formulation and application of accounting principles in other industrialized countries. Particular emphasis directed toward the harmonization of accounting principles between the U.S. and other countries. ACCT 475 and ACCT 575 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 583. Seminar Auditing (5). Use of case analysis and other techniques to develop auditing analysis and decision-making skills. Study of AICPA Professional Standards. By permission. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 583A. Seminar in Auditing Lab (1). Builds on audit issues covered in

ACCT 560. Provides hands-on experience with digital resources used to research, analyze, and communicate resolutions to the various constituencies served by audit professionals. Grade will either be S or U. Course will be offered every year (Spring). Co-requisite: ACCT 583.

ACCT 584. Professional Writing and Speaking for the Accountant (5). Develop written and verbal communications skills for practical application in public, private, and governmental accounting fields. Includes interviewing techniques, preparation and presentation of group and individual reports, and preparation of resumes, letters, memos, and work papers. ACCT 484 and ACCT 584 are layered courses; students may not receive credit for both. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 588. Contemporary Issues in Accounting (5). This course develops a comprehensive understanding of the competencies required of today's accounting professional. A case-study approach is used. Critical thinking and communication skills (oral and written) are an integral component of this course. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 590. Cooperative Education (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated up to 5 credits. Grade will either be S or U. Prerequisite: admission to the Master of Professional Accountancy Program.

ACCT 596. Individual Study (1-6). May be repeated for credit. Grade will either be S or U. Prerequisite: admission to Master of Professional Accountancy Program.

ACCT 598. Special Topics (1-6). May be repeated for credit.

ACCT 599. Seminar (1-5). May be repeated if subject is different.

ACCT 696. Individual Study (1-6). May be repeated if subject is different.

ACCT 698. Special Topics (1-6). May be repeated if subject is different.

ACCT 699. Seminar (1-6). May be repeated if subject is different.

ACCT 700. Master's Thesis, Project Study, and/or Examination (1). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project,

public recital, and/or examination. May be repeated for credit. Grade will either be S or U. Prerequisite: admission to the Master of Professional Accountancy Program.

Administrative Management Courses

ADMG 501. ITAM Boot Camp (2). Designed to prepare graduate students to the Information Technology and Administrative Management graduate program. The class covers resources, programs, research and case study formats, faculty bios, and study strategies for online, hybrid, and traditional formats.

ADMG 525. Global Managerial Communications (4). This course introduces students to the importance and need for clear, succinct, and relevant business communications. Students will learn to write and deliver effective messages and will learn to research, purpose, and present business reports. Additionally, students will be introduced to the importance of communications in the digital age. Co- or prerequisite: ADMG 501 .

ADMG 531. Financial Analysis in IT and Administrative Management (4). Addresses the financial analysis functions necessary for an administrative or IT manager to make intelligent financial decisions and communicate effectively with financial professions. Includes understanding financial statements, accounting concepts, ratio analysis, capital budgeting, and working capital. Co- or prerequisite: ADMG 501.

ADMG 545. Research and Statistical Analysis of Data (4). Introduces research design and the use of statistical software to collect and analyze data to improve organizational decisions. The focus is on applying statistical tools to find answers to practical IT and administrative management questions. Co- or prerequisite: ADMG 501 .

ADMG 571. Global Administrative Policy (4). Looks at global issues in administrative management including advanced administrative management techniques, external and internal forces changing organizations and operations, administrative policy making, cross-cultural communication, IT management, social responsibility and ethics. Co- or prerequisite: ADMG 501 .

ADMG 572. Leadership and Supervision (3). Develop leadership techniques and behavior traits to improve productivity of supervisors and leaders in the workplace, while

enhancing interpersonal skills for career success. Prerequisite: graduate standing.

ADMG 573. Global Leadership and Supervision (4). Presents an overview of effective international leadership concepts and techniques in three areas; Self Development, Team Development, and Supervisory Development. Students will be introduced to concepts and techniques as they relate to understanding leadership and supervision. Co- or prerequisite: ADMG 501 .

ADMG 574. Global Project Management (4). Examines project management in a variety of global organizational settings. This course covers the history, current practice, and future directions of Project Management in this increasingly project-oriented global world. Co- or prerequisite: ADMG 501 .

ADMG 590. Cooperative Education (1-8). An individualized contracted field experience with IT and ADMG organizations, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated up to 8 credits. Grade will either be S or U. Prerequisite: by permission of instructor .

ADMG 592. Practicum (1-6). Supervised field experience, must also add additional elective graduate class. Prerequisite: by permission of instructor .

ADMG 596. Individual Study (1-6).

ADMG 598. Special Topics (1-6).

ADMG 631. Organizational Development (4). An in-depth study of organizational dynamics, as applied to organization-wide interventions, designed to improve organization functioning and to implement change in the organization. Includes developing and improving organizations through assessment and diagnosis of culture and processes. Co- or prerequisite: ADMG 501 .

ADMG 641. Innovation and Entrepreneurial Growth (4). Examines various approaches to developing IT innovation-based organizations to self-sufficiency and growth. Addresses the specifics of new IT products and services development and fostering innovation and technology to increase performance. Co- or prerequisite: ADMG 501.

ADMG 654. Applied Customer Relationship Management (CRM) (4). This course examines customer relationship management (CRM) and

the customer-driven practices that enable and organization to attract, satisfy, and retain customers profitably.

Co- or prerequisite: ADMG 501.

ADMG 681. Social Informatics (4).

Focuses on the critical analysis of social, cultural, philosophical, ethical, legal, public policy and economic issues relating to information technologies. Students examine the roles of information technology in social and organizational change. Co- or prerequisite: ADMG 501.

ADMG 689. Capstone Written Project (4).

Serves as a means to distill the recurring themes and issues presented throughout the graduate program and creates a product that will contribute to the solution of real-world problems and concerns in the area of Administrative Management. Co- or prerequisites: ADMG 501 and ADMG 525.

ADMG 696. Individual Study (1-6).

May be repeated if subject is different.

ADMG 698. Special Topics (1-6). May be repeated if subject is different.

ADMG 699. Seminar (1-6). May be repeated if subject is different.

ADMG 700. Master's Thesis, Project Study and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Anthropology and Museum Studies Courses

ANTH 500. Professional Development (1-5).

Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

ANTH 521. Cultural Resources Management (3).

Philosophy, history, and legislation relating to archaeology and historic preservation; design and implementation of cultural resources management programs.

ANTH 527. Environmental Archaeology (4).

Analyses of sediments and plant and animal remains from archaeological sites are used to explore relationships between humans and their environments. Case studies combine natural and physical sciences to study long-term change in landscapes and ecosystems. ANTH 427/527 AND GEOG 427/527 are

cross-listed courses. Graduate credit requires an additional research paper to be specified in syllabus.

ANTH 596. Individual Study (1-6).

May be repeated for credit.

ANTH 598. Special Topics (1-6). May be repeated if subject is different.

ANTH 599. Seminar (1-5). May be repeated if subject is different.

ANTH 696. Individual Study (1-6).

May be repeated if subject is different.

ANTH 698. Special Topics (1-6). May be repeated if subject is different.

ANTH 699. Seminar (1-6). May be repeated if subject is different.

May be repeated if subject is different.

Art and Design Courses

ART 500. Professional Development (1-5).

Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

ART 525. Advanced Studies in Photography (1-10).

Independent, advanced exploration of Photography. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 541. Advanced Studies in Wood (1-10).

Independent, advanced exploration of Wood Design. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 546. Advanced Studies in Jewelry and Metalsmithing (1-10).

Independent, advanced exploration of Jewelry and Metalsmithing. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 550. Advanced Studies in Drawing (1-10).

Independent, advanced exploration of Drawing. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 560. Advanced Studies in Painting (1-10).

Independent, advanced exploration of painting. Emphasis on conceptual strength,

growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 565. Advanced Studies in Ceramics (1-10).

Independent, advanced exploration of Ceramics. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 570. Advanced Studies in Graphic Design (1-10).

Independent, advanced exploration of graphic design. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 580. Advanced Studies in Sculpture (1-10).

Independent, advanced exploration of sculpture. Emphasis on conceptual strength, growth, technical mastery and creation of professional-level work. May be repeated for credit. Permission of instructor. Course will be offered every year (Fall, Winter, Spring).

ART 585. Seminar in Contemporary Art (3).

An in-depth study of selected topics focusing on contemporary art, critical methodology and how current issues relate to the role of the artist as a producer of visual culture. Prerequisite: ART 414.

ART 589. Art Concepts and Criticism (3).

Study of the attitudes and values in relation to recent changes in art forms and contents. Analysis and practice in critical judgment.

ART 596. Individual Study (1-6).

May be repeated for credit.

ART 598. Special Topics (1-6). May be repeated for credit.

ART 599. Seminar (1-5). May be repeated for credit.

ART 696. Individual Study (1-6). May be repeated if subject is different.

ART 698. Special Topics (1-6). May be repeated if subject is different.

ART 699. Seminar (1-6). May be repeated if subject is different.

ART 700. Master's Thesis, Project Study, and/or Examination (1-12).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated for credit not to exceed 6 credits for MA degree and 12 credits for MFA degree. Grade will either be S or U. Prerequisite: permission of chair

of student's graduate faculty supervisory committee.

Biological Sciences Courses

- BIOL 500. Professional Development** (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.
- BIOL 501. Research Methods and Techniques** (4). An introduction to methods, techniques, and procedures commonly used in biological research. Experimental design of research projects will be emphasized.
- 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 up to 10 credits. Prerequisite: graduate standing.
- BIOL 513. Advanced Biostatistics** (5). Visualization and analysis of complex biological data-sets. Computer laboratory exercises will utilize R, a free and powerful software environment for statistical computing and graphics. BIOL 413 and BIOL 513 are layered courses; students may not receive credit for both. Three hours lecture and two hours laboratory per week. Prerequisites: BIOL 213 or permission of instructor.
- BIOL 528. Nutrigenomics** (5). The interrelationships of genetic variation, nutrition, and diet-related diseases. Topics to be covered include techniques used in the field, disease susceptibility alleles, diet and gene expression, personalized diets, and case studies. BIOL 428 and BIOL 528 are layered courses; a student may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: BIOL 321 or CHEM 432 or instructor permission.
- BIOL 535. Cell Analysis by Flow Cytometry** (4). Acquire flow cytometry skills (fluorochrome selection, sample preparation, data acquisition, data analysis, data interpretation). Design and conduct research projects requiring in-depth analysis of physical and chemical characteristics of cells acquired by flow cytometry. Discuss flow cytometry applications in various scientific fields.

BIOL 435 and BIOL 535 are layered courses; students may not receive credit for both.

- BIOL 565. Advanced Animal Behavior** (5). Advanced knowledge in the study of animal behavior. Three hours lecture, two hours laboratory, one hour independent study per week. BIOL 465, BIOL 565 and PSY 565 are cross-listed courses; students may not receive credit for more than one.
- BIOL 566. Conservation Biology** (5). An introduction to the theory and practice of conservation biology, with emphasis on case studies. Two hours lecture, one hour discussion, and four hours lab or field study per week. Weekend field trips may be required. BIOL 466 and BIOL 566 are layered courses; students may not receive credit for both. Prerequisite: BIOL 360 and graduate standing.
- BIOL 590. Cooperative Education** (1-5). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.
- BIOL 592. Biological Field Studies** (1-15). Individual or group off-campus experience in the field study of biological phenomena. May be repeated for up to 15 credits. Grade will either be S or U.
- BIOL 595. Graduate Research** (1-10). Organization or conduct of an approved laboratory and/or field research problem. By permission. Maximum of 10 credits may be included on course of study for the master's degree.
- BIOL 596. Individual Study** (1-6). May be repeated for credit.
- BIOL 598. Special Topics** (1-6). May be repeated for credit.
- BIOL 599. Seminar** (1-5). Discussion of specific topics from readings in biological journals, books, and other materials. May be repeated up to 5 credits.
- BIOL 602. Research Presentations** (2). Student will discuss and develop effective oral presentation skills, prepare their research results for presentation, and give an oral presentation suitable for regional or national scientific meetings. Prerequisite: BIOL 502.
- BIOL 696. Individual Study** (1-6). May be repeated if subject is different.
- BIOL 698. Special Topics** (1-6). May be repeated if subject is different.

BIOL 699. Seminar (1-6). May be repeated if subject is different.

BIOL 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, public presentation, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Business Courses

- BUS 541. Advanced Business Law** (5). The law of negotiable instruments, suretyship, business structures including partnerships and corporations, trusts and estates, bankruptcy and government regulations of business. BUS 441 and BUS 541 are layered courses; students may not receive credit for both. Prerequisite: admittance to a College of Business Graduate Program.
- BUS 541A. Advanced Business Law Lab** (1). Builds on legal issues covered in BUS 541. Provides hands-on experience with digital resources used to research, analyze, and communicate resolutions to the various constituencies served by accounting professionals. Grade will either be S or U. Course will be offered every year (Winter). Co-requisite: BUS 541.
- BUS 596. Individual Study** (1-6). May be repeated if subject is different.
- BUS 598. Special Topics** (1-6). May be repeated if topic is different.
- BUS 599. Seminar** (1-5). May be repeated if subject is different.
- BUS 696. Individual Study** (1-6). May be repeated if subject is different.
- BUS 698. Special Topics** (1-6). May be repeated if subject is different.
- BUS 699. Seminar** (1-6). May be repeated if subject is different.

Chemistry Courses

- CHEM 500. Professional Development** (1-5). Development topics and issues for in service and continuing education of professionals. Not applicable to degrees that are not institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit. Course will not have an established scheduling pattern.
- CHEM 503. Introduction to Research** (1). An overview of the original research work being done in the Department of Chemistry. Class meetings are comprised of presentations by different faculty members. Grade will either be S or U.

Course will not have an established scheduling pattern.

CHEM 505. Current Topics in

Chemistry (1). May be repeated for credit when subject matter differs up to 5 credits. Course will not have an established scheduling pattern.

CHEM 511. Advanced Biochemistry

(3). A course in advanced biochemical concepts with a special focus on the multiple levels of gene expression regulation and structure-function relationships of protein and nucleic acids. Course will not have an established scheduling pattern. Prerequisites: CHEM 431 or permission of the instructor.

CHEM 512. Biochemical Toxicology

(3). An introduction to the principles of toxicology followed by a survey of the biochemical mechanisms involved in cytotoxicity, including reactive intermediates and their interaction with macromolecules. Course will not have an established scheduling pattern.

CHEM 513. Biochemistry of Signal

Transduction (3). An introduction to the biochemical principles and mechanisms of signal transduction. Emphasis will be given to information transfer between molecules, design requirements of signaling components, and higher-order information processing by molecular networks. Prerequisite: CHEM 431 with a grade of C- or higher.

CHEM 550. Advanced Analytical

Chemistry (3). A 3-credit lecture course that covers advanced topics in analytical chemistry including electrochemistry, separations, spectroscopy, mass spectroscopy, speciation, and advanced statistical techniques applied to analytical chemistry. Course will not have an established scheduling pattern. Prerequisite: CHEM 383.

CHEM 551. Atmospheric Chemistry

(3). The chemistry of the stratosphere and troposphere; chemistry of the atmospheric waters; the transport of air pollution; topics of current scientific/societal interest, related to the effects of human activity on air quality and climate, such as chemistry of urban air, particulate matter, and chemistry-climate coupling. Course will not have an established scheduling pattern. Prerequisite: CHEM 382.

CHEM 561. Organic Reaction

Mechanisms (3). Advanced treatment of basic mechanistic principles of modern organic chemistry. Topics may include frontier molecular orbital theory, kinetics, conformational analysis, aromaticity, the chemistry of

reactive intermediates, photochemistry, and substitutions. Course will not have an established scheduling pattern.

Prerequisites: CHEM 363 or the equivalent, or permission of the instructor.

CHEM 562. Organic Spectroscopy (3).

Theory, instrumentation and application of spectroscopic techniques in organic chemistry. Focus is primarily on interpretation of data in order to fully characterize molecular structure. Course will not have an established scheduling pattern.

CHEM 564. Medicinal Organic

Chemistry (3). An overview of the drug design and discovery process. A multi-component study of drugs and other biologically potent compounds in terms of chemical synthesis, chemical properties, biochemical evaluation, and substrate-enzyme interaction. Course will not have an established scheduling pattern. Prerequisites: CHEM 363 and CHEM 431 or equivalent or permission of the instructor.

CHEM 567. Physical Organic

Chemistry (3). Advanced study of organic structures, intermediates, and reaction mechanisms. Techniques presented include thermochemistry, kinetics, linear free energy relationships, isotope effects, and computational methods. Additional topics include radicals, carbenes, and photochemical reactions. Course will be offered on even numbered years. Course will not have an established scheduling pattern. Prerequisite: CHEM 363 and CHEM 382, or the equivalent, or permission of the instructor.

CHEM 571. Topics in Solid State

Chemistry (3). A survey of the structures and properties of inorganic solids: crystallography, X-ray diffraction, phase equilibria, electronic structure and luminescence. Course will not have an established scheduling pattern. Prerequisites: CHEM 350 and CHEM 382.

CHEM 580. Advanced Physical

Chemistry (Put on reserve 9/16/18) (3). A 3-credit lecture course including experimental and theoretical thermodynamics, advanced chemical kinetics, molecular dynamics, transition state theories, atomic and molecular spectra, nanotechnologies. Course will not have an established scheduling pattern. (Put on reserve 9/16/18, will go inactive 8/24/21) Prerequisite: CHEM 383.

CHEM 581. Quantum and

Computational Chemistry (3). A 3-credit lecture course including quantum

mechanical descriptions of translation, rotation, and vibration of microscopic particles, electronic structures of atoms and molecules, Hartree-Fock (HF) and post-HF theories and their applications in the computation of physical and chemical properties of studied matters. Course will not have an established scheduling pattern. Prerequisite: CHEM 383.

CHEM 589. Graduate Student

Seminar (2). A one hour professional seminar encompassing a contemporary topic is provided to the department and campus community. May be repeated for credit. Course will not have an established scheduling pattern.

CHEM 590. Cooperative Education (1-

5). May be repeated for credit. Grade will either be S or U.

CHEM 592. Laboratory Experience in

Teaching Chemistry (2). Practical experience in teaching chemistry laboratories. An introduction to teaching, teaching philosophies, safety, and hazardous waste management. By permission. May be repeated for credit but only 2 credits may be applied to the chemistry MS degree. Grade will either be S or U. Course will not have an established scheduling pattern.

CHEM 595. Graduate Research (1-10).

By permission. May be repeated for credit.

CHEM 596. Individual Study (1-5).

By permission. May be repeated for credit.

CHEM 598. Special Topics (1-6).

May be repeated for credit.

CHEM 599. Graduate Seminar (1).

May be repeated for credit.

CHEM 696. Individual Study (1-6).

May be repeated if subject is different.

CHEM 698. Special Topics (1-6).

May be repeated if subject is different.

CHEM 699. Seminar (1-6).

May be repeated if subject is different.

CHEM 700. Master's Thesis, Project

Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Course will not have an established scheduling pattern.

Communication Courses

COM 501. Advanced Communication

Theory (Put on reserve 9/16/18) (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. (Put on reserve 9/16/18, will go inactive 8/24/21)

COM 556. Convergent Gaming

Research (Put on reserve 9/16/16) (4).

This course is a comprehensive look at the use of games in research and methods of researching the games industry. Students will supervise undergraduate research teams, develop unique research agendas, and test research methods in virtual worlds. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

COM 565. Advanced Theory and

Application in Organizational Comm

(Put on reserve 9/16/17) (5). An in-

depth study of the communication theories and concepts that affect processes relevant to organizational life. Emphasis placed on structuration, organizational entry and exit, computer-mediated communication and models of organizational adaptation and growth. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

COM 569. Media and Cultural Studies

(Put on reserve 9/16/16) (4). Detailed

examination of the media from the perspectives and insights of critical theoretical approaches ranging from the Frankfurt School, to cultural studies, to postmodern theory. Emphasis on unlocking the domains of meaning, value, politics, and ideology in the development of entertainment and information technology industries.

COM 469 and 569 are layered courses; students may not receive credit for both. (Put on reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

COM 590. Cooperative Education (1-

5). An individualized contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated up to 8 credits. Grade will either be S or U.

COM 596. Individual Study (1-6).

COM 598. Special Topics (1-5). May be repeated for credit.

COM 599. Seminar (1-5). May be repeated for credit.

COM 696. Individual Study (1-6). May be repeated if subject is different.

COM 698. Special Topics (1-6). May be repeated if subject is different.

COM 699. Seminar (1-6). May be repeated if subject is different.

Computer Science Courses

CS 526. Autonomous Robotics (4). This course teaches how to integrate cloud

computing and big data analytics for robotics machine learning programming, providing the fundamentals of real time distributed computing, mobile devices, and IoT systems, including implementation of cloud robotics. CS 476 and CS 576 are layered courses; a student may not receive credit for both. Course will be offered every year (Spring). Prerequisite: CS 301.

CS 528. Advanced Data Structures and

Algorithms (4). This course is a detailed introduction to advanced algorithms and data structures used in the computational science MS program. Prerequisites: CS 301 and MATH 330.

CS 529. Advanced Algorithms for

Scientific Computing (4). The course presents specialized algorithms and data structures for scientific computing and it a continuation of CS 528. Prerequisite: CS 528.

CS 530. High-Performance Computing

(4). This course will provide foundations and concepts on high-performance computing. It provides an overview of computer hardware, software, and numerical methods that are useful on scientific workstations, massively parallel architectures, and supercomputers. Prerequisite: CS 528.

CS 540. Algorithms for Biological Data

Analysis (4). The course introduces the algorithms used in bioinformatics. Prerequisite: CS 529.

CS 545. Data and Information

Visualization (4). Data visualization includes the visualization pipeline, basic and advanced data representations, fundamental and advanced visualization algorithms, visualization on the web, applications and software tools. CS 545 and CS 445 are layered courses; students may not receive credit for both. Course does not have an established scheduling pattern. Prerequisite: CS 302.

CS 556. Data Mining (4). Introducing

concepts, models, algorithms, and tools for solving data mining tasks; decision trees, time series, Bayesian methods, k-nearest neighbors, and relational databases. CS 456 and CS 556 are layered courses; students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: CS 529.

CS 557. Computational Intelligence

and Machine Learning (4). Introducing intelligent systems: artificial neural networks, deep learning, evolutionary computation, fuzzy systems, swarm intelligence, and hybridizations of the above techniques.

We will look at these techniques from a machine learning perspective. CS 457 and CS 557 are layered courses; students may not receive credit for both. Course will not have an established scheduling pattern (Winter). Prerequisite: CS 528.

CS 565. Scientific Computing (4). A

hands-on approach, application oriented. Topics include optimization, mathematical modeling, simulations, numerical computation, and data visualization. Formerly MATH 565, students may not receive credit for both. Prerequisites: CS 301 or undergraduate students may enroll with the permission of the instructor.

CS 567. Computational Statistics (4).

Applications of statistics for the computational sciences, including data mining, big data analytics, financial analysis, and signal processing. Formerly MATH 567, students may not receive credit for both. Prerequisites: CS 301 or undergraduate students may enroll with the permission of the instructor.

CS 573. Parallel Computing (4). Major

parallel architectures and languages. Parallel programming methodologies and applications. CS 473 and CS 573 are equivalent courses; students may not receive credit for both. Prerequisite: CS 528.

CS 589. Research Seminar (2). A one-

hour professional seminar encompassing a recent CS topic is provided by the student to the department and campus community using LaTeX (Beamer) generated slides. The student also submits a technical report in LaTeX. Grade will either be S or U. Course will be offered every year (Fall).

CS 595. Graduate Research (1-10).

Graduate research activity resulting in a paper (technical report, conference paper, journal paper). By permission. May be repeated up to 25 credits.

CS 596. Individual Study (1-6). By permission. May be repeated up to 10 credits.

