

Table of Contents

Table of Contents.....	1
2016-2017 Undergraduate Catalog	4
Accreditation.....	5
Northwest Missouri State University	6
Academic Calendar	12
Admissions	13
Fees and Costs	27
Financial Assistance	30
Registration.....	36
Policies and Regulations.....	37
Resources and Services	53
University Requirements.....	64
The Northwest Core.....	65
Undergraduate Degrees	71
Academic Structure	79
The College of Arts and Sciences	80
School of Agricultural Sciences/ 03.....	207
Melvin D. and Valorie G. Booth School of Business	220
School of Communication and Mass Media.....	235
School of Computer Science and Information Systems.....	251
School of Education.....	266
School of Health Science and Wellness	282
The Missouri Academy of Science, Mathematics and Computing / 81.....	304
Courses.....	308
Appendix	430
Faculty	439

2016-2017 Undergraduate Catalog

Accreditation

Northwest is accredited by the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools.

In addition to being accredited by the Higher Learning Commission, Northwest programs are accredited by:

- Accreditation Council of Business Schools and Programs (ACBSP)
- National Association of Schools of Music (NASM)
- Accreditation Council for Education in Nutrition and Dietetics (ACEND)
- Council for the Accreditation for Parks, Recreation, Tourism & Related Professions (COAPRT)
- Missouri State Board of Education
- National Association for the Education of Young Children (NAEYC)
- Council for the Accreditation of Educator Preparation (CAEP)

The Professional Education Unit at Northwest Missouri State University is accredited by the Council for the Accreditation of Educator Preparation (CAEP), www.ncate.org. This accreditation covers initial teacher preparation programs and advanced educator preparation programs at the Maryville campus and outreach centers in Kansas City and St. Joseph, Missouri. However, the accreditation does not include individual education **courses** that the institution offers to P-12 educators for professional development, relicensure, or other purposes.

Northwest receives an endorsement from the American Chemical Society (ACS) for chemistry programs.

Colleges and departments also maintain memberships in the following organizations:

- American Association of Colleges for Teacher Education (AACTE)
- Council on Undergraduate Research
- Missouri Academy of Science
- Missouri Association of Colleges for Teacher Education (MACTE)
- Renaissance Group

Northwest Missouri State University

Students are expected to read and conform to the regulations in this catalog. The student, not the University nor faculty members, is primarily responsible for knowing the regulations and policies, and for meeting the requirements for a degree or certificate.

A copy of this catalog is issued to each new student. Students are expected to keep the catalog throughout their college career. Students are advised to study closely the course offerings available on the website and to consult with faculty advisors for planning.

The information in this publication endeavors to be as current and accurate as possible. Due to the constant change in economic conditions and in student program needs, the accuracy of the details appearing here may be affected. There may be a possibility from time to time that classes will be deleted from this catalog or from trimester course offerings for lack of sufficient enrollment.

This catalog does not constitute a contract but is for information only .

Address of all University offices:

Northwest Missouri State University

800 University Drive
Maryville, Missouri 64468-6001

Academic and Administrative Office Hours:

8 a.m. to 5 p.m., Monday through Friday (except holidays)

University Information:

(660) 562-1212

Web Address:

www.nwmissouri.edu

Statement of Non-Discrimination

Northwest Missouri State University emphasizes the dignity and equality common to all persons and adheres to a strict nondiscrimination policy regarding the treatment of individual faculty, staff, students, third parties on campus, and applicants for employment and admissions. In accord with federal law and applicable Missouri statutes, the University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, pregnancy, ancestry, age, disability, genetic information, veteran status, or any other legally-protected class, in employment or in any program or activity offered or sponsored by the University, including, but not limited to, athletics, instruction, grading, the awarding of student financial aid, recruitment, admissions, and housing. As an equal opportunity employer, the University promotes and maintains affirmative action programs to ensure that all individuals participate fully in every facet of employment opportunities.