CS 598. Special Topics (1-6). May be repeated if subject is different.

CS 599. Seminar (1-5).

CS 599S. Research Seminar (1). A one-hour professional seminar encompassing a contemporary topic is provided by the student to the department and campus community.

CS 696. Individual Study (1-6). May be repeated if subject is different.

CS 698. Special Topics (1-6). May be repeated if subject is different.

CS 699. Seminar (1-6). May be repeated if subject is different.

CS 700. Thesis/Project (1-5).

Preparation of the Thesis/Capstone Project. Prerequisite: permission of the chair of the student's graduate faculty supervisory committee. May be repeated up to 5 credits. Grade will be S or U.

Career and Technical Education Courses

CTE 500. Professional Development

(1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

CTE 501. Research Methods (4). An examination of methods of conducting research on human behavior with an emphasis on application to career and technical education. Course will be offered every year. Course will not have an established scheduling pattern.

CTE 502. Statistics (4). Introduction to the quantitative statistics in social sciences specific to issues in career and technical education. Topics include conducting analysis using computer software (SPSS), evaluating the results of statistical analysis, and drawing appropriate conclusions. CTE 502, FCSG 502 and FCL 502 are equivalent courses; students may receive credit for only one course. Course will be offered every year. Course will not have an established scheduling pattern.

CTE 522. Survey of Research (1-5).

The historical, philosophical, and legislative basis of program development and profession growth. CTE 522, FCSG 522, and FS 522 and are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 526. Program Delivery Methods

(1-5). Course addresses theories of learning and human development in selecting program delivery strategies and resources. Includes models for management, assessment, evaluation, and public relations. CTE 526 and FCSG 526 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 551. Principles of Career and Technical Education (4-5). This course addresses the planning and implementation of CTE programs including work and career, leadership development, advisory committees, program promotion, and professional responsibilities.

CTE 580. Administration (1-5). The study of the administration and

directorship of the laws, trends, issues and agency or program standards. CTE 580 and FCSG 580 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 581. Program Resource

Management (1-5). Grant writing and the study of the local, state, and federal financing (both revenue and expenditure). CTE 581 and FCSG 581 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 582. Curriculum Development (1-

5). Use program standards to determine and develop program scope and content. CTE 582, FS 582, and FCSG 582 are cross-listed courses, students may not receive credit for both. May be repeated for credit.

CTE 583. Partnerships and Advisory

Committees (1-5). Examination of how education systems create and use industry partnerships and advisory committees to enhance education programs. CTE 583 and FCSG 583 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 584. Supervision and Evaluation

(1-5). The development of constructive guidance, observation, and assessment skills. CTE 584 and FCSG 584 are cross-listed courses; students may not receive credit for both. May be repeated for credit.

CTE 590. Cooperative Education (1-8).

An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated for credit. Grade will either be S or U.

CTE 592. Practicum (2-16).

Supervised field experience in specialization content area. May be repeated for credit. Grade will either be S or U.

Prerequisite: graduate standing.

CTE 596. Individual Study (1-6).

May be repeated if subject is different.

CTE 598. Special Topics (1-6). May be repeated if subject is different.

CTE 599. Seminar (1-5). May be repeated if subject is different.

CTE 696. Individual Study (1-6). May be repeated if subject is different.

CTE 698. Special Topics (1-6). May be repeated if subject is different.

CTE 699. Seminar (1-6). May be repeated if subject is different.

CTE 700. Master's Thesis, Project

Study, or Examination (1-6). Designed to credit and record supervised study for the master's thesis,

non-thesis project, and/or examination. By permission of instructor. May be repeated up to 6 credits. Grade will wither be S or U.

Economics Courses

ECON 552. Managerial Economics and Business Strategy (5).

Application of microeconomic theories to managerial decisions and planning under various market structures. Prerequisite: admission to the Master of Professional Accountancy plan prior to enrolling in this course.

Education: Center for Teaching Learning Courses

ECTL 500. Professional Development

(1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

Education: Administration 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 cross-listed courses. May be repeated up to 12 credits. Grade will either be S or U.

EDAD 567. Instructional Mentoring

(Put on reserve 9/16/18) (4). Essential skills for mentoring/coaching new teachers in teaching excellence. (Put on reserve 9/16/18, will go inactive 8/24/21)

EDAD 568. Instructional Decision

Making (3). Knowledge and skills for the development of novice teacher's classroom practice to meet the needs of each student in an increasingly diverse classroom.

EDAD 569. Coaching and Observation

(Put on reserve 9/16/16) (4). Knowledge and skills helping mentors shape their professional growth of their colleagues, the culture of schools, and the practice of a new generation of teachers. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

EDAD 570. Administrator Pro-Cert

Seminar (Put on reserve 9/16/16) (2-6). The course provides the candidate an opportunity to engage in the process to meet the benchmarks, using self-evaluation, utilizing the Profile of Leadership Effectiveness (POLE) 360 and other data to determine administrator's positive impact on student learning. May be repeated

under different subtopics up to 6 credits. By permission. Grade will either be S or U. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

EDAD 575. Administration and

Supervision of IDEA (3). A focus on administrative process of designing, developing, preparing for implementation and evaluating the procedural and substantive safeguards related to administering and supervising disability programs.

EDAD 577. Diversity Leadership (3).

Prepare school administrators in leadership skills in the area of diversity management across all sectors of education and society. By permission.

EDAD 578. Readings in School

Leadership (1-5). Engage in reading, analyzing, reflecting, and critiquing contemporary books giving special attention to implications of the readings for educational administrators. By permission. May be repeated up to 5 credits.

EDAD 579. School Personnel (4). An

examination of the functions of a Human Resource Office in an educational setting. Students will learn about recruitment, selection, placement of highly qualified teachers, administrators, and classified personnel; other essential personnel and human resources functions.

Prerequisite: graduate standing.

EDAD 580. Educational

Administration (4). An examination of administrative theory, principles, concepts, and processes, and the administration of educational programs and services. Prerequisite: one year of teaching experience.

EDAD 581. Public School Finance (4).

An examination of writing educational grants and contracts. Students will build budgets and become familiar with various types and use of state funds. For those students enrolled in either the MEd in administration or the administrator certification program. Prerequisite: one year of teaching experience.

EDAD 582. School Curriculum (4).

Examination of school curriculum for the improvement of instructional and student learning. Prerequisites: EDAD 580 or permission of instructor.

EDAD 583. School and Community

(4). An in-depth examination of the relationship between the school and community for the improvement of instruction and student learning. Prerequisite: one year of teaching experience.

EDAD 584. School Supervision (4). An examination of problems and issues in supervision. Emphasizes evolving concepts of supervision, strategies, and practices of promoting instructional change.

EDAD 586. The Principalship (4). The administration of elementary, middle, junior high, and high schools. Covers common elements and those peculiar to specific levels. Prerequisite: one year of teaching experience.

EDAD 589. School Law (4). An

introduction to U.S. constitutional, legislative, and regulative school law, with particular attention to the state of Washington. Covers the legal issues of governance, church/state relations, tort liability, personnel and student rights, rights of handicapped students, property and funding, minorities. Also covers basic legal research skills.

Prerequisites: EDAD 580 or permission of instructor.

EDAD 590. Cooperative Education (1-

5). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

EDAD 591. Workshop (1-6). No more

than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDAD 596. Individual Study (1-6).

May be repeated for credit.

EDAD 597. Graduate Research (1-10).

Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDAD 598. Special Topics (1-6). May be repeated for credit.

EDAD 599. Seminar (1-5). May be repeated for credit. Grade will either be S or U.

EDAD 692. Pre-autumn Internship (3).

Emphasis on the principal's responsibilities prior to and during the opening of the school year. Permission to register only after approval of program director. Combines with EDAD 693 for 16 total credits in administrative internship. Grade will either be S or U. Prerequisites: EDAD 580, EDAD 586, and a minimum of three years of successful teaching experience.

EDAD 693. Intern School

Administration (3-9). Meets the laboratory and internship requirements

outlined by the State Board of Education for candidates for principal's credentials. Permission to register only after approval of program director. Credits earned in an administrative internship may not exceed a total of 12. Combines with EDAD 692 for 12 total credits in administrative internship. Grade will either be S or U. Prerequisites: EDAD 580, EDAD 586, and a minimum of three years of successful teaching experience.

EDAD 694. Internship in Improvement of Instruction and Curriculum Development (Put on reserve 9/16/18)

(3-9). Meets the laboratory and internship requirements outlined by the State Board of Education for candidates for a program administrator's credential in supervision instruction and curriculum development specializations. May be repeated up to 12 credits. Grade will either be S or U. (Put on reserve 9/16/18, will go inactive 8/24/21)

EDAD 696. Individual Study (1-6).

May be repeated if subject is different.

EDAD 698. Special Topics (1-6). May

be repeated if subject is different.

EDAD 699. Seminar (1-6). May be

repeated if subject is different.

EDAD 700. Master's Thesis, Project

Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Education: Bilingual Courses

EDBL 514. Introduction to Linguistic Diversity in Education (3). This

course provides mainstream classroom teachers the needed background theory to better the educational experience of linguistically diverse students.

EDBL 518. Linguistics for Educators

(3). Identification and study of problems related to educational linguistics and second-language instruction. Prerequisites: EDBL 433 or English as a second language methods course, or equivalent, and classroom experience.

EDBL 529. Methods of Teaching ESL: History, Theories, and Materials (3).

Explores theoretical and conceptual information about second language acquisition and develops research-based methods, techniques, and materials in teaching English language learners. Permission of department.

EDBL 530. Sheltering in Mainstream I: Methods (3). This course provides mainstream classroom teachers the needed background information and methodology to better the educational experience of ESL students through the use of sheltered instruction.

EDBL 531. Sheltering in Mainstream II: Assessment and Resources (3). This course provides mainstream classroom teachers the needed background information and methodology to better the educational experience of ESL students by using classroom-based assessment and other resources.

EDBL 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

EDBL 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program. May be repeated for credit.

EDBL 596. Individual Study (1-6). By permission. May be repeated for credit.

EDBL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDBL 598. Special Topics (1-6). May be repeated for credit.

EDBL 599. Seminar (1-5). May be repeated for credit.

EDBL 696. Individual Study (1-6). May be repeated if subject is different.

EDBL 698. Special Topics (1-6). May be repeated if subject is different.

EDBL 699. Seminar (1-6). May be repeated if subject is different.

EDBL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

Education: Elementary Courses

EDBL 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating

employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

EDEL 591. Workshop (1-6). May be repeated for credit. No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDEL 596. Individual Study (1-6). By permission. May be repeated for credit.

EDEL 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDEL 598. Special Topics (1-6). May be repeated for credit.

EDEL 599. Seminar (1-5). May be repeated for credit.

EDEL 696. Individual Study (1-6). May be repeated if subject is different.

EDEL 698. Special Topics (1-6). May be repeated if subject is different.

EDEL 699. Seminar (1-6). May be repeated if subject is different.

EDEL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

Education: Foundation Courses

EDF 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

EDF 501. Educational Foundations (3). Provides a background in selected areas of sociological, historical, and philosophical foundations of education. Also covers current and emerging problems of education.

EDF 502. History of Education (3). Background: historical development in America.

EDF 503. Philosophy of Education (3). Various philosophic positions which lead to an understanding of the educational enterprise. EDF 503 and PHIL 503 are cross-listed courses; students may not receive credit for both.

EDF 505. Educational Measurement for Teachers (3). Designed primarily for graduate students. Emphasis is on formal and informal measurement. Test

theory, formative and summative evaluation; criterion and norm referenced measurements, and construction and use of classroom tests are emphasized.

EDF 506. Education Futurism (3). A study of the literature on alternative futures in American society and their possible impacts upon education. The methods of creative forecasting or future research. The desirability of deciding between alternative futures in education and the methodology of helping to bring about the more desirable future. Futurism in elementary and secondary schools.

EDF 507. Studies and Problems in Intercultural Education (3). Research and analysis of models in intercultural and interpersonal school relations. Awareness of the student-teacher relation in creating school climate in multicultural settings. Analysis of the principles used to interpret these interactions, and practice in brief interventions involving staff, teachers, and students.

EDF 508. Comparative Education (3). A comparative look at national systems of education.

EDF 510. Educational Research and Development (4). A study of the types, methodology, and uses in practice of educational research and development skills pertinent to the design and execution of research thesis and education developmental projects.

EDF 511. Planning for Learning (3). Principles of planning, instruction, curriculum development, and pedagogy used in teaching primary, middle, and secondary level students. By permission.

EDF 515. Comics Literacy for Educators (3). Fundamental principles of graphic literacy; selecting appropriate comics for the classroom. The comics medium genre as a way to acquire, practice, and master traditional and new literacies, including visual and critical media literacy. Prerequisite: admission to Master Teacher Program.

EDF 516. Teachers and Schools in United States Media (3). Critical examination of the symbolic representation and social function of the teacher archetype as depicted in US media and the effects on the teacher persona. Prerequisite: one year of licensed teaching experience.

EDF 567. Educational Change (3). Education change; barriers, characteristics, trends, processes; role of change agent in school organization; leadership techniques for facilitating change.

EDF 590. Cooperative Education (1-8).

An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

EDF 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDF 596. Individual Study (1-6). By permission. May be repeated for credit.

EDF 597. Graduate Research (1-10).

Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on course of study for the master's degree.

EDF 598. Special Topics (1-6). May be repeated for credit.

EDF 599. Seminar (1-5). May be repeated for credit.

EDF 696. Individual Study (1-6). May be repeated if subject is different.

EDF 698. Special Topics (1-6). May be repeated if subject is different.

EDF 699. Seminar (1-6). May be repeated if subject is different.

EDF 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDF 510.

Education: Higher Education Courses**EDHE 510. History of Higher**

Education (3). The primary purpose of the course is to provide an overview of the evolution of higher education in the United States. Formerly EDAD 510, students may not receive credit for both. Prerequisite: enrolled in master of education higher education.

EDHE 511. Research in Higher

Education (4). An introduction to the characteristics and various approaches to designing and conducting research projects in higher education. Formerly EDAD 511, students may not receive credit for both. Prerequisite: enrolled in the master of education higher education.

EDHE 512. Diversity Leadership

Management (3). Ability to recognize, understand, and adapt to differences in an organizational setting. Prerequisite: admission in the Master in Higher Education Program.

EDHE 515. College Student

Development (3). Theories of student development, and their applications in higher education student affairs programs, services, and activities. Emphasis will be placed on theories of psychosocial, cognitive, moral, environmental, and identity development (minority, traditional age, and non-traditional), as well as theories of learning. Formerly EDAD 515, students may not receive credit for both. Prerequisite: enrolled in the master of education higher education.

EDHE 517. Organizational Dynamics

(3). Overview of organizations as dynamic systems, emphasizing a culture of change influenced by intra-personal and interpersonal beliefs and behavior relative to ethics, leadership, motivation, communication, decision-making, problem solving, conflict resolution, and stress; impacting professional growth. Formerly EDAD 517, students may not receive credit for both. Prerequisite: enrolled in the master of education higher education.

EDHE 518. Program Evaluation and

Assessment (3). Overview of program evaluation planning, and how to assess programs efficiently at various higher education settings. Formerly EDAD 518, students may not receive credit for both. Prerequisite: enrolled in the master of education higher education.

EDHE 520. Program Administration

in Adult Education (3). The principles and procedures involved in designing, organizing, operating, and evaluating comprehensive adult education and training programs. This course emphasize the role and responsibilities of the program manager/leader in developing human resources. Prerequisite: admission in the Master in Higher Education Program.

EDHE 525. Organizational

Communication in Higher Education (3). This course will provide the theoretical fundamentals in communication, apply communication strategy to oral and written business assignments, and focus on how organizations communicate to their internal and external stakeholders. Prerequisite: enrolled in master of higher education.

EDHE 560. The American Community

College Student (3). To provide the graduate student with an overview of the unique characteristics of the American community college students, including vocational education, academic transfer, life long learning, and remedial instruction. Prerequisite:

admission in the Master in Higher Education Program.

EDHE 561. Student Success in American Higher Education (3).

Theories and research in higher education on effective policies, programs, and practices that can be adopted to promote student success in higher education. Prerequisite: permission of instructor.

EDHE 572. Leadership and Supervision in Higher Education (3).

Develop leadership techniques and behavior traits to improve productivity of supervisors and leaders in the workplace, while enhancing interpersonal skills for career success. Prerequisite: enrolled in master of higher education.

EDHE 581. Finance in Colleges and Universities (4).

Fundamental considerations in the finance of institutions of higher education. Prerequisite: enrolled in master of higher education.

EDHE 589. Higher Education Law (4).

Examination of legal issues relevant to American colleges and universities to provide students with the fundamental knowledge of higher education law for administrators. Prerequisite: enrolled in master of higher education.

EDHE 596. Individual Study (1-6).

May be repeated if subject is different.

EDHE 598. Special Topics (1-6). May be repeated if subject is different.

EDHE 599. Seminar (1-5). May be repeated if subject is different.

EDHE 696. Individual Study (1-6).

May be repeated if subject is different.

EDHE 698. Special Topics (1-6). May be repeated if subject is different.

EDHE 699. Seminar (1-6). May be repeated if subject is different.

EDHE 700. Master's Thesis, Project Study and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: EDHE 511 and permission of chair of student's graduate faculty supervisory committee.

Education: Library Media Courses**EDLM 510. Introduction to Library**

Media Issues (3). This course will provide an introduction to relevant issues related to library media studies; including diversity, legal issues, curriculum development, librarian roles, connectivity issues, technology and instruction. EDLM 410 and EDLM

510 are layered courses; student may not receive credit for both.

EDLM 514. Technology Tools for the Library (3). Provides an introduction to design and production of various instructional materials from manual to more complex computer techniques. Technology tools for the library, and storage media will be explored. Projects will be developed to explore the various technologies. EDLM 414 and EDLM 514 are layered courses, students may not receive credit for both.

EDLM 516. Application of Technology Resources (3). This course provides an introduction to technology tools, processes, and web applications that support information literacy. Web 2.0 and other collaboration tools will be explored. Projects will be developed to explore the application of these technologies. EDLM 416 and EDLM 516 are layered courses, students may not receive credit for both.

EDLM 526. Instructional Methods in the Library (3). Apply instructional strategies in teaching information literacy skills and motivating students to read. Explore collaborative learning techniques which will integrate information literacy skills into the standards based curriculum. EDLM 426 and EDLM 526 are layered courses, students may not receive credit for both.

EDLM 536. Survey of Children's and Young Adult Literature (3). Considers the field of children's and young adult literature; literary genres, major literary awards, leading representative authors, historical and recent trends. Includes topics of cultural diversity and reading promotion. EDLM 436 and EDLM 536 are layered courses, students may not receive credit for both.

EDLM 548. Collection Development/Library Media (3). Explore the methods used and the issues and solutions involved in developing a collection in a school library media center. EDLM 448 and EDLM 548 are layered courses; students may not receive credit for both.

EDLM 558. Cataloging and Classification for Library Media (3). Cataloging and classification of library media materials with an emphasis on MARC records. Includes Dewey Decimal classification system, authorized subject headings, and assigning MARC tags using original and copy cataloging of book and non-print items. EDLM 458 and EDLM 558

are layered courses, students may not receive credit for both.

EDLM 568. Research and Information Fluency (3). Reference tools, information sources, search strategies, research models, and evaluative techniques will be explored as tools to enable students to be more information literate. EDLM 568 and EDLM 468 are layered courses, students may not receive credit for both.

EDLM 578. Administration of Library Media Programs (3). Develops competency in administering materials, equipment, and services of library media program as integral part of the school. Focus on leadership, personnel, budgets, facility planning, state and national standards in planning, evaluation and program development. EDLM 478 and EDLM 578 are layered courses, students may not receive credit for both.

EDLM 592. Library Media Experience (1-4). An individualized field experience in a public/private school setting supervised/coordinated by faculty. By permission only.

EDLM 596. Individual Study (1-6). May be repeated if subject is different.

EDLM 598. Special Topics (1-6). May be repeated if subject is different.

EDLM 599. Seminar (1-5). May be repeated if subject is different.

EDLM 696. Individual Study (1-6). May be repeated if subject is different.

EDLM 698. Special Topics (1-6). May be repeated if subject is different.

EDLM 699. Seminar (1-6). May be repeated if subject is different.

Education: Literacy Courses

EDLT 520. Literacy Curriculum: Design and Delivery (5). An in-depth research-based analysis of literacy curriculum design and delivery in K-12 settings. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 592A.

EDLT 521. Program Organization: Literacy Coaching and Leadership (5). Literacy leadership in K-12 settings including research-based practices in coaching, supervision, program organization, grant writing, and professional development. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 592B.

EDLT 523. Issues and Trends in Literacy Research (4). Identification and in-depth study of issues and trends related to literacy instruction. Recent literacy research is pursued with emphasis on classroom application in

K-12 settings. By permission of instructor. Corequisite: EDLT 534.

EDLT 525. Psychology of Reading (3). Principles of learning and readiness, perception, psychological, and physiological aspects of reading. PSY 525 and EDLT 525 are cross-listed courses, students may not receive credit for both. Prerequisites: a reading methods course, and a basic psychology of learning course.

EDLT 526. Assessing Literacy (3). Selecting, administering, and analyzing multiple literacy assessment and diagnostic tools for use in the K-12 settings will be emphasized. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 528 and EDLT 592B.

EDLT 528. Personalizing Literacy Instruction (3). Strategies and tools for personalizing data-driven literacy instruction in a K-12 setting. Prerequisite: admission to the Master of Education Literacy Program. Corequisite: EDLT 526 and EDLT 592B.

EDLT 534. Learning Theories: Research and Applications (4). Advanced study of learning theories. Clarification of teacher beliefs, adjustment of evidence-based instructional practices with theory and research. By permission of instructor. EDLT 534 and EDSE 534 are cross-listed courses, students may not receive credit for both. Corequisite: EDLT 523.

EDLT 535. Teaching Diverse Learners (5). Advanced study of current research as it relates to the instructional, social, and emotional needs of diverse learners and differentiation of instruction to meet the needs of all learners. Specific focus on critical role of teacher-leaders as educators in their classrooms, schools, and communities. EDLT 535 and EDSE 535 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education Program or Literacy Program. Corequisite: EDSE 592C.

EDLT 536. Understanding Research Methods (3). Overview of qualitative and quantitative methods. Develop skills as critical consumers of educational research, and an understanding of evidence-based instructional practice. Focus on action research as a way to analyze and improved instructional practice. EDLT 536 and EDSE 536 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education

Program or Literacy Program.

Corequisite: EDLT 537.

EDLT 537. Designing and Writing Research (3). Develop skills of designing and writing research. Prepare a research proposal that incorporates principles, processes, values, and roles of action research. Emphasis on conducting action research as a way to analyze and improved instructional practice. EDLT 537 and EDSE 537 are cross-listed courses, students may not receive credit for both. Prerequisite: admission to the Master of Education, Special Education Program or Literacy Program. Corequisite: EDLT 536.

EDLT 590. Cooperative Education (1-8). An individualized contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Prior approval is required. May be repeated for credit.

EDLT 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a Master's program. May be repeated for credit.

EDLT 592A. Practicum: Literacy Curriculum-Design and Delivery (1). Application of literacy curriculum design and delivery K-12 settings. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program. Corequisite: EDLT 520.

EDLT 592B. Practicum: Program Organization (1). Application of program organization, literacy coaching and leadership in K-12 settings. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program. Corequisite: EDLT 521.

EDLT 592C. Practicum: Teaching Diverse Learners (1). Development and implementation of an advocacy plan related to the instructional, social, and emotional needs of diverse learners. Implementation of differentiation instruction to meet the needs of all learners. EDLT 592C and EDSE 592C are cross-listed courses, students may not received credit for both. Grade will either be S or U. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDLT 535.

EDLT 592D. Practicum: Assessing and Personalizing Literacy Growth and Development (2). Experience working with one student implementing literacy assessment and personalization

strategies. Includes the preparation of a case study. Grade will either be S or U. Prerequisite: admission to the Master of Education, Literacy Program.

Corequisite: EDLT 526 and EDLT 528.

EDLT 596. Individual Study (1-6). May be repeated for credit.

EDLT 597. Graduate Research (1-10). Individual student research under the direction of a faculty member. Maximum of 10 credits may be included on Course of Study for the Master's degree.

EDLT 598. Special Topics (1-6). May be repeated for credit.

EDLT 599. Seminar (1-5). May be repeated for credit.

EDLT 696. Individual Study (1-6). May be repeated if subject is different.

EDLT 698. Special Topics (1-6). May be repeated if subject is different.

EDLT 699. Seminar (1-6). May be repeated if subject is different.

EDLT 700. Master's Thesis, Project Study (1-6). Designed to credit and record supervised study for the publish-ready article. May be repeated for credit. Grade will either be S or U. Prerequisite: all courses in the Master of Education, Literacy Program, and permission of the chair of student's graduate faculty supervisory committee.

Education: Special Education Courses

EDSE 501. Orientation, Foundations, and Issues (Put on reserve 9/16/16) (2). Orientation of the graduate student to the Special Education Master's Degree Program. Current issues in the identification, assessment, instruction, and evaluation of students with disabilities will be explored through readings, discussions, and presentations. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.) Prerequisite: teaching experience.

EDSE 502. Equitable Differentiated Instruction (4). Provide information about students with exceptionalities, gifted/talented students and students with multicultural heritages; introduce effective strategies for teaching, adapting, and differentiating standard instruction to meet the needs of a range of students. Prerequisite: admission into the Teacher Certification, MAT Program.

EDSE 503. High-prevalence Categories of Exceptionality (Put on Reserve 9/16/16.) (3). Etiology, social issues, and management strategies for students with mental retardation, learning disabilities, and behavioral disorders. (Put on Reserve 9/16/16. Last taught in

2013. Will go inactive 8/24/19.)

Prerequisite: EDSE 501.

EDSE 512. Educational Rights of Individuals with Disabilities (3). Designed to prepare graduate students to use legal decisions to assist individuals with disabilities and their families in creating an appropriate educational environment. Prerequisite: EDSE 501 or permission of instructor.

EDSE 520. Behavioral Management and Interventions for Students with Exceptionalities (3). Advanced study of behavioral interventions used with students with exceptionalities. This course is concerned with behavioral change through monitoring of individual student progress and utilizing data collected to make precise program and instructional change. Prerequisite: admission to the Masters of Education, Special Education Program or admission to the Teacher Certification, MAT program.

EDSE 521. Functional Behavioral and Instructional Assessment (Put on reserve 9/16/17) (3). Current effective assessment processes will be defined, developed, and defended. Included will be goal establishment, rationale for assessment processes utilized, and clarification of administrative procedures. (Put on reserve 9/16/17. Will go inactive 8/24/2020.) Prerequisite: EDSE 501.

EDSE 522. Collaboration, Consultation and the Inclusive Environment (3). Prepare educators working with students with exceptionalities to reflect upon strengths in inter- and intrapersonal skills; advanced study of evidence-based practices related to working with administrators, paraeducators, the community, agencies, families, and stakeholders. Prerequisite: admission to the Masters of Education, Special Education Program; or admission to the Teacher Certification, MAT program; or admission to take Special Education Endorsement Only course sequence.

EDSE 524. Curriculum, Instruction and Assessment for Students with Exceptionalities (4). Advanced study of evidence-based and practical strategies for evaluating and implementing curriculum, instruction, and assessment for students with exceptionalities in the least restrictive environment. Prerequisite: admission to the Master of Education, Special Education Program; or admission to the Teacher Certification, MAT program; or admission to the Special Education Endorsement Only course sequence.

EDSE 525. Instruction and Assessment for Students with Disabilities (5).

Designed to examine evidence-based and practical strategies for evaluating and implementing instruction and assessments for students with disabilities. Prerequisite: admission to the Masters of Education, Special Education Program.

EDSE 531. Program Management for Students with Exceptionalities (3).

Developing Individualized Educational Programs (IEPs) and Individual Family Service Plans (IFSPs), in accordance with Public Law 94-142 (P.L. 94-142); designing collaborative comprehensive schedules, including related services, paraprofessionals, general education teachers, across environments. Prerequisite: admission to the Masters of Education, Special Education Program; or admission to the APT or MAT Programs; or admission to the special education endorsement only course sequence.

EDSE 534. Learning Theories: Research and Applications (4).

Advanced study of learning theories. Clarification of teacher beliefs, adjustment of evidence-based instructional practices with theory and research. By permission of instructor.

EDSE 535. Teaching Diverse Learners (5).

Advanced study of current research as it relates to the instructional, social, and emotional needs of diverse learners and differentiation of instruction to meet the needs of all learners. Specific focus on critical role of teacher-leaders as educators in their classrooms, schools, and communities. EDLT 535 and EDSE 535 are cross-listed courses, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 592C.

EDSE 536. Understanding Research Methods (3).

Overview of qualitative and quantitative methods. Develop skills as critical consumers of educational research, and an understanding of evidence-based instructional practice. Focus on action research as a way to analyze and improved instructional practice. EDLT 536 and EDSE 536 are cross-listed classes, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 537.

EDSE 537. Designing and Writing Research (3).

Develop skills of designing and writing research. Prepare a research proposal that incorporates

principles, processes, values, and roles of action research. Emphasis on conducting action research as a way to analyze and improved instructional practice. EDLT 537 and EDSE 537 are cross-listed courses, students may not received credit for both. Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDSE 536.

EDSE 585. Administration and Supervision of Programs for Individuals with Disabilities (Put on Reserve 9/16/16.) (3).

The course will focus on the administrative process of designing, developing, preparing for implementation, and evaluating the procedural and substantive safeguards related to administering and supervising programs for individuals with disabilities. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Prerequisite: EDSE 501.

EDSE 590. Cooperative Education (1-8).

An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

EDSE 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

EDSE 592C. Practicum: Teaching Diverse Learners (1).

Development and implementation of an advocacy plan related to the instructional, social, and emotional needs of diverse learners. Implementation of differentiation instruction to meet the needs of all learners. EDLT 592C and EDSE 592C are cross-listed classes, students may not received credit for both. Grade will either be S or U.

Prerequisite: admission to the Masters of Education, Special Education Program or Literacy Program. Corequisite: EDLT 535.

EDSE 596. Individual Study (1-6). By permission. May be repeated for credit.

EDSE 597. Graduate Research in Special Education (4).

Specialty-area research and research report preparation. May be repeated for credit. Prerequisites: EDSE 501 and EDSE 503 and EDF 510.

EDSE 598. Special Topics (1-6). May be repeated for credit.

EDSE 599. Seminar (1-5). May be repeated for credit.

EDSE 684. Internship in Professional Affiliated Disciplines (2-12).

Students will complete an internship in an affiliated area/discipline of special education, furthering understanding of practices, policies, and supports available and appropriate for individuals with disabilities and their families. Approval for the internship, specific internship goals, and activities will be arranged with the graduate committee chair and representative from the participating agency. Grade will either be S or U. Prerequisites: EDSE 501, EDSE 503, and EDF 510.

EDSE 696. Individual Study (1-6). May be repeated if subject is different.

EDSE 698. Special Topics (1-6). May be repeated if subject is different.

EDSE 699. Seminar (1-6). May be repeated if subject is different.

EDSE 700. Master's Thesis and/or Project Study (1-6).

Designed to credit and record supervised study for the Master's thesis, non-thesis project, studio project and/or public recital. Permission of chair of student's graduate faculty supervisory committee. May be repeated up to 6 credits. Grade will either be S or U.

Education Courses

EDU 503. Adolescent Development and Learning for Teachers (4).

Theoretical perspectives and empirical research on adolescent development and their implications for teaching and learning in contemporary schools.

Prerequisites: Must be accepted into the Teacher Certification MAT Program.

Must have successfully completed the following courses with B- or higher:

EDU 532 and EDU 572 and EDU 582 and (EDU 502 for students enrolled in the secondary and K-12 specialization) and (EDSE 524 for students enrolled in the special education specialization).

Taken concurrently with: EDU 563 and EDU 573 and EDU 583 and (EDSE 520 for students enrolled in the special education specialization).

EDU 504. Since Time Immemorial (4).

Since Time Immemorial curriculum for K-12 teachers. Planning, preparation, and resources for Since Time Immemorial curriculum including the history, culture, tribal sovereignty, and government of federally recognized Indian tribe or tribes in the Pacific Northwest.

Prerequisites: Must be accepted in the Teacher Certification MAT Program.

Must have successfully completed the following courses with B- or higher: EDU 503 and EDU 563 and EDU 573 and EDU 583 and (EDSE

520 for students enrolled in the Special Education Specialization).

EDU 531. Culturally Responsive Management of the Learning Environment (3). Theoretical and practical approaches to managing the contemporary learning environment. The teacher's role as a decision maker in a complex, multi-layered, and demanding environment. Prerequisite: must be accepted into the Teacher Certification MAT Program.

EDU 532. Multicultural Education for Equity, Access and Social Justice (4). Examines educational policy, practice, and materials informed by multiculturalism, social justice theory and praxis. Investigates ways in which discrimination influences schools and educational access and identifies ways to ensure all students have equitable educational opportunities. Prerequisites: Must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 551 and EDU 561 and (EDU 531 for students enrolled in the Secondary and K-12 Specialization) and (EDSE 531 for students enrolled in the Special Education Specialization).

EDU 551. Assessment (3). Research theory and practice relevant to selecting, scoring, and interpreting educational assessments. Developing, evaluating and applying tests and procedures in the measurement of intelligence, aptitude and behavior. Prerequisite: must be accepted into the Teacher Certification MAT Program.

EDU 561. Methods and Models Instruction (3). Teaching methodologies for heterogeneous classroom settings. Differentiating instructional techniques to effectively accomplish specific learning goals for students' diverse learning backgrounds and needs.

Prerequisites: must be accepted in the Teacher Certification MAT Program. Taken concurrently with EDU 551 and EDU 531 or EDSE 531.

EDU 563. Technologies for Teaching and Learning (4). Theory and practice of the integration of technology for K-12 classroom instruction and digital citizenship. Selection and utilization of digital resources for content-specific instructional needs are emphasized. Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 532 and EDU 572 and EDU 582 and (EDSE 502 for students enrolled in the secondary and K-12

specialization) and (EDSE 524 for students enrolled in the special education specialization).

EDU 572. Clinical Practice I (1). Pre-professional observation of licensed teachers. Candidates observe, identify, and develop professional teaching skills at a placement field site documenting a minimum of 100 field hours.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 551 and EDU 561 and (EDU 531 for students enrolled in the secondary and K-12 specialization) and (EDSE 531 for students enrolled in the special education specialization).

EDU 573. Clinical Practice II (1). Pre-professional observation of licensed teachers. Candidates observe, identify, and develop professional teaching skills at a placement field site documenting a minimum of 100 field hours.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 532 and EDU 572 and EDU 582 and (EDSE 502 for students enrolled in the secondary and K-12 specialization) and (EDSE 524 for students enrolled in the special education specialization).

EDU 574. Clinical Practice III (1). Pre-professional observation of licensed teachers. Candidates observe, identify, and develop professional teaching skills at a placement field site documenting a minimum of 100 field hours.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 503 and EDU 563 and EDU 573 and EDU 583 and (EDSE 520 for students enrolled in the special education specialization).

EDU 575. Legal Issues in Education (3). Contemporary educational policies and legal issues grounding the day-to-day schooling realities within a larger philosophical, historical, political, and sociological context. Overview of historical landmark legislation federal and state policies and their impact on public education. Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 504 and EDBL 514 and EDU 574 and EDU 584 and (EDSE 522 for students enrolled in the special education specialization).

EDU 582. Seminar I (4). Seminar to process, reflect upon, and enhance in-

school experience. Focuses on identifying and locating professional resources for the contemporary classroom (e.g. issues of abuse, students of trauma, duty to report).

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 551 and EDU 561 and (EDU 531 for students enrolled in the secondary and K-12 specialization) and (EDSE 531 for students enrolled in the special education specialization).

EDU 583. Seminar II (4). Seminar to process, reflect upon, and enhance in-school experience. Focus on professional growth and development through the inquiry cycle. Seminar topics include contemporary issues affecting public education.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 532 and EDU 572 and EDU 582 and (EDSE 502 for students enrolled in the secondary and K-12 specialization) and (EDSE 524 for students enrolled in the special education specialization).

EDU 584. Seminar III (5). Seminar to process, reflect upon, and enhance in-school experience. Seminar topics include the inquiry cycle, professional portfolio, TPA, certification process, and professional employment.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 503 and EDU 563 and EDU 573 and EDU 583 and (EDSE 520 for students enrolled in the special education specialization).

EDU 585. History and Philosophy in Education (3). Historical, philosophical, and theoretical underpinnings of American education from the colonial period to the present. A social and ethical look at the purposes and practices of schooling, curriculum, and the teaching practice.

Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 503 and EDU 563 and EDU 573 and EDU 583 and (EDSE 520 for students enrolled in the special education specialization).

EDU 700. Thesis, Project and/or Examination (1-6). Graduate capstone requirement in partial fulfillment of the Teacher Certification, MAT degree. Final project consists of research,

review, analysis, and a presentation. Permission of department. Grade will be S or U. May be repeated up to 3 credits. Prerequisites: must be accepted into the Teacher Certification MAT Program. Must have successfully completed the following courses with B- or higher: EDU 503 and EDU 563 and EDU 573 and EDU 583 and (EDSE 520 for students enrolled in the special education specialization).

English Courses

- ENG 500. Professional Development** (1-5). Development topics and issues for in-service and continuing education of professionals. May be repeated for credit. Grading is XG. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.
- ENG 504. Advanced Technical Writing** (5). Practice in designing, constructing, evaluating, and testing technical documents for specific purposes and organizational cultures. ENG 504 is taught online. ENG 404 and ENG 504 are layered courses; a student may not receive credit for both. Prerequisite: admission to the online professional and creative writing MA.
- ENG 510. Teaching First-year Composition** (1-5). The study and practice of the teaching of composition. Associated classroom experience as a teaching assistant or other experience as approved by the department. By permission. May be repeated for credit. Grade will either be S or U. Does not count toward the MA degree.
- ENG 511. Introduction to Graduate Writing** (2). Students will be introduced to the study and practice of professional and creative writing at the graduate level. Students will be acclimated to a fully online graduate writing program and propose a course of study for their degree. Prerequisite: admission to the Online Professional and Creative Writing MA Program.
- ENG 512. Introduction to English Graduate Study** (5). The philosophy of literature; research methods. Required of all MA candidates.
- ENG 513. Composition Theory** (5). Focuses on research, theories, and practical issues relevant to the teaching of composition.
- ENG 515. Advanced Studies in American Literature** (5). May be repeated for credit under a different subtitle. Prerequisite: ENG 512.
- ENG 517. Advanced Studies in World Literature** (5). May be repeated for

credit under a different subtitle. Prerequisite: ENG 512.

- ENG 518. Advanced Literary and Critical Theory** (5). Advanced study of the theory and practice of various critical perspectives and strategies as they inform the study of literary texts. Prerequisite: ENG 512.
- ENG 519. Advanced Studies in British Literature** (5). May be repeated for credit under a different subtitle. Prerequisite: ENG 512.
- ENG 531. Principles and Practices of TESOL** (5). Focuses on research, theories, and approaches relevant to the teaching of English to speakers of other languages. ENG 431 and ENG 531 are layered courses; students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: admittance to the TESOL Graduate Program.
- ENG 532. Phonetics and Phonology** (5). Study of English phonetics and phonology as well as pronunciation pedagogy. ENG 432 and ENG 532 are layered courses; a student may not receive credit for both. Prerequisite: admission to the TESOL Graduate Program.
- ENG 533. Second Language Acquisition** (5). Integrated historical and contemporary views on language and non-language factors affecting second language acquisition and on methodology in second language teaching and learning. Co-prerequisites: ENG 532 and admission to the Graduate English TESOL Program.
- ENG 535. Linguistics, Literature, and TESOL** (5). Linguistic perspectives on and approaches to literature, with an emphasis on poetry and prose. ENG 435 and ENG 535 are layered courses; a student may not receive credit for both. Prerequisite: admission to the TESOL Graduate Program.
- ENG 537. Pedagogical Grammar and Discourse** (5). Study of English grammar, grammar instruction, and discourse analysis. ENG 437 and ENG 537 are layered courses; a student may not receive credit for both. Prerequisite: admission to the TESOL Graduate Program.
- ENG 538. Pedagogical Grammar and Discourse II** (5). Advanced study of English grammar, discourse, and approaches to grammar instruction. Prerequisite: ENG 537.
- ENG 555. Studies in Poetry** (5). Extensive reading, analysis, and practice, at the professional level, in theories of poetics, and a representative sample of poetry. May be repeated up to 15 credits with different subtitles. ENG

455 and ENG 555 are layered courses; students may not receive credit for both. Prerequisite: admission to an English MA program.

- ENG 556. Studies in Rhetoric** (5). Extensive reading, analysis, and practice in rhetorical theories and approaches. ENG 456 and ENG 556 are layered courses; students may not receive credit for both. May be repeated up to 15 credits under a different subtitle. Course will be offered every year (Fall). Prerequisite: admission to the Online Professional and Creative Writing MA Program or instructor consent.
- ENG 564. Advanced Fiction Writing** (5). Graduate fiction writing workshop examining the craft of literary fiction, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 564 and ENG 464 are layered courses; students may not receive credit for both. Prerequisite: admission to the online professional and creative writing MA.
- ENG 565. Advanced Poetry Writing** (5). Graduate poetry writing workshop examining the genres within poetry, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 465 and ENG 565 are layered courses; a student may not receive credit for both. Prerequisite: admission to the online professional and creative writing MA.
- ENG 566. Advanced Creative Nonfiction** (5). Graduate creative nonfiction writing workshop examining the craft of creative nonfiction, as well as experimenting with form and technique, with emphasis on the revision process. Department permission. ENG 566 and ENG 466 are layered courses; a student may not receive credit for both. Prerequisite: admission to the online professional and creative writing MA.
- ENG 568. Contemporary Writers Colloquium** (5). Mixed-genre writing workshop featuring a schedule of visiting writers. Students will read work by visiting writers, develop critical thinking about craft, view readings and craft talks, explore contemporary publishing issues, and write both analytical papers and creative work. May be repeated up to 20 credits. ENG 468 and ENG 568 are layered courses; a student may not receive credit for both. Prerequisite: at least one of the following 400-level writing workshop classes: ENG 465 or ENG 464 or ENG 466.

ENG 572. Workplace Writing

Research Methods (5). Students will develop a mastery of workplace writing research methods and methodologies. ENG 572 and ENG 472 are layered courses; a student may not receive credit for both. Prerequisite: ENG 310 or permission of instructor; admission to the Online Professional and Creative Writing MA Program.

ENG 573. Grant Writing: Theory and Practice

(5). This advanced course introduces students to the theoretical and practical aspects of the grant writing process, especially as it pertains to funding opportunities for education and non-profits. ENG 473 and ENG 573 are layered courses, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: admission to the MA in Professional and Creative Writing Program, OR by instructor permission.

ENG 574. Professional Writing with New Media

(5). This advanced writing course introduces students to the theoretical and practical aspects of a specific professional writing genre or specialization involving new media. Course will be offered every year. ENG 474 and ENG 574 are layered courses, students may not receive credit for both. May be repeated up to 15 credits under a different subtitle in the same career (i. e. undergraduate or graduate). Prerequisites: admission to the MA in Professional and Creative Writing Program or by instructor permission.

ENG 580. CWWP I: Writing Pedagogy

(6). Summer course in which K-12 teachers learn to implement writing and language arts across the curriculum and prepare to lead teacher in-service workshops. Participants must register concurrently for EDCS 581. By permission.

ENG 585. Publishing Strategies and Practice for Writers

(5). Students will develop skills for creating a multi-platform writer's profile, and strategies for effectively presenting, promoting and expanding the audience for their work. Permission by instructor. Prerequisite: 27 credits in the online professional and creative writing MA.

ENG 588. Thesis/Project Colloquium

(2). This course covers applied English research skills, including forms of inquiry, literature reviews, annotated bibliographies, and scholarly conventions. Students will produce a formal research proposal. Prerequisites: ENG 512 and graduate GPA of 3.7 or higher.

ENG 589. Portfolio (3). Students prepare an end of program portfolio of professional-level writing projects. Permission of department. Prerequisite: 37 credits in the Online Professional and Creative Writing MA Program.

ENG 591. Workshop (1-6). May be repeated for credit.

ENG 592. Practicum (1-5). Supervised field experience in literacy education or teaching English as a second language/foreign language. May be repeated for credit. Grade will either be S or U.

ENG 595. Graduate Research (2-10). For students doing advanced research, writing, and study. May be repeated for credit. Grade will either be S or U. Students using faculty time and departmental resources for thesis work must be registered for ENG 595 or 700. May not be included in the course of study for the master's degree. Prerequisite: ENG 512.

ENG 596. Individual Study (1-6). May be repeated for credit.

ENG 598. Special Topics (1-6). May be repeated for credit.

ENG 599. Seminar (1-5). May be repeated for credit.

ENG 696. Individual Study (1-6). May be repeated if subject is different.

ENG 698. Special Topics (1-6). May be repeated if subject is different.

ENG 699. Seminar (1-6). May be repeated if subject is different.

ENG 700. Master's Thesis/Project (1-6). Designed to credit and record supervised study for the master's thesis/project. May be repeated up to 6 credits. Grade will either be S or U.

English as a Second Language Courses**ESL 100AR. Academic Research**

(2). This course is part of the UESL Conditional Admission for Graduate Studies program. This course will help students develop an understanding of the standards for scholarship, develop basic research skills and strategies, and understand academic honesty and digital citizenship. Students who take this class will not receive credit towards degree requirements.

Permission of department. Course will not have an established scheduling pattern (Spring, Summer).

Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R and ESL90W and ESL90OC and either ESL90T or ESL90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Co-requisites: ESL 100CC and ESL 100LS and ESL100 RW and ESL 100RV.

ESL 100CC. Academic Classroom

Culture (1). Academic Classroom Culture Preparation is an advanced English as a second language course. This course provides strategies to improve the skills necessary for college study. Students will learn to participate effectively in a variety of academic situations. Students who take this class will not receive credit towards degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL 90R and ESL 90W and ESL 90OC, and either ESL 90T or ESL 90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL 100RW and ESL 100RV and ESL 100LS and ESL 100AR.

ESL 100LS. Academic Listening and Speaking

(3). Academic Listening and Speaking is an advanced level course designed to develop the listening and speaking skills necessary to function in an academic environment. Students who take this class will not receive credit toward degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer).

Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R and ESL90W and ESL90OC and either ESL90T or ESL90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL 100CC and ESL 100RW and ESL 100RV and ESL 100AR.

ESL 100RV. Academic Reading and Vocabulary

(3). Academic Reading and Vocabulary is an advanced level course designed to develop reading skills and build vocabulary at the college level in preparation for graduate study. Students who take this class will not receive credit towards degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R, ESL90W, ESL90OC, and either ESL90T or ESL90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL100CC, ESL100RW, ESL100LS, and ESL100AR.

ESL 100RW. Research Writing

(3). Research Writing is a college level course designed to practice the

academic writing commonly found in American colleges and universities. Students who take this class will not receive credit toward degree requirements. Permission of department. Course will not have an established scheduling pattern (Spring, Summer). Prerequisites: Completion of the UESL Program with a recommendation (received a B or higher in ESL90R, ESL90W, ESL90OC, and either ESL90T or ESL90A); or received TOEFL 71 iBT or higher; or IELTS 6.0 or higher. Corequisites: ESL100CC, ESL100RV, ESL100LS, and ESL100AR.