Persons having inquiries concerning the University's compliance with this policy or any laws and regulations prohibiting discrimination are directed to contact the following:

- An employee with questions or concerns about any type of discrimination in the workplace, including discriminatory harassment, is encouraged to bring these issues to the attention of the Equal Employment Opportunity (EEO) Officer, who may be contacted at: EEO Officer, Northwest Missouri State University, 800 University Drive, Maryville, Missouri, 64468-6001 (660-562-1128).
- Questions or concerns regarding the University's compliance with Title IX may be directed to the University's Title IX Coordinator or Deputy Title IX Coordinators. The University has designated the following Title IX Coordinator and Deputy Title IX Coordinators as named in the University's Title IX Policies and Procedures:

Rebecca Lawrence, Title IX Coordinator, Student Union, 660-562-1013,
rebecca@nwmissouri.edu

Nola Bond, Vice President of Human Resources (Deputy Employee
Coordinator), 125 Administration Building, 660-562-1127, nbond@nwmissouri.edu

Kori Hoffmann, Student Development and Conduct Coordinator (Deputy
Student Coordinator), Union Room 2140, 660-562-1554, khoff20@nwmissouri.edu

- For ADA/Section 504 related questions or concerns, please contact:
Rebecca Lawrence, ADA/504 Coordinator, Student Union, 660-562-1013,
rebecca@nwmissouri.edu
- For all other inquiries related to discrimination at the University, please contact:
Nola Bond, Vice President of Human Resources, 125 Administration Building,
660-562-1127, nbond@nwmissouri.edu

No individual will be subject to any form of retaliation, discipline, or other adverse action for reporting conduct in violation of the University's nondiscrimination/EEO policy, assisting/cooperating in making a complaint, or assisting with the investigation of a complaint. Any individual who believes they have experienced or witnessed retaliation should immediately notify the appropriate member(s) of the administration as identified above. Those found to be engaging in any type of discrimination in violation of the law or University policy will be subject to disciplinary action, up to and including dismissal or termination of employment.

Copies of the University's Equal Employment Opportunity ("EEO") Guidelines are available in the Office of Human Resources.

Message from the President

Northwest students:

It is with Bearcat fervor that I welcome you and invite you to explore Northwest and all it has to offer. Please use this catalog to advance your knowledge about the array of academic opportunities available at Northwest.

At Northwest, our mission is focusing on the success of our students - every student, every day. Not only does Northwest boast a significantly higher freshman success rate than other moderately selective universities in Missouri, but our graduation rate is also considerably higher than the national average. Furthermore, we boast significantly high undergraduate and graduate placement rates. We put a high premium on your success!

Across the nation, the buzzwords of access, affordability and accountability permeate nearly all conversations in higher education. While these terms have different meanings for different constituents, we at Northwest tend to look at these from a dual perspective: Our responsibility as an institution and your responsibility as a Bearcat.

Access: The traditional definition is that citizens have access to environments of higher education. However, we don't believe our responsibility ends once you are admitted to Northwest. "Access" to us also means that we provide open-door policies, student-faculty ratios ensuring access to faculty, and student services designed by and for students and available at the times you need them. Your responsibility is simple: to access faculty as advisors and mentors, and to access student organizations and services. We want you to access everyone who works diligently on a daily basis with one goal in mind: to ensure the best possible learning opportunities and living environment for you. In short, Bearcats connect, and we encourage you to do so.

Affordability: We consider this responsibility every day and ensure we stretch every dollar we can to its fullest. That said, we focus on the highest quality for you as we help design your experiences. It's a balancing act and we are quite proud of what we provide - as are more than 70,000 Northwest alumni and friends! Your responsibility is to be a smart consumer and to join us in respecting our environment.

Accountability: Northwest is accountable to you, taxpayers and a range of others, and our institution is managed in a transparent environment. We expect you, too, to be accountable for your experience at Northwest. Actively engage with your professors both in and out of the classroom. Take advantage of services and academic support resources. Develop relationships with fellow students that will contribute positively to your ongoing success.

So, when Northwest says it will be THE university of choice for a comprehensive, exceptional student experience, what does that look like? It includes:

- A relevant general education curriculum designed to deepen your understanding of the world and how to communicate this understanding. It will help you appreciate the ways in which others interpret the world around us, which will equip you for success as citizens and as professionals in your chosen disciplines;
- Majors and minors designed by faculty, who are experts in the discipline, and shaped by industry professionals to ensure your courses meet the demands of the marketplace;
- More than 175 student organizations in addition to numerous extracurricular academic, practicum and internship experiences that allow you to apply learning beyond classroom situations;
- One-on-one learning opportunities with the most committed faculty anywhere as well as other academic services such as tutors and supplemental instruction to help you succeed at an even higher rate;
- The opportunity for you to engage in the learning and living environment as much as you wish and to shape your learning plan as you progress;

- A robust intramural program and club sports in addition to an NCAA Division II athletic program featuring championship-caliber teams;
- A student employment program designed to augment your classroom learning, to provide professional development and to help keep your Northwest education affordable;
- A safe environment punctuated by a campus designated as the Missouri Arboretum that is also focused on sustainability and alternative energy; and
- Access to and interaction with passionate and committed alumni who are dedicated to advancing Northwest and ensuring learning opportunities for you.