Engineering Technologies, Safety, and Construction Courses

ETSC 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. Formerly IET 500, students may not receive credit for both. May be repeated for credit.

ETSC 501. Industrial and Academic Research Methods (4). An introduction to the research methods and tools used for industrial research. Topics include problem definition, review of literature, types of research, research design, analysis of results, writing a research proposal, writing a research paper, and analytical tools used for applied research by engineers and technologists in industry. Formerly IET 501, students may not receive credit for both.

ETSC 512. Alternative Energy Systems (4). Study of alternative energy technology and their societal issues. Similar to MET 412. Credit for both granted only by department chair. Formerly IET 512, students may not receive credit for both.

ETSC 521. Product Design and Development (4). Methodology for the design and development of industrial and commercial products from conceptual stage to saleable product. Three hours lecture and two hours laboratory per week. Formerly IET 521, students may not receive credit for both. Prerequisite: MET 419.

ETSC 523. Development of Emerging Technologies (4). Study of technological advances in materials, manufacturing, electronics, and instrumentation, with an emphasis on innovative design, development of new products and services, and strategic management of intellectual property.

Formerly IET 523, students may not receive credit for both.

ETSC 524. Quality Control (4). Provides foundation for understanding and applying statistical quality control techniques and product reliability procedures. Similar to ETSC 380. Credit for both granted only by department chair. Formerly IET 524, students may not receive credit for both. Prerequisites: OMIS 221 or permission of instructor.

ETSC 525. Systems Analysis and Simulation (4). Theoretical and practical techniques for modeling and analyzing various systems including product designs, manufacturing facilities, and fluid/thermal systems. System testing and evaluation methodology will be investigated. Formerly IET 525, students may not receive credit for both. Prerequisite: MET 327 or permission of instructor.

ETSC 526. Engineering Project Cost Analysis (4). Techniques of economic cost analysis and modeling applied to engineering projects. Similar to ETSC 301. Credit for both granted only by department chair. Formerly IET 526, students may not receive credit for both.

ETSC 530. Fundamentals of Lasers (Put on reserve 9/16/18) (4). Overview of laser technology with emphasis on characteristics, safety, and application. Four hours lecture per week. Formerly IET 530, students may not receive credit for both. (Put on reserve 9/16/18, will go inactive 8/24/21) Prerequisite: PHYS 113.

ETSC 532. Generation and Transmission of Electrical Power (4). A study of the generation and transmission of electrical energy. Similar to EET 432. Credit for both granted only by department chair. Formerly IET 532, students may not receive credit for both. Prerequisite: EET 332.

ETSC 540. Work Design and Facilities Layout (4). Analysis of work process requirements and translation into work designs, and into space, layout, and adjacency requirements. Optimization of throughput, efficiency, workflow, safety, health, and usability. Integration of material handling, storage systems, and mechanical systems. Formerly IET 540, students may not receive credit for both.

ETSC 541. Industrial Operations Management (4). Operations Management within the context of Industrial Engineering. Topics include, but are not limited to, forecasting, scheduling, lean production, capacity

management, inventory management, aggregate planning, supply chain management, logistics, maintenance and reliability, and decision making. Formerly IET 541, students may not receive credit for both. Prerequisite: ETSC 540 or permission of instructor.

ETSC 552. LEED in Sustainable Construction (4). The process using LEED as a measurement for sustainable construction. The course covers benefits and mechanisms of green building, cost analysis, and professional problem solving. Develop and present research on sustainability. Formerly IET 552, students may not receive credit for both.

ETSC 555. Engineering Project Management (4). Project-based synthesis used in engineering project management. Topics; bidding, contract management, scheduling, cost estimating and control, logistics, conflict management, team building, negotiating, and risk assessment. ETSC 455 and ETSC 555 are layered courses; student may not receive credit for both. Instructor consent should be based on student industrial experience and career goals. Formerly IET 555, students may not receive credit for both. By permission.

ETSC 560. Finite Element Analysis (4). Computerized modeling of structural, vibrational, and thermal design problems. Lecture and laboratory. Similar to MET 420. Credit for both granted only by department chair. Formerly IET 560, students may not receive credit for both. Prerequisites: ETSC 160 and MET 426.

ETSC 577. Robotics (Put on reserve 9/16/18) (4). Microprocessor applications in robotics, automated systems, and digital control. Lecture and laboratory. Similar to EET 477. Credit for both granted only by department chair. Formerly IET 577, students may not receive credit for both. (Put on reserve 9/16/18, will go inactive 8/24/21) Prerequisites: EET 375 and EET 342.

ETSC 582. Plastics and Composites (4). Composition, characteristics and classifications of plastics and composite materials incorporating design, industrial applications, processing, and fabrication. Similar to MET 382. Credit for both granted only by department chair. Formerly IET 582, students may not receive credit for both. Prerequisites: CHEM 111/111L or CHEM 181/181L.

ETSC 583. Ceramics and Composites (4). Composition characterization and classification of ceramics and related

composite materials incorporating industrial applications, processing, and fabrication. Similar to MET 483. Credit for both granted only by department chair. Formerly IET 583, students may not receive credit for both.

Prerequisites: CHEM 111 or CHEM 181.

ETSC 589. Master's Capstone (3-4).

This seminar provides a review of the required courses and preparation for and administration of the comprehensive exam taken by MSET students. The review will also contribute to the program curriculum development. Formerly IET 589, students may not receive credit for both. Prerequisites: within 10 credits of graduation or permission of the instructor and admission to the Master of Science in Engineering Technology Program.

ETSC 592. Field Studies (1-10). May be repeated for credit. No more than 10 credits may be taken toward the master's degree. Formerly IET 592, students may not receive credit for both. Prerequisite: faculty advisor and department approval.

ETSC 595. Graduate Research (1-6). Conduct research or use for program evaluation activity. Maximum of six credits may be included on the course of study for the master's degree. Formerly IET 592, students may not receive credit for both. Prerequisite: permission of advisor.

ETSC 596. Individual Study (1-6). May be repeated for credit. Formerly IET 596, students may not receive credit for both.

ETSC 598. Special Topics (1-6). Formerly IET 598, students may not receive credit for both.

ETSC 599. Seminar (1-5). May be repeated for credit. Formerly IET 599, students may not receive credit for both.

ETSC 696. Individual Study (1-6). May be repeated if subject is different.

ETSC 698. Special Topics (1-6). May be repeated if subject is different.

ETSC 699. Seminar (1-6). May be repeated if subject is different.

ETSC 700. Master's Thesis, Project Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Formerly IET 700, students may not receive credit for both. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Family and Child Life Courses

FCL 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

FCL 501. Research Methods (5). An examination of methods of conducting research on human behavior with an emphasis on application to family science and child life. Students conduct a research study in the area of family and child life. Formerly FCSG 501, students may not receive credit for both.

FCL 502. Statistics (4). Introduction to the statistics in social sciences. Topics include conducting analyses relevant to family and child life research using computer software, evaluating the results of statistical analyses, and drawing appropriate conclusions. CTE 502, FCSG 502 and FCL 502 are equivalent courses; students may receive credit for only one course. Formerly FCSG 502, students may not receive credit for both. Course will be offered every year (Winter).

FCL 503. Family Communication (4). This course is designed to provide an overview of family dynamics and the processes that influence family communication and family functioning. FCL 403, COM 403, and FCL 503 are cross-listed courses; students may not receive credit for more than one.

FCL 509. Civic Engagement (3). Student will use program of study content knowledge to improve a community situation. UNIV 509, FCL 509, EDAD 509, and EDCS 509 are layered courses; students may only receive up to 12 credits. Formerly FCSG 509. May be repeated for credit. Grade will either be S or U.

FCL 514. Coping with Grief and Loss (4). Theories and research about the grief process, coping, and resilience through a developmental lens. Students will learn tools to talk to adults and children about death and bereavement and to work with families experiencing loss. FCL 414 and FCL 514 are layered courses; student may not receive credit for both.

FCL 515. Therapeutic Play (4). Application of play theories to intervene with children and families. Content will include classical and contemporary theories of play, play across child development, assessment using play, and skills to facilitate play

sessions in various contexts. FCL 415 and FCL 515 are layered courses; students may not receive credit for both. Course will be offered every year (Winter).

FCL 516. Child Life I: Child Life Scope of Practice (4). Introduction to the child life profession including history and scope of the practice of child life; impact of stress, trauma, and hospitalization on children and families; skills for providing therapeutic intervention with medically fragile children. Formerly FS 516, students may not receive credit for both. FCL 416 and FCL 516 are layered courses; students may not receive credit for both. Course will be offered every year (Winter). Prerequisite: admission to Family and Child Life MS program.

FCL 517. Pediatric Diagnoses and Medical Terminology (4). Understanding of common pediatric diseases and diagnoses, medical terminology, childhood hospitalization, corrective pediatric care, hospital technology, and medical documentation relevant to work as a child life specialist. FCL 417 and FCL 517 are layered courses; students may not receive credit for both. Prerequisite: admitted to Family and Child Life, MS Program.

FCL 518. Child Life II: Impact of Child Hospitalization (4). Advanced understanding of the child life profession including ethical issues, multi-cultural perspectives, pain management, program administration and supervision, current research, and communication, and therapeutic relationships in a hospital context. Formerly FS 518, students may not receive credit for both. FCL 418 and FCL 518 are layered courses; students may not receive credit for both. Course will be offered every year (Spring). Prerequisite: admission to Family and Child Life MS program.

FCL 519. Research in Family and Child Life (5). Methods of research used in studying families and relationships, including measurement, research design, ethics, sampling, and casual inference. Students will complete a research project emphasizing application of material. FCL 419 and FCL 519 are layered courses; students may not receive credit for both. Formerly FS 519; students may not receive credit for both.

FCL 522. Survey of Research (1-5). The historical, philosophical, and legislative basis of program

development and profession growth. CTE 522 and FCL 522 are cross-listed courses; students may not receive credit for both. Formerly FCSG 522. May be repeated for credit. Formerly FS 522, Students may not receive credit for both.

FCL 526. Program Delivery Methods (1-5). Course addresses theories of learning and human development in selecting program delivery strategies and resources. Includes models for management, assessment, evaluation, and public relations. CTE 526 and FCL 526 are cross-listed courses; students may not receive credit for both. Formerly FCSG 526. May be repeated for credit.

FCL 532. Family Interaction (4). Analysis of relevant literature associated with establishing and maintaining interpersonal and family relationships. Formerly FS 532, students may not receive credit for both. Prerequisite: 8 credits of upper-division coursework in family studies or the behavioral sciences.

FCL 533. Family Life Education (4). The broad objective, trends, methods and materials of family life education programs in various settings. FCL 433 and FCL 533 are layered courses; students may not receive credit for both. Formerly FS 533, students may not receive credit for both. Course will be offered every year (Fall).

FCL 534. Therapeutic Applications of Child Development (4). Application of child development to work with children and families across many contexts, including in medical settings as a Child Life Specialist. Developmental and systemic perspectives in assessing and intervening with issues in childhood. Course will be offered every year (Winter). Prerequisite: admission to the Family and Child Life Graduate Program.

FCL 539. Families and Public Policy (4). Impact of governmental policies on families; policy implications of changes in the structure and composition of families. Requires attendance at two events outside scheduled class time: poverty simulation and meeting with state policymakers. Formerly FS 539, FCL 439 and FCL 539 are layered courses; students may not receive credit for both. Course will be offered every year (Winter).

FCL 542. Conflict Management (Put on reserve 9/16/18) (3). Introduction to conflict management. Topics include using power, analyzing personality traits, assessing conflict, negotiating

skills, mediating skills, and how to build partnerships and long-term positive relationships in the work place and in one's personal life. Formerly FS 542, students may not receive credit for both. (Put on reserve 9/16/18, will go inactive 8/24/21)

FCL 544. Family Problems and Mediation (4). Problems arising out of the interaction of family members. Mediation techniques, family policy, and theories and ethics in studying families. FCL 334 and FCL 544 are equivalent courses; students may not receive credit for both. Formerly FS 544, students may not receive credit for both.

FCL 545. Family Gerontology (4). A review of the research literature on families in later life, focusing on family interactions and building family strengths. FCL 435 and FCL 545 are layered courses; students may not receive credit for both. Formerly FS 545, students may not receive credit for both. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: admission to the family studies graduate program or permission of instructor.

FCL 547. Families and Poverty (4). This course explores how families experience poverty, including its consequences on family formation, relationships, and well-being. It also critically examines policies designed to reduce family poverty and their impacts on society.

FCL 580. Administration (1-5). The study of the administration and directorship of the laws, trends, issues and agency or program standards. CTE 580 and FCL 580 are cross-listed courses; students may not receive credit for both. Formerly FCSG 580. May be repeated for credit.

FCL 581. Program Resource Management (1-5). Grant writing and the study of the local, state, and federal financing (both revenue and expenditure). CTE 581 and FCL 581 are cross-listed courses; students may not receive credit for both. Formerly FCSG 581. May be repeated for credit.

FCL 582. Curriculum Development (1-5). Use program standards to determine and develop program scope and content. CTE 582 and FCL 582 are cross-listed courses, students may not receive credit for both. Formerly FCSG 582. May be repeated for credit.

FCL 583. Partnerships and Advisory Committees (1-5). Examination of how education systems create and use industry partnerships, and advisory

committees to enhance education programs. CTE 583 and FCL 583 are cross-listed courses; students may not receive credit for both. Formerly FCSG 583. May be repeated for credit.

FCL 584. Supervision and Evaluation (1-5). The development of constructive guidance, observation and assessment skills. CTE 584 and FCL 584 are cross-listed courses; students may not receive credit for both. Formerly FCSG 584. May be repeated for credit.

FCL 590. Cooperative Education (1-12). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. Formerly FS and FCSG 590. May be repeated for credit. Grade will either be S or U.

FCL 592. Family and Child Life Practicum (1-6). Supervised practicum experience in family and child life. FCL 492 and FCL 592 are layered courses; a student may not receive credit for both. Formerly FCSG 592, students may not receive credit for both. May be repeated up to 15 credits. Course will be offered every year (Fall, Winter, Spring and Summer). Prerequisite: student must be at graduate standing to enroll in this course.

FCL 595. Graduate Research (1-10). Development and investigation of an approved laboratory or field research problem. Formerly FCSG 592, students may not receive credit for both. By permission. Maximum of 6 credits may be included in course of study for the master's degree. Course will be offered every year (Fall, Winter, Spring, Summer).

FCL 596. Individual Study (1-6). May be repeated for credit.

FCL 598. Special Topics (1-6). May be repeated for credit.

FCL 599. Seminar (1-5). May be repeated for credit.

FCL 696. Individual Study (1-6). May be repeated if subject is different.

FCL 698. Special Topics (1-6). May be repeated if subject is different.

FCL 699. Seminar (1-6). May be repeated if subject is different.

FCL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

Finance Courses

FIN 570. Advanced Financial

Management (5). An in-depth and rigorous review of the theory and empirical evidence related to the investment and financing policies of the firm, including, financial evaluations, capital management, financial decisions, and risk analysis through lectures and cases.

Prerequisite: admission to the Master of Professional Accountancy Program.

FIN 596. Individual Study (1-6). May be repeated if subject is different.

FIN 598. Special Topics (1-6). May be repeated if subject is different.

FIN 599. Seminar (1-5). May be repeated if subject is different.

FIN 696. Individual Study (1-6). May be repeated if subject is different.

FIN 698. Special Topics (1-6). May be repeated if subject is different.

FIN 699. Seminar (1-6). May be repeated if subject is different.

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. ANTH 427, ANTH 527, GEOG 427, GEOG 527 are cross-listed courses; students may not receive credit for more than one. Graduate credit requires an additional research paper to be specified in syllabus. Prerequisites: ANTH 120 or GEOG 107.

GEOG 583. Snow (5). Processes and factors resulting in snowfall, snowfall patterns over space and time, snowpack development and metamorphosis, snowfall and snowpack measurement, impacts of snowfall and snowpack on avalanches, landforms, vegetation, and runoff, and snowfall and snowpack in a warming world. GEOG 483 and GEOG 583 are layered courses; a student may not receive credit for both. Course will be offered every year (Winter).

Prerequisite: GEOG 107 or instructor permission.

GEOG 596. Individual Study (1-6). May be repeated for credit.

GEOG 598. Special Topics (1-6). May be repeated if subject is different.

GEOG 599. Seminar (1-5). May be repeated for credit.

GEOG 696. Individual Study (1-6).

May be repeated if subject is different.

GEOG 698. Special Topics (1-6). May be repeated if subject is different.

GEOG 699. Seminar (1-6). May be repeated if subject is different.

Geological Sciences Courses

GEOLOG 501. Current Topics in Geology

(3). Course will introduce beginning graduate students to current research topics in a variety of subdisciplines in geology through readings, discussions, and student presentations.

GEOLOG 502. Regional Field Geology of the Pacific Northwest (2). Field studies in the Pacific Northwestern United States and Canada.

GEOLOG 503. Introductory Graduate Research Methods (3). Discussion and exploration of research methods in geology, including library and Internet resources, thesis project selection and design, and literature review. Three hours per week. Prerequisites: GEOLOG 501 and GEOLOG 502.

GEOLOG 504. Graduate Seminar Series

(1). Research seminar series comprising the Geological Sciences weekly seminar series. Includes discussion with speaker following seminar. May be repeated for a total of 12 credits. Grade will either be S or U.

GEOLOG 515. Earthquake Geology and Neotectonics

(5). Geomorphology, stratigraphy, and structural geology applied to the study of active faults and folds in a variety of tectonic settings. Relation of seismicity and geodetic measurements to geologic structure and active tectonic processes. Three hours of lecture and four hours of laboratory per week. GEOLOG 415 and GEOLOG 515 are layered courses; students may not receive credit for both.

Prerequisites: Either GEOLOG 101 or 102, and 101LAB.

GEOLOG 523. The Cryosphere

(5). Components of the cryosphere (ice sheets, mountain glaciers, ice shelves, global snow cover, sea ice extent, and permafrost/frozen ground) will be examined, including anticipated changes in the cryosphere due to changing climate. GEOLOG 423 and GEOLOG 523 are layered courses; students may not receive credit for both. Course will be offered on even numbered years (Winter). Prerequisites: GEOLOG 501 and GEOLOG 502.

GEOLOG 525. Environmental

Geochemistry (5). Global geochemical cycles, influences of rocks and soils on water chemistry, behavior of isotopes and trace elements. Includes class project studying local environmental geochemistry topic. Three lectures plus one three-hour lab per week. GEOLOG 425 and GEOLOG 525 are layered courses; students may not receive credit

for both. Prerequisites: CHEM 181, 181LAB, CHEM 182, and 182LAB.

GEOLOG 530. Remote Sensing

(5). Principles of acquisition, analysis, and use of remotely sensed data (LANDSAT, SPOT, Ikonos, etc.). Applied experience using image-processing software. Three hours lecture and three hours laboratory per week. GEOLOG 430, 530, and GEOLOG 430 are cross-listed courses; students may not receive credit for more than one. Prerequisites: GEOLOG 410 or GEOLOG 210.

GEOLOG 532. Field Geodetic Techniques

(3). Training in field geodetic techniques, including scientific application of two or more precision-surveying instruments: geodetic GPS, differential GPS, and electronic distance meter. Three hours a week and field project, or one-week field course. GEOLOG 432 and GEOLOG 532 are layered courses; students may not receive credit for both. Prerequisites: GEOLOG 101 or GEOLOG 102, 101LAB, GEOLOG 200, and GEOLOG 210.

GEOLOG 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. GEOLOG 434 and GEOLOG 534 are layered courses; students may not receive credit for both. Prerequisites: GEOLOG 101, 101LAB, GEOLOG 370, and either GEOLOG 200 or GEOLOG 210.

GEOLOG 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. GEOLOG 441 and GEOLOG 541 are layered courses; students may not receive credit for both. Prerequisite: GEOLOG 200.

GEOLOG 545. Hydrogeology

(5). Study of the occurrence and movement of ground water using geology, hydrology, and geochemistry, with an emphasis on practical problems in water management. Three hours lecture and three hours laboratory per week. GEOLOG 445 and GEOLOG 545 are layered courses; students may not receive credit for both. Prerequisites: GEOLOG 101 or GEOLOG 102, 101LAB, and MATH 154.

GEOLOG 553. Seismology

(5). Elasticity theory, the wave equation, ray theory, diffraction, waveform modeling, travel time inversion. Data analysis. Three hours lecture and four hours of scientific computing lab per week.

Offered alternate years. GEOL 453 and GEOL 553 are layered courses; students may not receive credit for both. Prerequisite: MATH 173.

GEOL 556. Geodynamics (5). Study of plate tectonics and mountain building processes that shape our Earth. Lab includes introduction to Matlab software for analysis and visualization. Required field trip. GEOL 456 and GEOL 556 are equivalent courses; student may not receive credit for both. Prerequisite: GEOL 101. Co-requisite: MATH 172.

GEOL 565. Tectonic Evolution of Orogenic Belts (2). Overview of the tectonic, structural, stratigraphic, and geophysical evolution of orogenic belts. Two hours of discussion and student presentation per week. May be repeated once for credit under a different title.

GEOL 570. Fluvial Geomorphology (4). Advanced course covering hydrologic and geomorphic processes in rivers. Exploration of current geomorphic research, practical experience in field techniques, and geomorphic models. Prerequisite: GEOL 386.

GEOL 574. Quaternary Geology (4). Study of geological processes affecting Earth's most recent history. Course emphasizes global quaternary environmental change, glacial epochs, paleoclimatic methods, and dating techniques. GEOL 474 and 574 are layered courses; students may not receive credit for both. Prerequisite: GEOL 386.

GEOL 575. Petrography and Petrogenesis (5). Petrogenetic, hand specimen and thin section study of igneous, metamorphic or sedimentary rocks. Three hours lecture and four hours laboratory or field work per week. Required field trips. GEOL 475 and GEOL 575 are layered courses; students may not receive credit for both. Offered in alternate years. By permission.

GEOL 576. Advanced Sedimentology (4). Sediments, sedimentary rocks, and advanced lab and field techniques for students interested in conducting research or working in sedimentology-related fields. Required field trips. GEOL 476 and GEOL 576 are layered courses; students may not receive credit for both. Prerequisite: graduate standing.

GEOL 577. Tsunami Geology and Geophysics (2). Course will cover the current science of paleotsunami research, an overview of modern survey observations, the basic physics

of tsunami generation and propagation, and introduce students to tsunami modeling methodologies. GEOL 477 and GEOL 577 are cross-listed; students may not receive credit for both. Prerequisite: graduate standing.

GEOL 578. Volcanology (5). Study of volcanoes and associated deposits, styles of eruption, physical and chemical controls on eruption mechanisms and volcanic hazards and hazard mitigation. Three hours lecture and four hours laboratory per week. Required field trips. GEOL 478 and GEOL 578 are layered courses; students may not receive credit for both. Offered in alternate years. By permission.

GEOL 583. Isotope Geochemistry (5). Covers principles of isotope geochemistry and applications to studies of geological processes such as hydrologic cycling, volcanic petrogenesis, and climate change. Three hours lecture per week and required laboratory work and field trips. GEOL 483 and GEOL 583 are layered courses; students may not receive credit for both. Offered in alternate years. Prerequisites: CHEM 182, 182LAB, and MATH 154.

GEOL 584. Geochronology (5). Principles, analytical methods, and interpretation of several of the most widely applied geochronologic methods. Computer-based data analysis of problems in igneous and metamorphic petrology, structural geology, sedimentary geology, geomorphology, paleoseismology, and planetary science. GEOL 484 and 584 are layered courses; students may not receive credit for both. Prerequisites: MATH 172 and GEOL 346.

GEOL 595. Graduate Research (1-10). May be repeated for credit. Grade will either be S or U.

GEOL 596. Individual Study (1-5). May be repeated for credit.

GEOL 598. Special Topics (1-6). May be repeated for credit.

GEOL 599. Seminar (1-5). May be repeated for credit.

GEOL 696. Individual Study (1-6). May be repeated if subject is different.

GEOL 698. Special Topics (1-6). May be repeated if subject is different.

GEOL 699. Seminar (1-6). May be repeated if subject is different.

GEOL 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project,

public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

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. May be repeated for credit.

HED 590. Cooperative Education (1-6). An individualized contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.

HED 591. Workshop (1-6). May be repeated for credit.

HED 596. Individual Study (1-6). By permission. May be repeated for credit.

HED 598. Special Topics (1-6). May be repeated for credit.

HED 599. Seminar (1-5). May be repeated for credit.

HED 696. Individual Study (1-6). May be repeated if subject is different.

HED 698. Special Topics (1-6). May be repeated if subject is different.

HED 699. Seminar (1-6). May be repeated if subject is different.

History Courses

HIST 511. Historiography (5).

HIST 512. History Graduate Readings Seminar (5). May be repeated for credit.

HIST 515. History Graduate Research Seminar (5). May be repeated for credit.

HIST 522. Roman and Medieval Britain (5). The British Isles from Roman times to the beginnings of the Tudor dynasty. Course will cover the rise of the English monarchy, the creation of parliament, and the colonization of the British Isles. HIST 422 and HIST 522 are layered courses; students may not receive credit for both.

HIST 523. The Irish Revolution (5). History and historiography of the Irish revolution. Topics include the constitutional and revolutionary antecedents, the course of the revolution, and the foundation of the Irish Free State. HIST 423 and HIST 523 are layered courses; students may not receive credit for both.

- HIST 524. Modern Ireland 1798-Present** (5). The history of Ireland from the revolt of 1798 through the present. Focus will be on the varieties of Irish nationalism, the process of state-building, and the ongoing troubles in the north. HIST 424 and HIST 524 are layered courses; students may not receive credit for both.
- HIST 526. France 1789-1945** (5). French history through the lens of revolution. Discussions of the variety of French revolutions (1789, 1792, 1830, 1848, 1870) and concluding with the National Revolution of Vichy France. HIST 426 and HIST 526 are layered courses; students may not receive credit for both.
- HIST 527. Modern Britain and the Empire since 1763** (5). History of Britain and the Empire since the Seven Years' War. Topics include growth of the empire, industrialization, political reform, world wars, decolonization, and post-war social changes. HIST 427 and HIST 527 are layered courses; students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: Graduate/post-baccalaureate status or permission.
- HIST 528. Early Modern Britain 1485-1763** (5). History of the Britain and the Empire during the Tudor-Stuart and early Hanoverian periods. Topics covered include the origins of the British Empire, the development of the British state, the Civil War and the Glorious Revolution. HIST 428 and HIST 528 are layered courses, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: Graduate standing or permission of instructor.
- HIST 529. Ireland and Empire** (5). Study of the interactions between Ireland and various world empires. The major emphasis will be Irish interaction with the British Empire, but there will also be discussion of Ireland's interaction with other global empires. HIST 429 and HIST 529 are layered courses; a student may not receive credit for both.
- HIST 534. American Indian History to 1795** (5). Discussion and lecture course on Native American history from 1492 to the founding of the American Republic in 1789, and an introduction to the discipline and practice of ethnohistory, which combines traditional historical analysis with ethnographic concepts and research methodologies. HIST 434 and 534 are layered courses; students may not receive credit for both.
- HIST 538. American Indian History since 1795** (5). Examines American Indian history since the Treaty of Greenville, wherein the U.S. recognized tribal sovereignty. Themes include resistance, assimilation, cultural revitalization, federal Indian policy, sovereignty, and reservation economics. HIST 438 and HIST 538 are layered courses; students may not receive credit for both.
- HIST 540. The American Revolution** (5). Causes and consequences of the American Revolution, 1688-1789. HIST 440 and HIST 540 are layered courses; students may not receive credit for both.
- HIST 542. Jefferson, Jackson, and American Growth, 1800-1848** (5). Election of Jefferson to ratification of the Treaty of Guadalupe Hidalgo. Examines growth of political parties; development of a "working" and a "middle" class; changing gender relations; Manifest Destiny; Indian Removal; expansion of slavery; and revolutions in transportation, communication, and markets. HIST 442 and 542 are layered courses; students may not receive credit for both.
- HIST 543. The West in American History** (5). Exploration, territorial acquisition, patterns of settlement, economic development, and the influence of the frontier on American institutions. HIST 443 and HIST 543 are layered courses; students may not receive credit for both.
- HIST 544. Sectionalism, Civil War, and Reconstruction** (5). Slavery, the Old South, sectionalism, the breakdown of the Union, and secession. A military, political, and social history of the North and South during the Civil War, and the aftermath of the war. HIST 444 and HIST 544 are layered course; students may not receive credit for both.
- HIST 550. Exploring U.S. Cultural History** (5). Thematic approach to 19th-century cultural transformations in the U.S. Selected topics; mesmerism, utopias, true womanhood, women's rights, slave spirituals, confidence men, gold rushes. HIST 450 and HIST 550 are layered courses; students may not receive credit for both.
- HIST 551. 20th-century U.S. 1896-1919 (Put on reserve 9/16/17)** (5). Imperialism, progressivism, and World War I. HIST 451 and HIST 551 are layered courses; students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)
- HIST 552. 20th-century U.S. 1919-1945** (5). Prosperity and depression; the New Deal and its implications; World War II, origins and conclusion. HIST 452 and HIST 552 are layered courses; students may not receive credit for both.
- HIST 553. 20th-century U.S. 1945 to the Present (Put on reserve 9/16/17)** (5). Cold War, sedentary 50s, rebellious 60s, the Watergate era. HIST 453 and HIST 553 are layered courses; students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)
- HIST 554. American Environmental History** (5). Environmental values and practices of the diverse populations of America. HIST 454 and HIST 554 are layered courses; students may not receive credit for both.
- HIST 560. Religion in Latin America** (5). Analyzes the relationship between individuals, religions and religious movements, and the state from the pre-Columbian era to the present. HIST 460 and HIST 560 are layered courses; students may not receive credit for both.
- HIST 561. History of Health and Healing in Africa** (5). This course explores different African societies' approaches to the ideas of personal and social health, healing, and medicine, and how these have changed over time. HIST 461 and HIST 561 are layered courses; students may not receive credit for both.
- HIST 562. History of American Foreign Relations, 1900-1941** (5). From the Spanish-American War to Pearl Harbor. HIST 462 and HIST 562 are layered courses; students may not receive credit for both.
- HIST 563. History of American Foreign Relations Since 1941 (Put on reserve 9/16/17)** (5). From Pearl Harbor to the present. HIST 463 and HIST 563 are layered course; students may not receive credit for both. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)
- HIST 564. Latin American Revolutions (Put on Reserve 9/16/16)** (5). Analyzes revolutions and peasant revolts in Latin America and the Caribbean from 1750 to the present. HIST 464 and HIST 564 are layered courses, students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)
- HIST 565. History of the People's Republic of China (Put on Reserve 9/16/16)** (5). Evaluates the historical record of the Chinese Communists in

power since the establishment of the People's Republic of China in 1949. HIST 465 and HIST 565 are layered courses; students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

HIST 568. Modern Japanese History: Tradition and Change (5). This course explores Japanese history and culture from 1600 to contemporary times. Utilizing lectures, discussions, readings and projects, the focus will be on the modernization process with its concomitant political, social, economic, and intellectual changes. HIST 468 and HIST 568 are layered courses; students may not receive credit for both. Course will be offered on odd numbered years (Winter).

HIST 573. Russia to 1881 (5). The political, social, economic, and cultural development of Russia from ancient times to the assassination of Alexander II. HIST 473 and HIST 573 are layered courses; students may not receive credit for both.

HIST 574. Russia Since 1881 (5). The political, economic, social, and cultural history of Russia and the Soviet Union since 1881. HIST 474 and HIST 574 are layered courses; students may not receive credit for both.

HIST 576. History of Modern East Europe (Put on Reserve 9/16/16) (5). Poland, Czech, Slovak Republics, Austria, Hungary, Romania, Yugoslavia, Bulgaria, Greece, Albania, with special attention to multi-ethnicity, economic underdevelopment and modernization, political dependence, and nationalism. HIST 476 and HIST 576 are layered courses; students may not receive credit for both. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

HIST 578. Russian Far East (5). Russian Far East history from 16th-century Cossack exploration to 21st-century democracy. Topics include the imperial "urge to the sea," the Trans-Siberian Railway, the Soviet gulag system, and Pacific Rim relations. AST 478, HIST 478, and HIST 578 are cross-listed courses; student may not receive credit for more than one. Department reactivated for fall 2016.

HIST 583. Modern China (5). The history of China in the 19th- and 20th-centuries, including the nature of China's response to the West and the Chinese Revolution of the 20th-century. Emphasis on internal social and economic change. HIST 483 and

HIST 583 are layered courses; students may not receive credit for both.

HIST 588. Mexico in the Modern Era (5). Analyzes the modern history of Mexico, from independence to the present day. HIST 488 and HIST 588 are layered courses; students may not receive credit for both.

HIST 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. HIST 490 and HIST 590 are layered courses; students may not receive credit for both. By permission. May be repeated for credit. Grade will either be S or U.

HIST 591. Workshop (1-6). HIST 491 and HIST 591 are layered courses; students may not receive credit for both. Grade will either be S or U.

HIST 595. Graduate Research (1-10). For students doing preliminary or ongoing thesis/project research. May not be included in the course of study for the master's degree. By permission. May be repeated for credit. Grade will either be S or U.

HIST 596. Individual Study (1-6). For students who wish to do directed readings and study in secondary literature on specific topics that are not offered as existing courses. By permission. May be repeated for credit.

HIST 598. Special Topics (1-6). May be repeated for credit.

HIST 599. Seminar (1-5). May be repeated for credit.

HIST 696. Individual Study (1-6). May be repeated if subject is different.

HIST 698. Special Topics (1-6). May be repeated if subject is different.

HIST 699. Seminar (1-6). May be repeated if subject is different.

HIST 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U.

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 540. Psycho-social Perspectives in Health and Physical Education (3). The social and psychological factors

which affect behavior and performance in health and physical education.

HPE 543. Sex, Drugs and Going Pro: Issues in Professional Sports (3). This course will provide students with an in-depth exploration of contemporary problems and scandals in professional sports so they can contemplate, assess and suggest methods for cultural change at the professional sports level. HPE 443 and HPE 543 are layered courses; students may not receive credit for both.

HPE 544. The Promise and Pitfalls in Interscholastic Athletic Programs (3). This course will provide students with an in-depth exploration of contemporary issues surrounding interscholastic athletics at the local, state and national levels. The student will contemplate and assess the critical issues in secondary school athletics and appraise possible solutions for specific case studies. HPE 444 and HPE 544 are layered courses; students may not receive credit for both.

HPE 545. The Good, Bad and Ugly of Intercollegiate Sports (3). This course will provide students with an in-depth exploration of current positive and negative topics surrounding intercollegiate athletics. The students will contemplate and assess critical issues through historical and contemporary case studies. HPE 445 and HPE 545 are layered courses; students may not receive credit for both.

HPE 546. Advanced Administration of Athletics (3). Principles and practices of athletic administration: budgeting, resource control, personnel development, alumni relations. By permission.

HPE 547. Healthy Living for Athletes, Coaches, and Administrators (3). Provides insights and ameliorations for the effects of the stressful lifestyle of athletes, coaches, and athletic department administrators. Students will develop a handbook of information, stress identifier exercises, and lifestyle adjustment techniques. May be repeated up to six credits.

HPE 557. Research Methods and Design in Health and Physical Education (4). Introduction to the process of planning and understanding research.

HPE 558. Instructional Models in Physical Education (3). Investigation of current teaching methodologies and trends in instructional design in physical education. Formerly PE 561, students may not receive credit for both.

HPE 560. Statistical Applications in Health and Physical Education (4). Application of statistics to research in health and physical education. Analysis of data sets drawn from research in these disciplines. Formerly HHPR 556, students may not receive credit for both.

HPE 561. Tactical Applications to Movement Development and Sport (3). This course examines how the tactical games approach can be applied at elementary and secondary levels in a variety of developmentally appropriate sports and activities. Prerequisite: accepted in HPE Masters Program (HAPEG).

HPE 562. Pedagogical Design and Analysis in Physical Education (3). The emphasis of the course is to identify, develop and implement a variety of instructional strategies in physical education and other activity settings. Additional emphasis will be placed on planning age appropriate instructional sessions. Prerequisites: accepted in HPE Masters Program and HPE 561.

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.

HPE 572. Skills-based Health Education (3). The course will provide an opportunity to learn about the foundational components of school-based health education from a skills-based approach intended to help improve the health and well-being of learners in the K-12 educational system.

HPE 573. Pedagogical Strategies in School Health Education (3). This course is designed to provide health and physical education (HPE) graduate students the knowledge and pedagogical content knowledge and skills necessary to teach comprehensive school health education in the K-12 setting. Prerequisite: HPE 572.

HPE 574. Public Relations and Marketing in Athletics (3). This course offers students a complete view of the expansive field of sport, providing an understanding of the foundations of sport marketing, public relations, and how to enhance the sport experience. Department permission. Prerequisite: open to students in the graduate health and physical education programs.

HPE 577. Curriculum and Assessment in Health and Physical Education (3).

Provide an opportunity to learn about the foundational curriculum design components of physical education and school health education that is intended to ultimately impact participants taking health and PE classes in the K-12 educational system.

HPE 578. Program Promotion and Grant Writing in Health and Physical Education (3). The course will assist students in developing a comprehensive plan for promoting health and physical education programs as well as provide the knowledge and skills to fund those programs through grants and fundraisers.

HPE 579. Principles and Techniques of Supervision in Health and Physical Education (3). Introduction to the history of supervision, a breakdown of the process, and opportunities to practice supervision conferencing.

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.

HPE 581. Technological Applications in Health and Physical Education (3). Introduction to technological applications in HHPN and strategies for delivery of CWU online MS degree program in HHPN. Prerequisite: admission to HHPN graduate program.

HPE 583. Leadership and Decision Making in Interscholastic Sports (3). Students will examine the characteristics and skills of effective leaders and investigate the various roles and responsibilities of the athletic director. Students will define and apply knowledge of management, supervision, and decision-making skills and strategies used by effective leaders in athletics. Prerequisite: admission to the master of science in PESPH.

HPE 584. Mentoring of Coaches and Athletes (3). The mentoring course provides students with the knowledge, skills, and personal behaviors, and relationships that affect the athletic director's ability to mentor coaches and student-athletes. Students will review the concepts of leadership and apply them to mentoring theory. Mentoring theory and leadership skills will be applied to mentoring activities within and outside of the class in efforts to create a mentoring program. Prerequisite: open to students in the physical education, school, and public health program.

HPE 585. Event, Facilities, and Scheduling Management of Sport (3). Provides students with the knowledge

and understanding of the protocols and process of scheduling and managing events and facilities. Students will practice scheduling and management processes. Organizational, communication, and technological skills will be emphasized and refined. Prerequisite: admitted to the Athletic Administration Program.

HPE 586. Athletic Budgeting, Finance, and Fundraising (3). Budgeting and fund raising course provides students with the exploration and applications of budgeting and fundraising philosophies, considerations, strategies, and timelines for athletic programs. Students will examine various

development and planning processes for athletic budgeting and fundraising, including the consideration of equity principles. Prerequisite: open to students in the physical education, school, and public health program.

HPE 587. Governing Organizations in Sports and Athletics (2). This course provides students with the knowledge and understanding of the agencies that regulate, support, and review sport and athletic programs, such as the NCAA, NFHS, WIAA, and other athletic-related associations. Prerequisite: Admission to the MS in PESPH.

HPE 595. Graduate Research (1-6). Development and investigation of an approved laboratory or field research problem. May be repeated. Maximum of 6 credits may be included in course of study for the master's degree. May be repeated for credit. Prerequisite: permission of major advisor.

HPE 596. Individual Study (1-6). May be repeated if subject is different.

HPE 598. Special Topics (1-5).

HPE 599. Seminar (1-5). May be repeated for credit.

HPE 696. Individual Study (1-6). May be repeated if subject is different.

HPE 698. Special Topics (1-6). May be repeated if subject is different.

HPE 699. Seminar (1-6). May be repeated if subject is different.

HPE 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, and/or examination. By permission. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Integrated Human Physiology Courses

IHP 551. Metabolism and Skeletal Muscle (5). Application of

physiological principles to regulation, control, and adaptation of skeletal muscle and cellular metabolic processes to acute and chronic internal and external stimuli including physical activity, metabolic and musculoskeletal diseases, obesity, nutritional strategies, and aging. Formerly EXSC 551, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

IHP 552. Cardiopulmonary Physiology (5). Responses and adaptations of cardiovascular and pulmonary systems and supporting organ systems (neural, endocrine) to acute and chronic internal and external stimuli. Stimuli include physical activity, cardiopulmonary diseases, obesity, and aging. Formerly EXSC 552, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

IHP 553. Laboratory Techniques in Stress Physiology (5). Techniques for the assessment of human physiological characteristics during rest and exercise stress. Two hours lecture and two hours lab per week. Formerly EXSC 553, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552.

IHP 555. Environmental Stress and Human Performance (3). Influence of a variety of environmental factors on human performance. Adaptations to environmental stressors through constant exposure. Formerly EXSC 555, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552.

IHP 556. Ergogenic Aids and Human Performance (3). Use of physical, physiological, pharmacological, and psychological aids to improve human performance. Formerly EXSC 556, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552.

IHP 557. Research Design (4). Study concepts of scientific research process including selection of a research topic, literature review, methods and design, hypothesis testing, and research proposals. Formerly EXSC 557, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

IHP 559. Applied Kinesiology (3). Study of human movement from a multidisciplinary perspective. Disciplines may include anthropology, sociology, psychology, economics,

medicine, exercise physiology, biomechanics, nutrition, motor learning, motor development, and physical education. Formerly EXSC 559, students may not receive credit for both. Prerequisites: IHP 551 and IHP 552 or permission of the instructor.

IHP 560. Inferential Statistics (4). Inferential Statistics is an intermediate course that focuses on the application of appropriate statistical procedures used in the fields of human physiology and nutrition. The course covers quantitative inferential statistics methods in theory and practice. Formerly EXSC 560, students may not receive credit for both. Prerequisite: admission to the NEHS MS, IHP or Nutrition graduate program or permission of the instructor.

IHP 562. Clinical Exercise Physiology (Put on reserve 9/16/18) (3). This course introduces students to exercise principles and applications as they relate to individuals with chronic diseases and disabilities. Formerly EXSC 562, students may not receive credit for both. (Put on reserve 9/16/18, will go inactive 8/24/21) Prerequisites: IHP 551 or IHP 552.

IHP 564. Gross Human Anatomy: Cadaver Dissection (1). Gross anatomy dissection of cadaver. One lab session weekly. Can be repeated for up to two credits during the same quarter. Formerly EXSC 564, students may not receive credit for both.

IHP 575. Musculoskeletal Biomechanics (3). Principles of statics and dynamics in biomechanical modeling theory. Application of principles to understanding influence of muscle mechanics and joint kinetics in healthy and clinical populations. Critical review of the biomechanics literature. Formerly EXSC 575, students may not receive credit for both. Prerequisite: EXSC 370 or equivalent.

IHP 590. Cooperative Education (1-6). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. Grade will either be S or U. Formerly EXSC 590, students may not receive credit for both.

IHP 595. Graduate Research (1-6). Development and investigation of an approved laboratory or field research problem. Maximum of 6 credits may be included in course of study for the master's degree. Formerly EXSC 595,

students may not receive credit for both.

IHP 596. Individual Study (1-6). By permission. May be repeated for credit. Formerly EXSC 596, students may not receive credit for both.

IHP 598. Special Topics (1-5). May be repeated for credit. Formerly EXSC 598, students may not receive credit for both.

IHP 599. Seminar (1-5). May be repeated for credit. Formerly EXSC 599, students may not receive credit for both.

IHP 696. Individual Study (1-6). May be repeated if subject is different.

IHP 698. Special Topics (1-6). May be repeated if subject is different.

IHP 699. Seminar (1-6). May be repeated if subject is different.

IHP 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Formerly EXSC 700, students may not receive credit for both. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Individual Studies Courses

IS 590. Cooperative Education (1-8). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty and coordination. By permission. May be repeated for credit. Grade will either be S or U.

IS 596. Individual Study (1-6). Prerequisite: permission of the dean for Graduate Studies and Research.

IS 598. Special Topics (1-6). May be repeated if subject is different.

IS 599. Seminar (1-5). May be repeated if subject is different.

IS 696. Individual Study (1-6). May be repeated if subject is different.

IS 698. Special Topics (1-6). May be repeated if subject is different.

IS 699. Seminar (1-6). May be repeated if subject is different.

IS 700. Master's Thesis/Examination (1-6). Designated to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to six credits. Grade will be either S or U. Prerequisite: permission of chair of the student's graduate faculty supervisory committee.

Information Technology Courses

IT 590. Cooperative Education (1-8).

An individualized contracted field experience with IT and ADMG organizations, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. May be repeated up to 8 credits. Grade will either be S or U. Prerequisite: by permission of instructor.

IT 591. Workshop (1-6). No more than two workshops for a combined maximum of eight credits can be applied toward a master's degree. May be repeated for credit. Grade will either be S or U.

IT 592. Practicum (1-6). Prerequisite: by permission of instructor.

IT 596. Individual Study (1-6).

IT 598. Special Topics (1-6). May be repeated up to 12 credits under a different subtitle. Prerequisite: by permission of instructor.

IT 599. Seminar (1-5). May be repeated if subject is different.

IT 632. Sustainable IT (4). Explores ways that green IT can help an organization reduce its carbon footprint, utilize environmentally friendly materials, and accomplish effective reuse/recycling. How to use IT in a way that maximizes positive benefits and minimizes negative impacts. Co- or prerequisite: ADMG 501.

IT 642. Strategic Management for IT (4). Provides a practical approach to IT Management practices and issues. Looks at IT components, includes including hardware, software, networks and data. Co- or prerequisite: ADMG 501.

IT 647. Cybersecurity Fundamentals (4). This course will provide students with a sound foundation in cybersecurity concepts. Students will examine scenarios that allow them to identify vulnerabilities, risks, and remediation actions as it relates to the management of cybersecurity. Prerequisite: ADMG 501.

IT 657. Strategic IT Security (4). Provides a comprehensive view of information security policies and frameworks form the raw organizational mechanics of building to the psychology of implementation. Presents an effective balance between technical knowledge and soft skills. Co- or prerequisite: ADMG 501.

IT 667. Cybersecurity Risk Management (4). This course focuses on the management of cybersecurity

risks to an organization's information assets. Plans will be developed to preserve the business in the face of major security disruptions. Prerequisite: IT 647.

IT 677. Operations and Physical Security (4). This course addresses operational and physical cybersecurity issues. Key topics will include faculty security, resource protection, and management of cybersecurity incidents. Prerequisite: IT 647.

IT 682. Enterprise Analytics (4). This course covers the application of data-oriented analysis techniques for business intelligence and organizational decision-making. Students will examine a range of tools to enhance the managerial decision making process such as pivot tables, descriptive statistics, statistical process control for business process improvement, and data models to predict future trends. Co- or prerequisites: ADMG 501 and ADMG 545.

IT 684. Approaches to Data Mining for IT Managers (4). This course surveys a variety of data mining techniques used in the information technology field. Prerequisites: ADMG 501 and ADMG 545.