Notice the above does not just focus on the classroom and the ensuing catalog offerings. Why? It's because we view the academic experience as a *comprehensive* experience. I challenge you to truly engage in the collegiate experience. All research shows that engaged students are successful students. Better yourself. Better Bearcat Nation. Better our community. You'll be a productive and engaged citizen and make our world a better place.

Thank you for being a Bearcat. We believe in you. You believe in yourself. Together we believe in the Green and White.

Sincerely,

A handwritten signature in cursive script that reads "John Jasinski". The ink is black and the signature is fluid and legible.

Dr. John Jasinski

President

Northwest's Mission, Vision and Values

Mission

Northwest Missouri State University focuses on student success - every student, every day.

Vision

We will be the university of choice for a comprehensive, exceptional student experience.

Values

We value:

- Student Success
- Scholarship and life-long learning
- Intercultural experience
- Collaboration
- Respect and integrity
- Strategic thinking
- Excellence

History

Northwest Missouri State University began in 1905 as Missouri's Fifth District Normal School to provide teachers for the schools of a 19-county region in northwest Missouri. The University still fulfills that function, but the institution has now grown into a comprehensive state university that offers more than 120 undergraduate programs, 40 master's degrees, two collaborative graduate programs, three specialist degrees, a cooperative doctoral program and five certificate programs.

Northwest's history includes three name changes. In 1919, the Missouri General Assembly changed the name to Northwest Missouri State Teachers College and established the privilege of granting baccalaureate degrees. On July 21, 1949, the Board of Regents changed the name to Northwest Missouri State College. The final name change occurred August 14, 1972, when the Board of Regents, recognizing the evolution of the school into a comprehensive institution, changed the name to Northwest Missouri State University.

Northwest has evolved into a vibrant and diverse learning community with an enrollment of more than 6,500 students from 39 states and 30 countries. About 700 faculty and staff are employed by the University, which offers classes on its Maryville campus, at centers in Kansas City and St. Joseph, online and through instructional television (ITV).

In 1987, Northwest unveiled its unique Electronic Campus program that was designed to accelerate student learning and enrich faculty teaching and research by placing a computer terminal in every student residence hall room and faculty office. The program was the first of its kind on a public college or university campus in the United States. Today, all full-time students are provided a fully-loaded laptop computer, enabling all students access to technology and the software they need to be successful.

The Missouri Academy of Science, Mathematics and Computing was founded at Northwest in 2000. The rigorous program is an accelerated, two-year residential program for high school juniors and seniors academically talented in science, mathematics or technology. Students are challenged by college coursework tailored to individual abilities and taught by Northwest faculty. Students who complete the program earn both a high school diploma and associate of science degree.

Northwest serves its community and region in economic development. The state-of-the-art 46,679-square-foot Center for Innovation and Entrepreneurship, which opened on the campus in 2009, is a mixed-use business incubator and an academic facility that fuels high-tech enterprise and creates jobs while providing academic opportunities and career paths for students. Additionally, the facility houses the University's undergraduate program in nanotechnology.

With its emphasis on student success - every student, every day - the university is focused on providing an exceptional student experience that places high value on scholarship and life-long learning, intercultural competence, collaboration, respect and integrity, strategic thinking and excellence.