IT 686. Approaches to Data Analytics for IT Managers (4). This course surveys a variety of techniques to analyze structured, and unstructured data. Prerequisites: ADMG 501 and ADMG 545.

IT 688. Reporting Data and Analytics (4). This course surveys the development and presentation of data reports using applied IT programs. Prerequisites: ADMG 501 and ADMG 545.

IT 689. Capstone Written Project (4). Serves as a means to distill the recurring themes and issues presented throughout the graduate program and creates a product that will contribute to the solution of real-world problems and concerns in the area of Information Technology. Co- or prerequisites: ADMG 501 and ADMG 525 .

IT 696. Individual Study (1-6). May be repeated if subject is different.

IT 698. Special Topics (1-6). May be repeated if subject is different.

IT 699. Seminar (1-6). May be repeated if subject is different.

IT 700. Master's Thesis, Project Study and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair

of student's graduate faculty supervisory committee.

Law and Justice Courses

LAJ 511. Theories of Crime, Deviance, and Justice (5). Course will examine the leading scientific explanations of crime causation as well as the social, political, and legal responses to crime. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

LAJ 515. Personnel Issues in Criminal Justice (Put on reserve 9/16/17) (5). Addresses issues such as recruitment, retention, supervision, evaluation, workplace human rights, and disciplinary issues. (Put on reserve 9/16/17. Will go inactive 8/24/2020.) Prerequisite: admission to the MS in Law and Justice Program.

LAJ 516. Organizational Leadership (5). This course will provide students an opportunity to learn about transformational, transactional, and servant leadership styles. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 520. Constitutional Issues in Criminal Justice (5). This course examines constitutional issues emerging within the context of the criminal justice system, law enforcement, prosecution, defense, judiciary, corrections, and community supervision. United States Supreme Court decisions reversing and modifying previous case law and effecting criminal justice practices and policy will be presented and discussed. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 524. Policy Analysis (5). This course will provide students an opportunity to learn about institutions, bureaucracy and policy analysis and implementation. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice.

LAJ 535. Research Methods (5). The emphasis of this course is on developing students' ability to perform research designs, data collection, data processing and analysis in the field of criminal justice. Various research techniques will be covered, the analysis of both quantitative and qualitative, data, writing research reports and proposals, and the use of computers in

research. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

LAJ 536. Statistics and Data Analysis

(5). Course will cover quantitative data analysis with an emphasis on univariate, bivariate, and multivariate statistical techniques typically used in criminal justice and criminological research. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice.

LAJ 540. Law and Social Control (5).

This course examines the nature of social control as it is vested in the objectives, procedures, and authority of law and the social-legal implications of social control and the limits of criminal law as a method of social control. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 541. Race, Class, Gender, and Justice (5).

This course will provide students an opportunity to learn about race, class, gender, and how these relate to the dispensation of justice. Formerly LAJ 525, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 542. Criminal Justice History (5).

This course will focus on crime and disorder in the United States from the colonial period through the 20th century with an emphasis on social forces that influenced the development of the criminal law and its institutions of social control. Formerly LAJ 530, students may not receive credit for both. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 543. Theory and Evidence on Crime Prevention (5).

Course will review the contemporary research in applied crime prevention techniques used in criminology and criminal justice. Course will not have an established scheduling pattern.

Prerequisites: admission to the master of science program in law and justice or instructor permission.

LAJ 544. Theory and Evidence in Policing (5).

Course will focus on contemporary research on the role and function of the police, police effectiveness, and modern police

strategies and tactics. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 545. Ethical Studies (5).

Course will review ethical questions and principles in the area of criminal justice and criminology. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 546. Theory and Evidence in

Corrections (5). Course will review the theoretical frameworks that explain modern corrections and review empirical research on contemporary best practices in corrections. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 547. Theory and Evidence in

Courts and Law (5). Course will review research on court actors, court administration, and legal issues, with an emphasis on how these elements impact the court function.

Prerequisites: admission to the master of science program in law and justice and completion of LAJ 535 and LAJ 536 or instructor permission. Course will not have an established scheduling pattern.

LAJ 548. Decision Making in Law and

Justice (5). Review of literature on correlates of decision making with a focus on crime reporting, use of force, arrest, bail, charging, sentencing, and release. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 549. Juvenile Justice (5).

Juveniles present many unique challenges for the contemporary justice system. This class will provide a baseline of information to students to allow them to work with these populations and be aware of their unique attributes. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 550. Advanced Research

Methodology (5). This course will explore advanced research techniques often utilized in criminal justice and criminological research. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice and completion of LAJ 535 and LAJ 536 or instructor permission.

LAJ 551. Legal Liability for

Professionals (5). The course will provide an overview of liability issues facing criminal justice personnel. Students will also analyze strategies that will enable them to reduce risk of exposure to civil and criminal liability. Formerly LAJ 575, students may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 552. Criminal Justice

Controversies (5). Course focuses on divisive issues and policies which confront law and justice professionals. Particular emphasis on political, social, and ethical conflicts that emerge between opposing policy positions. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice or instructor permission.

LAJ 590. Cooperative Education (1-5).

This course will provide the students an opportunity to briefly work in an area of their choosing while having a qualified professional mentor their work. Permission of instructor. May be repeated up to 12 credits. Grade will be S or U. Course will not have an established scheduling pattern.

Prerequisite: admission to the master of science program in law and justice or instructor permission.

LAJ 596. Individual Study (1-6).

This course will provide the students an opportunity to conduct research in an area of their choosing while having a qualified professional mentor their work. Permission by instructor. May be repeated for credit. Course will not have an established scheduling pattern. Prerequisites: admission to the master of science program in law and justice or instructor permission.

LAJ 598. Special Topics (1-5).

May be repeated for credit under different titles. Prerequisite: admissions to the MS in Law and Justice Program.

LAJ 599. Seminar (1-5).

May be repeated if subject is different.

LAJ 689. Master's Capstone (5).

An end-of-program course, which includes a basic review of courses, an oral/written examination and program assessment. The student must have completion of core courses and be within eight credits of graduation or permission from the Chair in order to register for this course. Grade will either be S or U. Prerequisite: admission to the master of science program in law and justice.

LAJ 690. Internship (1-6). Permission of chair. May be repeated for credit. Grade will either be S or U.

LAJ 696. Individual Study (1-6). May be repeated if subject is different.

LAJ 698. Special Topics (1-6). May be repeated if subject is different.

LAJ 699. Seminar (1-6). May be repeated if subject is different.

LAJ 700. Master's Thesis, Project, Study, or Portfolio (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated for credit. Permission by instructor. Grade will either be S or U. Course will not have an established scheduling pattern. Prerequisite: admission to the master of science program in law and justice or instructor permission.

Library Science Courses

LIS 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

LIS 596. Individual Study (1-6). May be repeated if subject is different.

LIS 598. Special Topics (1-6). May be repeated if subject is different.

LIS 599. Seminar (1-5). May be repeated if subject is different.

LIS 696. Individual Study (1-6). May be repeated if subject is different.

LIS 698. Special Topics (1-6). May be repeated if subject is different.

LIS 699. Seminar (1-6). May be repeated if subject is different.

Mathematics Courses

MATH 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

MATH 591. Workshop (1-6). No more than two workshops for a combined maximum of eight credits can be applied toward a master's program.

MATH 595. Graduate Research (1-10). May be repeated for credit. A maximum of five credits may count toward degree requirements. Grade will either be S or U. Prerequisite: permission of advisor.

MATH 596. Individual Study (1-6). By permission.

MATH 598. Special Topics (1-6). May be repeated for credit under different subtitle.

MATH 599. Seminar (1-5). By permission. May be repeated for credit.

MATH 696. Individual Study (1-6). May be repeated if subject is different.

MATH 698. Special Topics (1-6). May be repeated if subject is different.

MATH 699. Seminar (1-6). May be repeated if subject is different.

Management Courses

MGT 525. Strategic Management/Business Simulation (Put on reserve 9/16/18) (5). Developing accountants as business advisers. Performance measurement, financing, and overall corporate strategy. Business simulation involving professionals. (Put on reserve 9/16/18, will go inactive 8/24/21) Prerequisite: admission to a College of Business Graduate Program.

MGT 589. Business Ethics (5). Examination of organizational and professional ethics through a behavioral lens with emphasis on making ethical decisions in these contexts. Prerequisite: admission to a College of Business Graduate Program.

MGT 596. Individual Study (1-6). May be repeated if subject is different.

MGT 598. Special Topics (1-6). May be repeated if subject is different.

MGT 599. Seminar (1-5). May be repeated if subject is different.

MGT 696. Individual Study (1-6). May be repeated if subject is different.

MGT 698. Special Topics (1-6). May be repeated if subject is different.

MGT 699. Seminar (1-6). May be repeated if subject is different.

Management Information System Courses

MIS 520. Enterprise System Integration and Application (5). The application of enterprise information systems in the management of organizations. Explores the integration and impact of business processes and systems. Uses an industry enterprise system to simulate practice and support analysis. Course will not have an established scheduling pattern. Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative undergraduate grade point average.

MIS 546. Systems Analysis and Design in Business (5). The analysis and improvement of business processes and subsequent planning, configuration and implementation of supporting enterprise system modules. Incorporates systems development

tools, modeling, process redesign; applications configuration. MIS 446 and MIS 546 are layered courses, student cannot receive credit for both. Course will not have an established scheduling pattern. Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative undergraduate grade point average and MIS 520 or department chair approval.

MIS 560. Applied Business Analytics (5). Application of business intelligence tools and techniques in an enterprise system environment to retrieve and analyze data and implement business decisions. Employs leading industry based enterprise management system, business intelligence tools and simulations. MIS 460 and MIS 560 are layered courses, student may not receive credit for both. Course will not have an established scheduling pattern. Prerequisite: a baccalaureate degree with a minimum 2.75 cumulative collegiate undergraduate grade point average and MIS 520 or department chair approval.

Music Courses

MUS 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

MUS 510. Vocal Jazz Choir (1). An ensemble specializing in performance of repertoire from jazz choir tradition established in the Northwest and beyond. Limited to SATB singers and rhythm section instruments. May be repeated for up to six credits. For graduate students. Must attend all scheduled rehearsals and performances. By permission. May be repeated for credit.

MUS 513. Flute Choir (1). Two hours of rehearsal per week plus all scheduled rehearsals and performances. For graduate students. May be repeated for credit. Prerequisites: previous experience in flute performance.

MUS 514. Brass Choir (1). For graduate students. See MUS 214 for description. By permission. May be repeated for credit.

MUS 515. Chamber Orchestra (1). Two hours rehearsal per week plus all scheduled rehearsals and performances. By audition. For graduate students. May be repeated for credit. Course will be offered every year (Winter and Spring).

MUS 517. Chamber Music Ensemble

(1). One hour coaching plus two hours rehearsal per week plus all scheduled rehearsals and performances. Instruction available in performance areas A-E, G-I, L. By audition. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).

MUS 520. Methods of Teaching Theory (3).

Methods of teaching for students preparing to teach core undergraduate music theory classes, including music fundamentals, counterpoint, harmony and voice leading, sight-singing, aural skills, dictation, and rudimentary analysis. Course will be offered on an odd numbered years (Fall). 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. May be repeated for credit. Prerequisite: MUS 422C.

MUS 523. Advanced Composition (3).

Selected topics in composition. May be repeated for credit. Prerequisite: MUS 420.

MUS 524. Applied Pedagogy in Music (3).

Teaching methods and materials for music instruction.

MUS 529. Percussion Ensemble (1).

Two hours rehearsal per week plus all scheduled rehearsals and performances. For graduate students. By audition. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).

MUS 532. Big Band (1).

Must attend all scheduled rehearsals and performances. For graduate students. See MUS 232 for description. By permission. May be repeated for credit.

MUS 536. Diction for Singers 1 (2).

A course designed to teach the singer and choral director the International Phonetic Alphabet symbols, the correct execution of Italian, Latin, and English sounds, and the basic pronunciation rules of the three languages. At the graduate level students will be focusing on finer details within each language and preparing more advanced texts.

MUS 537. Diction for Singers 2 (Advanced IPA and German) (2).

A course designed to teach the singer and choral director the International Phonetic Alphabet symbols as specifically applied to the German

language, the correct execution of German sounds, and the basic pronunciation rules of German. Prerequisite: MUS 536.

MUS 538. Diction for Singers 3 (Advanced IPA and French) (2).

A course designed to teach the singer and choral director the International Phonetic Alphabet symbols as specifically applied to the French language, the correct execution of French sounds and the basic pronunciation rules of French. At the graduate level students will be focusing on finer details of French, and preparing more advanced texts. Prerequisite: MUS 536.

MUS 540. Advanced Choral Interpretation and Technique (3).

For choral directors of all levels in the public schools and churches. New materials, voice production, intonation, interpretation, conducting techniques, diction. Course will not have an established scheduling pattern.

MUS 541. Advanced Conducting (3).

Emphasis upon the conducting of advanced literature in the major performance media. May be repeated for credit. Prerequisite: MUS 342.

MUS 547. Electronic Music Composition (3).

Studies in electronic music with emphasis on compositional technique. MUS 347 and MUS 547 are layered courses; students may not receive credit for both.

MUS 549. Jazz Improvisation for the Jazz Impaired Teacher (Put on Reserve 9/16/16) (2).

The course is designed to be an online class that addresses the needs of a teacher or current upper division student who has had little or no experience in teaching jazz improvisation. The basic skills addressed in the class will be jazz piano, composing, skills needed to create a jazz solo, and learning the jazz language through transcribing a recorded jazz solo. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Prerequisite: undergraduate degree in music or by permission.

MUS 554C. Advance Technique Class: Strings (1-3).

For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.

MUS 554D. Advance Technique Class: Woodwinds (1-3).

For advanced study on secondary instruments. May be repeated up to 6 credits. Course will not have an established scheduling pattern. Prerequisites: MUS 254C or MUS

254D or MUS 254E or MUS 254G, or the equivalent.

MUS 554E. Advance Technique Class: Brass (1-3).

For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.

MUS 554G. Advance Technique Class: Percussion (1-3).

For advanced study on secondary instruments. May be repeated up to 6 credits. Prerequisites: MUS 254C or MUS 254D or MUS 254E or MUS 254G, or the equivalent.

MUS 554H. Advanced Technique Class: Guitar (1-3).

For advanced study on secondary instruments. May be repeated up to 6 credits.

MUS 558. Survey of Solo Vocal Literature (3).

All periods, performance or listening. Background, stylistic traits, and performance concepts of the Art Song. By permission.

MUS 560. Instructional Development in Music Education (3).

Curriculum design, learning styles, rehearsal and classroom management, and current trends impacting music education.

MUS 561. Opera Workshop (1-2).

A class leading to the performance of scenes or single acts from opera. By audition. May be repeated for credit. Course will be offered on even numbered years (Winter and Spring).

MUS 562. Opera Production (1-3).

A class leading to performance of a complete opera. MUS 462 and MUS 562 are layered courses; students may not receive credit for both. May be repeated for credit.

MUS 564. Major Applied Area (Individual Instruction) (2 or 4).

Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in

performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564A. Major Applied Area: Piano (2 or 4).

Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

MUS 564B. Major Applied Area: Voice (2 or 4).

Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.

- MUS 564C. Major Applied Area:**
Strings (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.
- MUS 564D. Major Applied Area:**
Woodwinds (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.
- MUS 564E. Major Applied Area:**
Brass (2 or 4). One half-hour lesson per week for 2 credits; one hour lesson per week for 4 credits; 1 credit if offered one term only during summer session. All students enrolled in lessons will register for the weekly recital hour. Instruction available in performance areas A-I. Open to non-Performance and non-Performance Pedagogy majors. By permission of instructor. May be repeated for credit.
- MUS 564G. Major Applied Area:**
Percussion (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.
- MUS 564H. Major Applied Area:**
Guitar (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to non-performance and non-performance pedagogy majors with permission of instructor. May be repeated for credit.
- MUS 566. Wind Ensemble** (1-2). Open to students with demonstrated proficiency on band instruments by audition or permission of the instructor. Five hours rehearsal per week plus all scheduled rehearsals and performances. For graduate students. Two credits normally offered during academic year and one credit if offered one term only during summer session. For graduate students. May be repeated for credit.
- MUS 567. University Choir** (1-2). See MUS 267 for description. Two credits normally offered during academic year and one credit if offered one term only during summer session. For graduate students. May be repeated for credit.
- MUS 568. Chamber Choir** (2). See MUS 268 for complete description. May be repeated for credit.
- MUS 569. Symphonic Winds** (2). Winter and spring quarters only. Five hours of rehearsal per week plus scheduled rehearsals and performances. During winter and spring quarters the symphonic band will present several formal concert programs. Membership is by audition. May be repeated for credit. Course will be offered on an odd numbered years (Winter, Spring).
- MUS 571. History of Orchestra Music** (3). Forms and styles from the 17th to 20th centuries.
- MUS 572. Music in the 20th Century** (3). Forms and styles relevant to 20th-century music.
- MUS 573. History of Opera** (3).
- MUS 574. Jazz Styles and History** (3). A survey of jazz history focused on the evolution of jazz styles. Course activities include analysis, transcription, guided listening, imitative composition, research, and essay writing.
- MUS 575. History of Chamber Music** (3). Forms and styles from the late 16th-century to the present.
- MUS 576. History of Choral Music** (3). Forms and styles from medieval to modern.
- MUS 577. Orchestra** (1-2). Open to graduate students proficient on orchestral instruments by audition. Five hours rehearsal per week plus all scheduled rehearsals/performances. Two credits normally offered during academic year and one credit offered during summer session. May be repeated for credit. Course will be offered every year (Fall, Winter, Spring).
- MUS 579. Aesthetics of Music** (3). Examination of various perspectives in the meaning and value of music.
- MUS 587. Marching and Concert Band** (1-2). Fall quarter only. See MUS 287 for description. For graduate students. May be repeated for credit.
- MUS 588. Symphonic Band** (2). See MUS 288 for description. For graduate students. May be repeated for credit.
- MUS 592. Accompanying Practicum** (1-3). By assignment of instructor. Minimum three hours rehearsal weekly per credit plus performances. For graduate students. May be repeated for credit.
- MUS 595. Graduate Research** (2). For students doing preliminary or continuing thesis/project research. May be repeated once for credit. May not be included in the course of study or counted toward the master's degree. By permission. Grade will either be S or U.
- MUS 596. Individual Study** (1-6). May be repeated for credit.
- MUS 598. Special Topics** (1-6). May be repeated for credit under a different topic.
- MUS 599. Seminar** (1-5). May be repeated for credit.
- MUS 600. Graduate Cognate Project** (1). Students in approved graduate cognates in music must register for this course in the quarter they complete an approved culminating project. See specific cognate descriptions for details. Grade will either be S or U.
- MUS 610. Graduate Seminar in Music: Composer** (1-3). Study of a particular composer's life and works. May be repeated up to 6 credits. Prerequisite: graduate standing.
- MUS 611. Graduate Seminar in Music: Music Education** (1-3). Seminar in selected topics in music education. May be repeated up to 12 credits. Prerequisite: graduate standing.
- MUS 612. Graduate Seminar in Music: Music History/Literature** (1-3). Seminar in selected topics in music history/literature. May be repeated up to 6 credits. Prerequisite: graduate standing.
- MUS 613. Graduate Seminar in Music: Music Theory/Composition** (1-3). Seminar in selected topics in music theory and/or composition. May be repeated up to 6 credits. Prerequisite: graduate standing.
- MUS 614. Graduate Seminar in Music: Performance** (1-3). Seminar in selected topics in music performance. May be repeated up to 6 credits. Prerequisite: graduate standing.
- MUS 615. Graduate Seminar in Music: Conducting** (1-3). Seminar in selected topics in conducting. May be repeated up to 12 credits. Course will not have an established scheduling pattern. Prerequisite: graduate standing.
- MUS 616. Graduate Seminar in Music: Pedagogy** (1-3). Seminar in selected topics in music pedagogy. May be repeated up to 12 credits. Course may be repeated in same term. Course will not have an established scheduling pattern. Prerequisite: graduate standing.
- MUS 664. Major Applied Area (Individual Instruction)** (2 or 4). Half-hour lesson per week for 2 credits or an hour lesson per week for 4 credits. Instruction available in performance areas A-H. Open to performance and performance pedagogy majors with permission of instructor. May be repeated for credit.
- MUS 696. Individual Study** (1-6). May be repeated if subject is different.
- MUS 698. Special Topics** (1-6). May be repeated if subject is different.

MUS 699. Seminar (1-6). May be repeated if subject is different.
MUS 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Nutrition Courses

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
NUTR 547. Nutrition Update (3). Recent advances in nutrition research. Advanced study of selected nutrition problems. With permission, may repeat every other year. Prerequisite: NUTR 245.
NUTR 595. Graduate Research (1-10). Development and investigation of an approved laboratory or field research problem. By permission. May be repeated. Maximum of six credits may be included in MS course of study. Grade will either be S or U.
NUTR 596. Individual Study (1-6). May be repeated for credit.
NUTR 598. Special Topics (1-5). May be repeated for credit.
NUTR 599. Seminar (1-5). Discussion of specific topics from readings in biomedical journals, books, and other materials. May be repeated up to 5 credits. No more than 3 credits may be used to meet the 45 credit requirement for an MS degree. Course will be offered every year. Course will not have an established scheduling pattern.

NUTR 696. Individual Study (1-6). May be repeated if subject is different.
NUTR 698. Special Topics (1-6). May be repeated if subject is different.
NUTR 699. Seminar (1-6). May be repeated if subject is different.
NUTR 700. Master's Thesis (1-6). Designed to credit and record supervised study for the master's thesis. By permission. May be repeated for credit. Grade will either be S or U. Prerequisite: permission of chair of the student's graduate committee.

Physical Education Courses

PE 521. Advanced Football Coaching (Put on reserve 9/16/17) (3). (Put on reserve 9/16/17. Will go inactive 8/24/2020.)
PE 523. Advanced Basketball Coaching (Put on reserve 9/16/17) (3). (Put on reserve 9/16/17. Will go inactive 8/24/2020.)
PE 541. Sport and Culture (Put on reserve 9/16/18) (3). The interrelationship of sport with other aspects of the culture. (Put on reserve 9/16/18, will go inactive 8/24/21)
PE 560. Systematic Analysis of Teaching Physical Education (3).
PE 590. Cooperative Education (1-6). An individualized, contracted field experience with business, industry, government, or social service agencies. The contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination. By permission. May be repeated for credit. Grade will either be S or U.
PE 591. Workshop (1-6). May be repeated for credit.
PE 596. Individual Study (1-6). By permission. May be repeated for credit.
PE 598. Special Topics (1-6). May be repeated for credit.
PE 599. Seminar (1-5). May be repeated for credit under different titles.
PE 696. Individual Study (1-6). May be repeated if subject is different.
PE 698. Special Topics (1-6). May be repeated if subject is different.
PE 699. Seminar (1-6). May be repeated if subject is different.

Physics Courses

PHYS 561. Advanced Computational Physics (4). Applications of standard numerical modeling techniques to physics problems involving nonlinear and/or differential equations, including wave propagation, fluid flow, thermodynamics, electrodynamics, and particle physics. PHYS 461 and PHYS 561 are layered courses; students may not receive credit for both.

Prerequisites: MATH 376 and PHYS 361.

PHYS 595. Directed Research (1-5). By permission. May be repeated for credit.
PHYS 596. Individual Study (1-6). May be repeated if subject is different.
PHYS 598. Special Topics (1-6). May be repeated if subject is different.
PHYS 599. Seminar (1-5). May be repeated if subject is different.
PHYS 696. Individual Study (1-6). May be repeated if subject is different.
PHYS 698. Special Topics (1-6). May be repeated if subject is different.
PHYS 699. Seminar (1-6). May be repeated if subject is different.

Political Science Courses

POSC 520. Public Sector Management and Administration (5). The impact of United States constitutional context, executive-legislative relations, intergovernmental and inter-organizational dynamics on executive decision making methods in public sector management at the entity wide, program and resource management levels. Prerequisite: graduate standing.
POSC 521. The Public Executive (5). The function and operation of the executive branch; role and relationship of political executives (both elected and appointed) with the bureaucracy and other branches; leadership and decision-making; the management, supervision, and practice of policy development. Prerequisite: graduate standing.
POSC 522. Comparative Public Administration (5). Comparison of structures, systems and functions of public administration in the U.S. and East Asian countries focused on national development and management. Examined are theories, management principles, functions of bureaucracies and bureaucratic culture. Prerequisite: graduate standing.
POSC 523. Public Finance and Budgeting (Put on reserve 9/16/18) (5). Survey course of public financial management and budgeting. (Put on reserve 9/16/18, will go inactive 8/24/21)
POSC 526. Evaluating Public Policy Effectiveness (5). This course applies scientific methods in the public policy administration arena to evaluate the effectiveness of public programs in local and state government. Students apply at least one qualitative method to a real research questions. Prerequisite: graduate standing.
POSC 527. Nonprofit Organization Administration (Put on reserve 9/16/18) (5). Focuses on the roles

played by nonprofit organizations in meeting the public good. (Put on reserve 9/16/18, will go inactive 8/24/21)

POSC 530. State and Local

Government (Put on reserve 9/16/18) (5). This course examines the administration of local and state government. (Put on reserve 9/16/18, will go inactive 8/24/21)

POSC 535. Government Information

Systems (Put on reserve 9/16/18) (5). An examination of the role and impact of digital information technology in the process of governance with special attention to the associated issues of transparency, productivity and responsibility. (Put on reserve 9/16/18, will go inactive 8/24/21)

POSC 537. Intergovernmental

Relations (Put on reserve 9/16/18) (5). Comparative study of the issues involved in implementing governmental programs across multiple jurisdictions. (Put on reserve 9/16/18, will go inactive 8/24/21)

POSC 550. Administrative Laws and

Regulations (5). Exploration of the impact of constitutional arrangements on the activities of administrative agencies in the implementation of distributive, regulatory and redistributive policies with a focus on rule-making, investigation and adjudication.

POSC 560. Comparative Public Policy

(5). Comparative analysis of policy and policy process in Western and Non-western setting with a special emphasis on the impact of globalization on both policy and process.

POSC 595. Graduate Research (1-10).

For students doing advanced research, writing and study to complete their capstone project required for the master's degree. Maximum of 10 credits may be included on course of study for the master's degree.

Prerequisite: all other courses in the master degree program should be completed prior to POSC 595. Co-requisite: either completed or enrolled in all other required course work.

POSC 596. Individual Study (1-6). May be repeated if subject is different.

POSC 598. Special Topics (1-6).

POSC 599. Seminar (1-5). May be repeated if subject is different.

POSC 689. Capstone Project (Put on

reserve 9/16/18) (5). The capstone project bridges the gap between coursework, research, and professional practice. Criteria is set by a faculty advisor. The final project should address political, social, economic, managerial, or other factors relevant to

an identified topic. (Put on reserve 9/16/18, will go inactive 8/24/21)

Prerequisite: must be taken in the final quarter of the program.

POSC 696. Individual Study (1-6). May be repeated if subject is different.

POSC 698. Special Topics (1-6). May be repeated if subject is different.

POSC 699. Seminar (1-6). May be repeated if subject is different.

POSC 700. Master's Thesis and/or Examination (1-6). Designed to credit and record supervised study for the master's degree thesis, non-thesis project, or examination. By permission only. May be repeated up to 6 credits.

Primate Studies Courses

PRIM 501. Introduction to

Primate Studies (4). Introduces students to the perspectives anthropologists, biologists, and psychologists bring to the study of nonhuman primates.

PRIM 502. Senior Animal Technician

(1). This course covers skills of Grade 1 Animal Technician and Senior Animal Technician with a focus on primates. Students learn International Primatological Society's and US Department of Agriculture's standards for primates' captive management and care. Course will be offered every year (Fall and Spring).

PRIM 503. Current Issues in

Primate Studies (4). This course surveys current literature in primatology, with students identifying major theoretical and methodological topics of interest to primatologists. Prerequisite: PRIM 501.

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.

PRIM 505. Ethnoprimate Studies (4).

Survey of the research conducted on human and nonhuman primate interactions and coevolution. Course will be offered on odd numbered years (Spring).

PRIM 506. Survey of the Primates (4).

Survey of nonhuman primate species, including the ecological, ethological, and evolutionary principles used to understand primates in natural and captive settings. Foundational course for graduate captive care certificate and/or for graduate research focused on primates. Grade will either be S or U. Course will be offered every year (Fall).

PRIM 511. Primate Conservation (4).

A seminar that focuses on conservation issues of particular relevance for non-human primates, including deforestation, bushmeat hunting, and pet trade; conservation strategies, including reintroduction, captive management, and ecotourism. ANTH 411 and PRIM 511 are cross-listed courses; students may not receive credit for both.

PRIM 512. Monkeys of the Neotropics

(4). An overview of Neotropical monkey evolution, ecology, and behavior in wild and captive settings. Focuses on species ranging in Mexico, Central America, and South America. ANTH 412 and PRIM 512 are layered courses; a student may not receive credit for both. Course will be offered on even numbered years (Spring). Prerequisite: PRIM 506 or permission of instructor.

PRIM 513. Research Methods in

Primate Studies (5). Review of methods used in collection and analysis of primatological data, including hypothesis development, delineation of variables, subject sampling, data collection techniques, data analysis, and captive versus field settings for research projects. ANTH 413 and PRIM 513 are layered courses; students may not receive credit for both.

PRIM 514. Research Design in

Primate Studies (3). This course aids in students' development of research proposals and thesis topics through development of dependent and independent variables, preparation of data sheets, data entry, selection of analytical models, and preliminary data analysis. Course will be offered every year (Winter). Prerequisite: PRIM 513.

PRIM 516. Apes (4). An overview of

small- and large-bodied ape evolution, ecology, and behavior in wild and captive settings. ANTH 416 and PRIM 516 are equivalent courses, students may not receive credit for both. Course will be offered on odd numbered years (Spring). Prerequisite: PRIM 506 or permission of instructor.

PRIM 518. Monkeys of Asia and

Africa (4). An overview of Old World monkeys' evolution, ecology, and behavior in wild and captive settings. Focuses on species ranging in Africa and Asia. ANTH 418 and PRIM 518 are layered courses; students may not receive credit for both. Course will be offered on even numbered years (Winter). Prerequisite: PRIM 506.

PRIM 519. Lemurs and Lorises (4). An overview of the evolution, ecology, and

behavior of lemurs and lorises living in wild and captive settings. ANTH 419 and PRIM 519 are layered courses; a student may not receive credit for both. Course will be offered on odd numbered years (Winter). Prerequisite: PRIM 506.

PRIM 550. Captive Care Capstone (1).

A capstone course designed to assess students' mastery of fundamental knowledge of primate captive care through submission of a portfolio of work collected during certificate courses. Includes exit interview with program director. By department permission. Course will be offered every year (Spring and Summer). Prerequisite: admission to the captive primate care certificate.

PRIM 595A. Graduate Research in Primatology (1-10).

Organize or conduct an approved laboratory and/or field research problem. By permission. Maximum of 10 credits may be included on course of study for the master's degree.

PRIM 595C. CHCI Graduate

Research (1-10). Organize or conduct an approved research problem based at Chimpanzee and Human Communication Institute. By permission. Maximum of 10 credits may be included on course of study for the master's degree.

PRIM 596. Individual Study (1-6). May be repeated if subject is different.

PRIM 598. Special Topics (1-5). May be repeated for credit.

PRIM 599. Seminar (1-5). May be repeated if subject is different.

PRIM 696. Individual Study (1-6). May be repeated if subject is different.

PRIM 698. Special Topics (1-6). May be repeated if subject is different.

PRIM 699. Seminar (1-6). May be repeated if subject is different.

PRIM 700. Master's Thesis, Project Study, and/or Examination (1-6).

Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital and/or examination. By permission. May be repeated for credit. Grade will either be S or U.

Prerequisite: permission of chair of student's graduate faculty supervisory committee.

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. May be repeated for credit.

PSY 501. Professional Seminar in School Psychology (3).

An introduction to the activities of school psychologists and the conditions under which they function. Prerequisite: admission to the school psychology program.

PSY 502. Professional Orientation: Mental Health Counseling (3).

Professional identity in mental health counseling. Roles and functions of mental health counselors, professional organizations, credentialing, and accreditation, practices, and standards. May be repeated up to 6 credits. Permission by department. Course will be offered every year (Fall). Prerequisite: admission to graduate program in mental health counseling.

PSY 505. Professional Development in Experimental Psychology (1).

An introduction to graduate school for first-year students with an emphasis on enhancing professional skills, including topics on career paths, written and verbal communication, grant-writing, conference attendance, and professional behavior. By permission. May be repeated up to 3 credits. Grade will either be S or U.

PSY 510. Instructional Strategies in the Behavioral Sciences (3).

This course will provide the preliminary skills necessary to teach diverse undergraduate learners in the behavioral sciences with an emphasis on lesson plan delivery, developing and evaluating course assignments, and utilizing technology in the classroom. Course will be offered every year. Course will not have an established scheduling pattern.

PSY 512. Basic Principles of Behavior Analysis (3).

This course will familiarize with the basic principles of experimental behavior analysis, including respondent and operant conditioning. Complex behavioral phenomenon such as choice motivation, and rule-governed behavior will also be covered. Acceptance into ABA/Exp PSY programs or by permission.

PSY 513. Conservation Psychology (4).

Interaction between thought processes, behavior, and environmental decision-making as they relate to environmental change and sustainability. PSY 413 and PSY 513 are layered courses; students may not receive credit for both.

PSY 515. Behavioral Medicine and Health Psychology (4).

The application of psychology to the understanding of illness and to its

prevention and treatment with special emphasis on current health topics (s.g., stress, HIV/AIDS). PSY 415 and PSY 515 are layered courses; students may not receive credit for both. Prerequisite: PSY 101.

PSY 520. Psychology of Language (4).

Basic principles of language, cognition of language, language development, theories of linguistic structure and brain function as it relates to language processing. PSY 420 and PSY 520 are layered courses; students may not receive credit for both.

PSY 521. Human Neuroanatomy (4).

An introduction to the anatomical organization and basic functional/clinical principles of the major systems of the human brain and their relation to disease and behavior. PSY 421 and PSY 521 are equivalent courses; students may not receive credit for both.

PSY 525. Psychology of Reading (3).

Principles of learning and readiness, perception, psychological, and physiological aspects of reading. PSY 525 and EDLT 525 are cross-listed courses; students may not receive credit for both. Prerequisites: a reading methods course, a basic psychology of learning course, or permission of the instructor.

PSY 530. Positive Psychology (4).

Examination of the theoretical and empirical literature in the field of positive psychology with attention to topics such as happiness, mindfulness, optimism, gratitude, and forgiveness. PSY 430 and PSY 530 are layered courses; students may not receive credit for both.

PSY 538. Substance Abuse and Dependence (5).

Overview of substance abuse from psychological and systems perspectives. Models of addiction and problematic use are explored. Issues including dual diagnosis, family system and cultural considerations, and theories of intervention and treatment are discussed. PSY 438 and PSY 538 are layered courses; students may not receive credit for both.

PSY 541. Advanced Cognitive Psychology (5).

Advanced theories, methods, and research in cognitive psychology and information processing. Prerequisite: PSY 300.

PSY 542. Evolutionary Psychology (4).

Application of the principles of evolution by natural selection to the understanding of human and nonhuman behavior and cognition. PSY 542 and PSY 442 are layered courses; students may not receive credit for both.

PSY 544. Tests and Measurements (4).

Psychological and educational tests, theory, and practice. PSY 444 and PSY 544 are layered courses; students may not receive credit for both. Course will be offered every year (Fall).

PSY 545. Law and Ethics for School Psychologists (3).

This course focuses on the role of the school psychologist in implementing relevant laws and ethics to school systems. In addition students will learn the theories and application of models of legal and ethical decision-making. Course will be offered every year (Spring). Prerequisite: admission to School Psychology EdS Program.

PSY 551. Applied Behavior Analysis (4).

This course will familiarize students with basic behavior analytic principles and how they are applied with a variety of populations in a wide range of professional settings. Acceptance into ABA/School Psych. programs or by permission.

PSY 552. Human Growth and Development, Advanced (4).

Examination of the theoretical and empirical literature in the field of human development through the lifespan, including cognitive, social-emotional, spiritual, moral, and physical development. Permission by department. Course will be offered every year (Summer).

PSY 553. Single-Subject Design (3).

This course will address single-subject research design methodology. The focus will be on measurement, experimental evaluation, and interpretation of single-subject data. Acceptance into ABA/School Psy/Exp PSY program or permission. By permission. Prerequisite: PSY 551.

PSY 554. Behavioral Assessment and Observation (4).

This course will familiarize students with measurement and observational recording techniques used in the context of behavioral interventions. Various behavioral assessment techniques will also be covered (e.g., preference assessments, functional assessments). Acceptance into ABA/School Psych. programs or by permission. Co-requisite: PSY 551.

PSY 555. Design and Statistical Analysis for Applied Research (4).

Design and statistical analysis of experimental and quasi-experimental research with an emphasis on applied settings. By permission only. Prior coursework in inferential statistics highly recommended.

PSY 556. Academic Assessment (5).

Instruction in the use and administration of academic assessment

procedures and instruments for school psychologists. Prerequisite: admission to the School Psychology Program.

PSY 557. Behavioral Interventions (3).

This course will familiarize students with evidence-based interventions based on the principles of behavior analysis. A variety of interventions will be covered as well as methods for working with consumers of applied behavior analysis. Prerequisites: PSY 551 and PSY 554.

PSY 558. Advanced Statistics (5).

Advanced topics in analysis of variance and introduction to multiple regression, factor analysis, and MANOVA. Prerequisite: PSY 555.

PSY 559. Advanced Educational Psychology (4).

Investigation of current research about human learning/behavior in educational settings, including major learning theories, effective school-wide practices to promote academic and social/emotional learning, classroom management, and the impacts of diversity on learning and development.

PSY 560. Theories and Practice of Counseling (4).

Survey of counseling theories with an introduction to counseling skills and practices. Prerequisite: by permission only.

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 563. Behavioral Treatment of Autism (4).

This course will address issues related to the treatment of autism. The course focuses on evidence-based social, communication, and behavioral skill acquisition interventions based on the principles of applied behavior analysis. Acceptance into ABA program or by permission.

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, two-hour laboratory, one-hour independent study per week. PSY 565, BIOL 465 and BIOL 565 are cross-

listed courses; students may not receive credit for both.

PSY 566. Behavioral and Social-Emotional Assessment (4).

Attainment of competencies in the use of behavioral and social-emotional assessment techniques, with a focus on school-age children. Permission of department. Prerequisite: admission to the school psychology program.

PSY 567. Counseling and Assessment: Children and Adolescents (4).

This course will provide students with a foundation for working with children and adolescents. This foundation will include knowledge of childhood psychopathology, and models of assessment and treatment unique to working with children, adolescents and their families. Permission by department. Course will be offered every year (Fall).

Prerequisite: PSY 560 and PSY 593A.

PSY 568. Clinic Orientation Crisis and Rehabilitation Counseling (4).

This course covers the essential elements of clinic orientation-- focusing on clinic paperwork and supervision--, crisis and rehabilitation counseling. Permission of department. Co- or Prerequisite: PSY 560. Admittance to the mental health counseling program.

PSY 571. Counseling for Relationships and Families (4).

Major theoretical approaches to counseling with couples and families. Prerequisites: PSY 560.

PSY 572. International Counseling and Psychology (Put on Reserve 9/16/16) (3).

This course immerses students within a cultural group and examines how psychological and counseling services are provided within that society. The location for the course varies by year. Students will learn about a society's available services, health care provision, relationship/child-rearing traditions, common prejudices, and economic values. PSY 472 and PSY 572 are layered courses; students may not receive credit for both. May be repeated up to six credits. (Put on Reserve 9/16/16. Last taught in 2012. Will go inactive 8/24/19.) Prerequisite: PSY 101.

PSY 573. Career Development and Counseling (4).

Major theories of career development; career assessment; and career intervention, emphasizing individual, ethnic, and cultural differences. By permission.

PSY 574. Multicultural Counseling and Assessment (4).

Multicultural counseling theories and implications for research, training, and practice. Permission by department. Course will

be offered every year (Fall).

Prerequisites: admission to PSY Graduate Programs (Mental Health Counseling or School Psychology), or by instructor approval.

PSY 575. School-Based Interventions

(4). The understanding of the foundations and procedures for implementation of response to intervention and the delivery of academic and social/behavioral interventions within schools and individual classrooms.

PSY 576. Comparative Psychology (4).

Seminar in the study of behavior and cognition across species. PSY 479 and PSY 576 are layered courses; students may not receive credit for both. By permission.

PSY 577. Interviewing Skills for School Psychologists (4).

An introduction to interviewing and assessment for school psychologists, with an emphasis on developing skills for interviewing children, parents and other caregivers, and school personnel. Prerequisite: admission to the school psychology program.

PSY 578. Applied Clinical

Neuroscience (4). Neurological and physiological bases of various psychological disorders, brain injury and repair, and pharmacological treatment of clinical disorders.

Acceptance into a Masters program at CWU or permission of instructor.

PSY 579. Psychopharmacology (4).

Common drugs, psychotherapeutic agents and hallucinogens. Behavioral effects and physiological mechanisms. PSY 476 and PSY 579 are equivalent courses; students may not receive credit for both.

PSY 580. Current Issues in Psychology

(3). May be repeated up to 6 credits.

PSY 581A. Practicum: Academic

Assessment and Intervention (1-3).

Supervised experience administering academic assessment. Grade will either be S or U. May be repeated up to 3 credits. Permission of

department. Course will be offered every year (Winter). Course will not have an established scheduling pattern. Prerequisite: admission to School Psychology Program.

PSY 581B. Practicum:

Psychoeducational Assessment (1-3).

Supervised experience providing psychoeducational assessment services. Services include administering cognitive, academic, social-emotional, adaptive behavior, and other instruments and writing assessment reports and providing feedback. Grade will either be S or U.

May be repeated up to 3

credits. Permission of department. Course will not have an established scheduling pattern.

Prerequisite: admission to School Psychology Program.

PSY 581C. Practicum: School-based Interventions (1-3).

This course will have students provide intervention services in the school setting. Services include meetings with students to provide intervention, collecting progress monitoring data, analyzing intervention data, and communicating student progress to parents and teachers. Grade will either be S or U. May be repeated up to 3 credits.

Permission of department. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: admission to School Psychology program.

PSY 582. Current Issues in Counseling

(4). An exploration of current issues in counseling emphasizing interdisciplinary collaboration and the use of technology in the counseling profession. Permission of department. Prerequisites: PSY 560, PSY 593A and admission to the mental health counseling program.

PSY 583. Consultation (3). Role of the consultant, stages of consultation, application of consultation principles to school and mental health settings.

PSY 584. Behavior Disorders and Psychopathology (4). Major systems of classification for normal and abnormal child/adult behavior. Prior completion of an undergraduate class in abnormal psychology recommended.

PSY 586. Ethics in Research (4). This course will familiarize students with current and emerging ethical issues faced by professional researchers, emphasizing protecting human and non-human participants, data management, mentorship, authorship, and other responsibilities to colleagues and society. Course will not have an established scheduling pattern (Winter).

PSY 587. Ethics in Applied Behavior

Analysis (4). This course will familiarize the student with ethical issues commonly encountered by applied behavior analysts. The ethical guidelines created by the Behavior Analysis Certification Board will be covered. Acceptance into ABA program or permission of instructor.

PSY 588. Advanced Statistics II (4).

Advanced topics in multivariate statistics, including latent variable analyses and the use of statistical software packages in psychological science. Course will not have an

established scheduling pattern.

Prerequisite: PSY 363.

PSY 589. Professional and Ethical

Issues (4). Professional, ethical, and legal issues for mental health and school counselors. Prerequisite: PSY 593A.

PSY 590. Internship (1-10).

Individualized, contracted field experience in an applied, professional setting. The contractual agreement involves a student learning plan, appropriate cooperating employment supervision, and faculty coordination. Student must carry malpractice and liability insurance. May be repeated up to 20 credits. Grade will either be S or U.

PSY 591. Workshop (1-6). May be repeated for credit.

PSY 592A. Practicum in School

Psychology (1-3). Attainment of knowledge and competence in school psychology practice. Grade will either be S or U. May be repeated up to 3 credits. Permission of department. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: admission to the School Psychology Program.

PSY 592B. Practicum in School

Psychology (1-3). Experience providing school psychology services under supervision in the school and psychological services clinic setting. Services include psychoeducational evaluation, consultation, and intervention. Grade will either be S or U. May be repeated up to 3 credits. Permission of department. Course will be offered every year. Course will not have an established scheduling pattern. Prerequisite: PSY 592A.

PSY 593A. Practicum in Counseling I:

Interviewing (1-4). Interviews, role-playing, observation, and analysis of interview behavior. A maximum of 4 credits may be included on the course of study on the master's degree. Grade will either be S or U. Permission by department. Course will be offered every year (Fall, Winter, Spring). Prerequisite: admission to the Mental Health Counseling or School Psychology Program and permission of department chair. To be taken concurrently with PSY 560.

PSY 593B. Practicum in Counseling II:

Assessment (4). Assess client problems, set goals, and plan counseling strategies. Grade will either be S or U. Permission by department. Course will be offered every year (Fall, Winter, Spring). Prerequisites: PSY

560 and 593A and permission of department chair.

PSY 593C. Practicum in Counseling III: Advanced (4). Implementation of counseling strategies with children, adults, couples, or families. Grade will either be S or U. Prerequisites: PSY 593B and permission of department chair.

PSY 593D. Practicum in Counseling IV: Advanced (1-4). Implementation and evaluation of counseling with children, adults, couples, or families. Grade will either be S or U. Prerequisites: PSY 567, PSY 571, and PSY 593C (all may be taken concurrently) and permission of the department chair.

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. Not more than 10 credits of PSY 595 and PSY 595CHCI combined may be included on the master's degree course of study. May be repeated for credit.

PSY 596. Individual Study (1-6). May be repeated for credit.

PSY 598. Special Topics (1-5).

PSY 599. Seminar (1-5). May be repeated for credit.

PSY 651. Advanced Applied Behavior Analysis (3). This course will familiarize students with advanced topics in the field of applied behavior analysis, particularly in the areas of verbal behavior and derived stimulus relations. Prerequisites: PSY 551 and PSY 554.

PSY 681A. Mental Health Internship I: Group (3). Supervised counseling of child or adult groups. Some individual internship hours may also be obtained. Grade will either be S or U. Prerequisites: PSY 561, PSY 593C and permission of department chair.

PSY 681B. Mental Health Counseling Internship II: Advanced (1-12). Full-time internship placement in a mental health agency or psychiatric hospital. Grade will either be S or U. Prerequisites: PSY 584 and PSY 681A.

PSY 682B. School Counseling Internship II: Advanced (Put on Reserve 9/16/16) (1-12). Placement in the public schools (K-12). Grade will either be S or U. (Put on Reserve

9/16/16. Last taught in 2013. Will go inactive 8/24/19.) Prerequisite: PSY 593C and PSY 682A.

PSY 683. School Psychology Internship (5-15). A full-time placement in school district (K-12). May be repeated for credit. Grade will either be S or U. Prerequisite: permission of department chair.