Academic Calendar

2016-2017

Fall Trimester 2016		
August 24	Wednesday	University/College meeting
August 25-26	Thursday-Friday	Department Planning/Development
August 27	Saturday	General Registration
August 29	Monday	Classes begin
September 5	Monday	Labor Day, no classes
October 14	Friday	First Block ends
October 17	Monday	Second Block begins
October 21	Friday	Walkout Day, no classes
October 22	Saturday	Homecoming
November 22	Tuesday	Thanksgiving Vacation begins, 5 p.m.
November 28	Monday	Classes Resume, 8 a.m.
December 12-16	Monday-Friday	Final Exams
December 16	Friday	Commencement
December 19	Monday	Grades due at 10 a.m.
Spring Trimester 2017		
January 4	Wednesday	University/College meetings
January 5-6	Thursday-Friday	Department/Planning Development
January 6	Friday	General Registration
January 9	Monday	Classes begin
January 16	Monday	Martin Luther King Holiday, no classes
February 24	Friday	First Block ends
February 27	Monday	Second Block begins
March 20-24	Monday-Friday	Spring Break
March 27	Monday	Classes Resume
April 24-April 28	Monday-Friday	Final Exams
April 29	Saturday	Commencement
May 1	Monday	Grades due at 10 a.m.
Summer Trimester 2017		
May 8	Monday	First Session begins and Registration
May 29	Monday	Memorial Day, no classes
June 2	Friday	First Session ends
June 5	Monday	Second Session begins and Registration
June 30	Friday	Second Session ends
July 3	Monday	Third Session begins and Registration
July 4	Tuesday	Independence Day, no classes
July 28	Friday	Third Session ends
July 31	Monday	Fourth Session begins and Registration
August 14	Monday	Fourth Session ends, Official Graduation Date
August 15	Tuesday	Grades due at 10 a.m.

Admissions

Admission to Undergraduate Study

Northwest accepts students regardless of age, race, creed, sex, color, religion, national origin or handicap. Prospective students and their parents are encouraged to visit the campus. To schedule a visit, call the Northwest Office of Admissions toll-free at 1-800-633-1175.

To apply, complete the Northwest Application for Admission and submit official high school and/or college transcripts and ACT/SAT scores as appropriate. All materials should be received by the Northwest Office of Admissions at least two weeks before the anticipated date of enrollment.

Freshman Admissions

Northwest is moderately selective; admission is based on a combination of academic and personal considerations. Northwest takes an individual, holistic approach to the review of applications. All applicant's academic accomplishments are a priority and are demonstrated by test scores, grades, class rank and exposure to a college prep curriculum. Admission to Northwest is not viewed as an entitlement based on grades and test scores. Our admission process combines an examination of academic ability with flexible assessment of an applicant's experiences and potential.

New freshmen graduating from high school in the Spring of 2010 or after are required to have completed a 24-unit curriculum (16-unit core curriculum for 1996-2009 graduates). In addition, students must be from an accredited high school and meet the requirements in Category I or Category II below.

Category I

1. 21 ACT composite or higher (or the SAT (Critical Reading + Mathematics) equivalent: SAT-980 or higher) and
2. Minimum 2.00 cumulative GPA or above (on 4.00 scale)

Category II

1. Have a combined percentile index that equals or exceeds 100 points; and
2. Minimum 2.00 cumulative GPA or above (on 4.00 scale)

For those students not meeting these requirements, the University will consider each case on an individual basis and will use professional judgment in admitting students that demonstrate academic promise and potential for success. Additional information, such as letters of recommendation and a personal statement, may be requested. Conditions may be placed on the enrollment of such students, if accepted into the University.

Application Fee

An application fee may be required for new students applying to Northwest. A complete listing of application fees is available by phone at (800) 633-1175.

Combined Percentile Index

Figure the class rank percentile by dividing class rank by class size, then subtract that percentile from 100 percent.

Using the Test Score Percentile Chart given below, find the appropriate ACT/SAT composite test score percentile.

Add it to the class rank percentile to get the Combined Percentile Index.

For example:

Class Rank = 6	ACT Composite Score = 19
Class Size = 30	ACT Percentile = 42

$1 - (6 \text{ divided by } 30) = .80$ or 80 percentile

Class Rank percentile = 80 percentile

Combined Percentile Index = $80 + 42 = 122$

Combined Percentile Index of 122 exceeds the minimum combined percentile index of 100, so the student would be admissible to Northwest if core curriculum and GPA requirements were met.

Test Score Percentile Chart

Composite ACT	Minimum SAT I	Percentile
36	1600	99
35	1540-1590	99
34	1490-1530	99
33	1440-1480	99
32	1400-1430	99
31	1360-1390	99
30	1330-1350	98
29	1290-1320	96
28	1250-1280	94
27	1210-1240	91
26	1170-1200	87
25	1130-1160	83
24	1090-1120	78
23	1050-1080	72
22	1020-1040	66
21	980-1010	58
20	940-970	51
19	900-930	42
18	860-890	34
17	820-850	26
16	770-810	19
15	720-760	13
14	670-710	8
13	620-660	4
12	560-610	2
11	510-550	1

(NOTE: SAT I Exam became effective after April 1, 1995)

SAT I score is a combination of SAT Critical Reading and SAT Mathematics scores.