PSY 684. Field Experiences in Applied Experimental Psychology (1-6). Short term, supervised (non-internship) field experiences in professional settings in experimental psychology. May include observational and professional activities directly supervised by faculty and site supervisors. No more than 6 credits may be on the master's degree course of study. May be repeated for credit. Grade will either be S or U. Prerequisite: admission to graduate study in psychology, and permission of the program director.

PSY 689. Capstone in Mental Health Counseling (4). An end-of-program course. Portfolio review and defense, career planning, and student learning evaluation activities. Grade will either be S or U. Permission by department. Course will be offered every year (Spring). Prerequisite: students must be admitted to the clinical mental health counseling program and in their final year.

PSY 696. Individual Study (1-6). May be repeated if subject is different.

PSY 698. Special Topics (1-6). May be repeated if subject is different.

PSY 699. Seminar (1-6). May be repeated if subject is different.

PSY 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the graduate thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

PSY 700A. Master's Thesis in Applied Behavior Analysis (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

PSY 700E. Master's Thesis in Experimental Psychology (1-6). Designed to credit and record supervised study for the graduate thesis in the Masters in Experimental

Psychology program. Permission of student's thesis chair. May be repeated up to 6 credits. Grade will be either S or U.

PSY 700M. Master's Thesis/Project in Mental Health Counseling (1-6). Designed to credit and record supervised study for the graduate thesis or project in the Masters in Mental Health Counseling program. Permission of student's thesis chair. May be repeated up to 6 credits. Grade will be either S or U.

PSY 700S. Master's Thesis/Project in School Psychology (1-6). Designed to credit and record supervised study for the graduate thesis or project in the School Psychology program. Permission of student's thesis chair. May be repeated up to 6 credits.

Public Health Courses

PUBH 501. Foundational Readings and Theories of Public Health (3). This graduate level course provides a foundational overview of the seminal literature and theoretical frameworks of the public health discipline. Course will be offered on even numbered years (Fall).

PUBH 513. Health Disparities in Rural and Frontier Communities (3). Overview of differences in health statuses, resources, and outcomes in rural and frontier communities in the U.S. from a population health perspective. PUBH 413 and PUBH 513 are layered courses. Students may not receive credit for both. Course will be offered every year (Fall, Spring and Summer Quarters).

PUBH 522. Community Health Communication and Promotion (4). Based upon the seven areas of responsibility for entry-level health educators, students will utilize best practices in prevention science to develop methods/materials to educate individuals and groups on topics that they need to remain healthy. PUBH 422 and PUBH 522 are layered courses; students may not receive credit for both. Course will be offered every year (Winter and Spring). Prerequisite: admission into the graduate certificate in Rural and Community Health or MPH Program or instructor permission.

PUBH 524. Biological and Environmental Determinants of Health (3). Biological and environmental factors play a significant role in the health of individuals and communities. This course covers identification, prevention, and response to biological and environmental factors

in public health. Course will be offered every year (Winter, Summer).

PUBH 525. Social and Behavioral Determinants of Health (3). This graduate level course focuses on the identification and application of key determinants of individual and population health that are related to social and behavioral factors such as socioeconomic status, income level, cultural and linguistic factors, health beliefs, lifestyle choices, among others. Course will be offered on even numbered years (Winter).

PUBH 550. Advanced Health Policy and Systems (3). Analysis of the building blocks of U.S. health systems, including leadership/governance, health care financing, workforce, service delivery, drugs/devices and technology, and health information/research. Survey of major health policies/programs at federal/state level impacting population health. Course will be offered on odd numbered years (Fall).

PUBH 571. Program Planning (4). Health program planning including needs assessment and goal setting. PUBH 471 and PUBH 571 are layered courses; students may not receive credit for both. Course will be offered every year (Fall).

PUBH 572. Program Implementation and Evaluation (4). Implementation and evaluation of programs and other strategies designed to improve population health outcomes. PUBH 472 and PUBH 572 are layered courses. Students may not receive credit for both. Course will be offered every year (Winter). Prerequisite: PUBH 571.

PUBH 580. Grant Seeking and Administration in Public Health (3). This course introduces students to grant seeking, writing, and administration in the broad field of public health. PUBH 480 and PUBH 580 are layered courses; students may not receive credit for both. Course will be offered every year (Winter).

PUBH 581. Advanced Epidemiology (5). This course covers descriptive and analytical epidemiological application to social and health sciences with an emphasis on population level health. Course will be offered on even numbered years (Winter).

PUBH 596. Individual Study (1-6). May be repeated if subject is different.

PUBH 598. Special Topics (1-6). May be repeated if subject is different.

PUBH 599. Seminar (1-5). May be repeated if subject is different.

PUBH 620. Study Design for Public Health (3). The first course in a series

on traditional methodologies utilized in public health investigation, with an emphasis on articulating public health research questions, identifying data sets, and justifying study designs for public health inquiry. Course will be offered on odd numbered years (Spring).

PUBH 621. Advanced Quantitative Research Methods for Health (4). Provide students with an understanding of quantitative designs and research methods to answer population health questions. Applied statistical skills will be emphasized, including the critical appraisal and use of quantitative data and evidence. Course will be offered on even numbered years (Winter). Co- or prerequisite: PUBH 620.

PUBH 622. Qualitative Research Methods for Health (4). This course provides graduate level training in techniques for designing, conducting, and analyzing qualitative research studies relevant to public health and other related health sciences. Includes opportunities for practical, applied qualitative research activities. Course will be offered on odd numbered years (Spring, Summer).

PUBH 651. Public Health Leadership and Ethics (3). This course will provide graduate level training in leadership strategies specific to Public Health, and developing skills as an ethical leader. Case studies, readings, and small group conversations will be utilized in this intensive course. Course will be offered on odd numbered years (Spring).

PUBH 675. Portfolio Development Seminar (2). This course will assist students in the preparation of their cumulative experience portfolio, including their graduate thesis or project plans. Students will complete artifact collection, demonstrating mastery of a set of core competencies toward the MPH degree and discuss with a faculty advisor their plans for completion of the thesis or project capstone requirement. Permission of department. Course will be offered every year (Fall, Summer).

PUBH 692. Field Experience in Public Health (1-6). Practicum experiences include significant field-based or research projects, community outreach and education, teaching or other related activities under the guidance of the student's academic advisor. May be repeated up to 6 credits. Grade will either be S or U. Permission of department. Course will not have an established scheduling pattern.

PUBH 696. Individual Study (1-6).

May be repeated if subject is different.

PUBH 698. Special Topics (1-6). May be repeated if subject is different.

PUBH 699. Seminar (1-6). May be repeated if subject is different.

PUBH 700. Graduate Capstone in Public Health (1-6). Students will complete the graduate capstone requirement toward a research thesis/project under the supervision of the student's approved graduate committee. Permission of department. May be repeated up to 6 credits. Grade will either be S or U. Course will be offered every year (Fall, Winter, Spring, Summer). Prerequisite: PUBH 675.

Resource Management Courses

REM 501. Introduction to Resource Management (4). The nature of resources; traditional systems of resource management; problems associated with resource "ownership"; principles, and practice of management related to local, regional, and global resources.

REM 502. Policy and Law in Resource Management (5). The scope and formation of U.S. resource policy, history of resource-related policies and legislation, current legislation and policies, future directions in resource policy.

REM 505. Introduction to Graduate Research (3). Discussion and application of research problem definition, research methods, literature review, and funding sources as applied to a research proposal. By permission.

REM 506. Resource Management Colloquium (1). Seminar series for REM students to both observe and present relevant research. All REM students must take this class twice: once as an attendee and, once as an attendee who must also present their research proposal. May be repeated for credit. Grade will either be S or U.

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 cross-listed 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. May be repeated for credit. Grade will either be S or U. Prerequisite: approval of program coordinator.

REM 593. Resource Management Field Experience (1-8). Off-campus experience in the field study of resource management. May be repeated for credit. Prerequisite: permission of instructor and program director.

REM 595. Graduate Research (1-10). May be repeated for credit.

REM 596. Individual Study (1-6). May be repeated if subject is different.

REM 598. Special Topics (1-5). May be repeated for credit.

REM 599. Seminar (1-3). May be repeated for credit.

REM 696. Individual Study (1-6). May be repeated if subject is different.

REM 698. Special Topics (1-6). May be repeated if subject is different.

REM 699. Seminar (1-6). May be repeated if subject is different.

REM 700. Master's Thesis, Project Study, and/or Examination (1-6). Designed to credit and record supervised study for the master's thesis, non-thesis project, studio project, public recital, and/or examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

Recreation Tourism and Events Courses

RTE 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

RTE 505. Hospitality Catering (3). Basics of off-premise catering including menu planning, budgeting, logistics, and marketing. NUTR 405, RTE 405, and RTE 505 are layered courses; students may not receive credit for more than one.

RTE 591. Workshop (1-6). May be repeated for credit.

RTE 596. Individual Study (1-6). May be repeated for credit.

RTE 598. Special Topics (1-6). May be repeated under different titles.

RTE 599. Seminar (1-5). May be repeated for credit under different titles.

RTE 696. Individual Study (1-6). May be repeated if subject is different.

RTE 698. Special Topics (1-6). May be repeated if subject is different.

RTE 699. Seminar (1-6). May be repeated if subject is different.

Science Education Courses

SCED 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. May be repeated for credit. Grade will be XG. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.

SCED 511. Field Experience in Communicating Science to the Public (2). Applied field experience in communicating science to the public. Methods, techniques, materials, and practices for effective communication of scientific ideas, and methods. SCED 411 and SCED 511 are layered courses, students may not receive credit for both. May be repeated up to 4 credits.

SCED 515. STEM Outreach Field Experience (1-2). Applied field experience in communicating and teaching science, technology, engineering, and mathematics (STEM) concepts to children. Involves planning and conducting demonstrations, lessons, and activities. Outreach outside of class time is required. May be repeated up to 4 credits.

SCED 542. Teaching Science at Community Colleges (3). Course topics will include the role community colleges play in the educational system, an introduction to teaching and learning philosophy appropriate for teaching science at the community college, and the practical application of learned material in an authentic classroom. Formerly CHEM 542; students may not receive credit for both.

SCED 596. Individual Study (1-6). May be repeated if subject is different.

SCED 598. Special Topics (1-5).

SCED 599. Seminar (1-5). May be repeated if subject is different.

SCED 696. Individual Study (1-6). May be repeated if subject is different.

SCED 698. Special Topics (1-6). May be repeated if subject is different.

SCED 699. Seminar (1-6). May be repeated if subject is different.

Supply Chain Management Courses

SCM 510. Supply Chain Management Principles and Practices (5). Adoption of a supply chain orientation toward business management which emphasizes inter-functional and inter-firm relationships to improve coordination of operations and performance of participants in various types of supply chains. Prerequisite: admission to the Master of Professional Accountancy Program.

SCM 596. Individual Study (1-6). May be repeated if subject is different.

SCM 598. Special Topics (1-6). May be repeated if subject is different.

SCM 599. Seminar (1-5). May be repeated if subject is different.

SCM 696. Individual Study (1-6). May be repeated if subject is different.

SCM 698. Special Topics (1-6). May be repeated if subject is different.

SCM 699. Seminar (1-6). May be repeated if subject is different.

Safety and Health Management Courses

SHM 501. Safety Sciences (4). Covers the basics of safety science using the current technical domains of the Board of Certified Safety Professionals: Associate Safety Professional examination, including hazard recognition/control, fire prevention/protection, hazardous materials, ergonomics, environmental management, training, and education. Course will be offered on odd numbered years (Fall). Prerequisite: admitted to SHM MS program.

SHM 502. SHM Graduate Resources (1). Designed to prepare graduate students for the SHM graduate program. The course covers resources, programs, research and case study formats, degree planning, and study strategies for online courses. Course will be offered on odd numbered years (Fall). Prerequisite: admitted into SHM MS program.

SHM 554. Risk Management Principles and Practices (4). An overview of risk management, categories of risk, the loss exposures an organization may face, and tools that safety/risk management professionals can use to determine the significance of a loss exposure to an organization. SHM 454 and SHM 554 are layered courses, a student may not receive credit for both. Course will be offered every year (Fall). Prerequisite: admitted into SHM MS program.

SHM 571. Crisis Management and Continuity of Operations (4). Covers proactive crisis and emergency

management from the perspective of an EHS executive. Topics include: contingency planning, impact analysis, risk and crisis communication, incident management, disaster recovery, and organizational continuity. Course will be offered on odd numbered years (Winter). Prerequisite: admitted into SHM MS program.

SHM 574. Advanced Safety

Management (4). Examines the dynamics of safety management in complex business entities, including safety management systems, human error, prevention through design, and management of change, in order to align safety as a core element of business operations. Course will be offered on even numbered years (Winter). Prerequisites: SHM 501 and admitted into SHM MS program.

SHM 575. EHS Administration and

Ethics (4). Examines elements of strategic environmental health and safety (EHS) administration and common leadership models, including achievement of organizational EHS goals. Describes how EHS leaders encourage ethical behavior in the workplace. Course will be offered on even numbered years (Winter). Prerequisite: admitted into SHM MS program.

SHM 576. EHS Program Management

(4). Discusses the interactions of environmental, health, safety, and sustainability programs and management needs based on regulatory requirements and best practices, including development of contract requirements, contractor evaluation, budgeting, and staffing. Course will be offered on even numbered years (Spring). Prerequisite: admitted into SHM MS program.

SHM 578. EHS Analytics (4). Provides an overview of various environmental health and safety (EHS) data sources, and explains ways to collect, analyze, and evaluate them to derive trends and identify needs to continuously improve an organization's EHS performance. Course will be offered on even numbered years (Spring). Prerequisite: admitted into SHM MS program.

SHM 579. EHS Sustainability and Stewardship

(4). Discusses how environmental health and safety (EHS) programs interact with and impact sustainability and product stewardship, including opportunities for measurable impacts to a business entity. Course will be offered on even numbered years (Fall). Prerequisite: admitted into SHM MS program.

SHM 581. Advanced Industrial

Hygiene (4). Covers industrial hygiene from the perspective of an EHS executive. Topics include: exposure assessment strategies, control and hazard banding, emergency response, reviewing industrial hygiene reports, ethical considerations, and communication of exposure data.

Prerequisite: admitted into SHM MS program.

SHM 582. EHS Research Methods (5).

Covers research methods in environmental health and safety (EHS). Topics include: scientific methods, research design, report writing, interpretation of existing research, development of research problems, and capstone project pre-proposal preparation with literature review.

Course will be offered on odd numbered years (Spring). Prerequisites: SHM 502 and SHM 578 and admitted into SHM MS program.

SHM 700. Master's Thesis, Project Study, and/or Examination (1-6).

An applied project experience that integrates the principles, theories, and concepts of the student's career concentration with problems or questions relevant to the environmental health and safety (EHS) management field. May be repeated up to 6 credits. Grade will either be S or U. Permission of department. Course will be offered on odd numbered years (Summer). Prerequisite: SHM 582.

Sociology Courses

SOC 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

SOC 501. Social Science Research Methods (5). Principles of scientific research methodology applied to human behavior. Prerequisite: graduate standing or permission of instructor.

SOC 564. Statistical Analysis of Social Data I (Put on reserve 9/16/17) (2). Elementary and advanced descriptive statistics for the social sciences. Topics include graphical displays of data, probability, measures of central tendency and variability, and measures of association between two or more variables. (Put on reserve 9/16/17. Will go inactive 8/24/2020.)

SOC 565. Statistical Analysis of Social Data II (Put on Reserve 9/16/16) (2). Elementary and advanced inferential statistics for the social sciences. Topics

include statistical inference theory and hypothesis testing of sample means, proportions, correlation and regression coefficients, and other measures of association. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

SOC 566. Organization Research and Assessment (5). Principles of scientific research, methodology, and their application to the analysis of organizations. Prerequisite: by permission.

SOC 596. Individual Study (1-6). By permission. May be repeated for credit.

SOC 598. Special Topics (1-6). May be repeated for credit.

SOC 599. Seminar (1-5). May be repeated for credit.

SOC 696. Individual Study (1-6). May be repeated if subject is different.

SOC 698. Special Topics (1-6). May be repeated if subject is different.

SOC 699. Seminar (1-6). May be repeated if subject is different.

Spanish Courses

SPAN 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university. May be repeated for credit.

SPAN 596. Individual Study (1-6). May be repeated if subject is different.

SPAN 598. Special Topics (1-6). May be repeated if subject is different.

SPAN 599. Seminar (1-5). May be repeated if subject is different.

SPAN 696. Individual Study (1-6). May be repeated if subject is different.

SPAN 698. Special Topics (1-6). May be repeated if subject is different.

SPAN 699. Seminar (1-6). May be repeated if subject is different.

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. May be repeated for credit.

TH 501. Introduction to Graduate Studies (1). Introduction to current theatre research topics and library resources. Prerequisite: admission to the MA program.

TH 502. Introduction to the Creative Project (1). Research and preparation for directing the culminating Creative Project: production of an approved play at the candidate's home venue. Review of MLA and documentation format and

content. Grade will either be S or U.
Prerequisite: TH 501. All coursework (except TH 700) in course of study must be completed.

TH 503. Survey of Theatre History and Literature (Put on Reserve 9/16/16)

(4). Study of important periods of theatre history from beginnings to the present and analysis of selected plays from each period. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

TH 505. Research Methods (2). The procedure, techniques, and application of research methods in theatre.

Prerequisite: admittance to the Theatre Master's program.

TH 510. Theatre Literature, Theory and Criticism I (4). Explore critical analysis from ancients to modernism and its application to theatre/dramatic texts. Prerequisite: admittance to the Theatre Master's program.

TH 511. Theatre Literature, Theory and Criticism II (4). Explore critical analysis from modernism to the present and its application to theatre/dramatic texts. Prerequisite: admission to MA program or permission of instructor.

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 post-modern world drama. May be repeated for credit as topics change.

TH 514. Studies in Asian Drama (On reserve as of 9/16/15) (5). The study of theory and practices of traditional drama, puppetry, and dance-drama forms of Asia. May be repeated for credit as topics change. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

TH 515. Studies in Ethnic Drama (On reserve as of 9/16/15) (5). The study of theory and practices of multicultural plays by people of color and other ethnic groups. May be repeated for credit as topics change. Put on reserve as of 9/16/15. Will go inactive 8/24/18.

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 (Put on Reserve 9/16/16) (5). The study of theory and practices of drama of state-controlled censorship and/or sponsorship, i.e., drama under the French Revolution, drama under the

Third Reich, or NEA-sponsored performance. May be repeated for credit as topics change. (Put on Reserve 9/16/16. Last taught in 2013. Will go inactive 8/24/19.)

TH 523. Introduction to Theatre Pedagogy (3). An introduction to the pedagogical theories and practices in theatre. Focus will be placed on both the study and practice of teaching strategies.

TH 525. Theatre History Ancients-Renaissance (3). The study of theatrical history from the Ancients through the Renaissance. Prerequisite: admittance to the Theatre Master's program.

TH 526. Theatre History Renaissance-Modernism (3). The study of theatrical history from the Renaissance through Modernism. Prerequisite: admittance to the Theatre Master's program.

TH 527. Theatre History Modernism-Contemporary (3). The study of theatrical history from Modernism to contemporary. Prerequisite: admittance to the Theatre Master's program.

TH 536. Stage Movement (3). Study and practice in specialized movement techniques for the stage, as applied to the skill development of special movement skills such as; performance, stage, combat, mime or dance at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in stage movement or dance. May be repeated up to 6 credits, if the content changes. Prerequisite: admission to the MA in theatre production or department consent.

TH 540. Contemporary Directing (3). Theory and practice in directing contemporary realistic plays.

TH 541. Styles in Acting and Directing (3). Theory and practice acting in and 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 556. Sound Methods (3). Theory and practice of engineering and creating sound for stage and screen. Course will not have an established scheduling pattern.

TH 564. Wig Applications (3). The study and practice of creating and restoring wigs for stage. TH 464 and TH 564 are equivalent courses; student may not receive credit for both. Additional course fees apply.

TH 565. Costume and Makeup Methods (3). Study and practice of creating costumes and related accessories, and makeup techniques for realistic and classic productions found at the secondary and college levels. Presented in a workshop intensive setting. Presented in a workshop intensive setting. May be repeated up to 6 credits if content changes.

TH 566. Mask and Makeup Methods (3). Study and practice of creating masks, makeup, and related accessories and special effects in productions found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite: admission to the MA in theatre production or department consent.

TH 568. Lighting Methods (3). Study and practice in the concepts of color, instruments, drafting, trouble shooting techniques, and electricity for lighting stage productions with emphasis on equipment and design applications found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite: admission to the MA in theatre production or department consent.

TH 571. Design Methodology (3). Study and practice in the concepts and fundamentals of design for stage productions found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite: admission to the MA in theatre production or department consent.

TH 583. Scenic and Property Methods (3). Study and practice of construction, assembly, and scene-shifting techniques; shop safety; painting; and/or prop construction for stage productions found at the high school and community college levels. Presented in a workshop intensive setting. Enrichment students seeking to enroll in this course require previous training and/or experience in theatre. May be repeated up to 6 credits if content changes. Prerequisite:

admission to the MA in theatre production or department consent.

TH 587. Theatre Pedagogy (4). Student will be given individualized instruction in teaching practices and will participate in journal writing, critiquing, counseling, coaching, advising, leading discussion, and grading. TH 487 and TH 587 are equivalent courses; students may not receive credit for more than one. May be repeated up to 8 credits.

Prerequisite: TH 501

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 up to 6 credits.

TH 591. Workshop (1-6). No more than two workshops for a combined maximum of 8 credits can be applied toward a master's program.

TH 593. Dramaturgical Practicum (1-3). Practical experience in dramaturgy within the context of theatre production. May be repeated up to 6 credits. Prerequisite: TH 588.

TH 595. Culminating Portfolio (1). LiveText portfolio will be employed to build professional portfolios, documenting theatre training and compliance with state certification and NCATE standards. Grade will either be S or U.

TH 596. Individual Study (1-6). May be repeated for credit.

TH 598. Special Topics (1-6). Course content identified by title in the university class schedule. May be repeated for credit under different titles.

TH 599. Seminar (1-5). May be repeated for credit.

TH 600. Capstone Practicum (1). Mentored practicum in directing techniques where student demonstrates mastery of the skills acquired in the program; through the direction of, and participation in, a series of one-act projects in the classroom setting. This course is taken the final summer of study and must be completed satisfactorily in order to advance to the final requirement for graduation, the creative project (TH 700, Thesis). Prerequisite: completion of, or concurrent enrollment in, all course work leading to the creative project. Grade will be either S or U. Prerequisite: admission to the MA in

theatre production or department consent.

TH 696. Individual Study (1-6). May be repeated if subject is different.

TH 698. Special Topics (1-6). May be repeated if subject is different.

TH 699. Seminar (1-6). May be repeated if subject is different.

TH 700. Master's Thesis Project (1-6). Designed to credit and record supervised study for the master's examination. May be repeated up to 6 credits. Grade will either be S or U. Prerequisite: permission of chair of student's graduate faculty supervisory committee.

University and Enrichment Courses

UNIV 509. Civic Engagement (3). Student will use program of study content knowledge to improve a community situation. May be repeated up to 12 credits. Grade will either be S or U. UNIV 509, FCSG 509, EDAD 509, and EDCS 509 are cross-listed courses, students may not receive credit for both.

World Languages Courses

WL 500. Professional Development (1-5). Development topics and issues for in-service and continuing education of professionals. May be repeated for credit. Exclude GPA. Not applicable to degrees nor institutional requirements for endorsements or teaching certificates offered through the university.

WL 596. Individual Study (1-6). May be repeated if subject is different.

WL 598. Special Topics (1-6). May be repeated if subject is different.

WL 599. Seminar (1-5). May be repeated if subject is different.

WL 696. Individual Study (1-6). May be repeated if subject is different.

WL 698. Special Topics (1-6). May be repeated if subject is different.

WL 699. Seminar (1-6). May be repeated if subject is different.