24-Unit Core Curriculum-2010 high school graduates and beyond

- 4 units of English
- 4 units of Mathematics
(high school level algebra or higher)

- 3 units of Science
(must include at least one laboratory science)
- 3 units of Social Science
(must include American history and at least one semester of government)
- 1 unit of Fine Arts
- 3 units of Additional Coursework (1 practical art, 1 physical education, 1/2 health education, 1/2 personal finance)
- 6 units of Elective (At least three units must be in English, mathematics, science, social science, fine arts or foreign language.)

Note: 1 unit = 1 year

Freshman Requirements

Northwest requires of freshman students an official ACT score report. Scores sent by the high school may be used for admission purposes but official scores for the date when the highest composite score was achieved must come directly from ACT to complete the student's admission record. The ACT is used for admission, placement and advisement purposes; the Scholastic Aptitude Test (SAT) may also be used. Residual test scores are not acceptable, unless taken at Northwest.

To Apply:

- Carefully and promptly complete the Application for Admission and submit it to the Northwest Office of Admissions.

Online Only Application Deadline: Students applying for online only courses must apply two weeks prior to the first day of classes.

- Students should arrange to have their high school principal or guidance counselor forward a final and official copy of their high school transcript of courses taken and the grades received, cumulative GPA, class rank and expected date of graduation to the Northwest Office of Admissions. Provisional acceptance will be considered upon receipt of a six-semester partial transcript showing class rank. Students enrolled in college credit courses under the Dual Credit Program need to request an official college transcript be sent to the Office of Admissions upon completion of the course.
- Students should ask ACT or their high school to send an official copy of their ACT scores to the Office of Admissions (SAT is acceptable). Scores provided by the high school may be used for admission purposes but official scores from ACT for the highest composite score received are required to complete the admission record.

Home-schooled Students

Home-schooled students will be evaluated similar to those students who attended/are attending a public or private high school. Applicants must submit their ACT or SAT results and a transcript listing of high school courses and grades for each course.

In order to be accepted, homeschooled students must meet one of the following criteria:

1. A 21 or higher on the ACT (or SAT equivalent) **OR**
2. A GED score of at least 680 with no subscore below 150 **OR**
3. A HiSET score of 75 or better

Official ACT/SAT scores directly from ACT or CollegeBoard are also required for course placement and scholarship purposes.

Former Missouri Academy Students

Former Missouri Academy students will be evaluated similar to those students who attended/are attending a public or private high school. Applicants must submit their ACT or SAT results if they have not already been provided to the Missouri Academy. Any student who has previously attended the Missouri Academy of Science, Mathematics and Computing will only be considered for undergraduate admission to Northwest Missouri State University if one of the following criterion has occurred or been met:

1. The student has earned their Associate of Arts degree from Northwest Missouri State University **OR**
2. The student's initial cohort class has graduated from the Missouri Academy.

Credit for External Examinations

Northwest utilizes College Board Advanced Placement Tests (AP), College Level Examination Program (CLEP) examinations, International Baccalaureate (IB), and Defense Activity for Non-Traditional Education Support (DANTES) to award credits toward graduation. The AP exam and IB are administered through the student's high school, while the CLEP may be taken on campus through the Assessment Office or at any other institutional testing center. Students may not receive credit for any of these exams in subject areas already enrolled in at the college level or in which college credit has already been granted; students may not receive credit for CLEP exams retaken less than six months after the previous exam. In order to receive credit, students must supply the Office of Admissions with original score reports from the testing agency.

Northwest does not award credit for all AP, CLEP, IB or DANTES examinations. Northwest will allow credit for scores on selected exams as follows:

Advanced Placement

Course (Northwest Equivalent)	Score Required	Hours Granted
American Govt./Politics (34-924)	4	3
American History (33-905)	4	3
Art History (13-102)	3	3
Biology (04-102/103)	3	4
Calculus AB (17-120)	4	4
Calculus BC (17-120)	3	4
Calculus BC (17-120, 17-121)	4	8
Chemistry (24-114/115)	3	4
Chemistry (24-114/115, 24-116/117)	4	9
Computer Science A+	-	-
Computer Science AB+	-	-
Drawing (13-920)	3	3
English Language and Comp (10-111)	3	3
English Literature and Comp (10-908)	4	3
Environmental Science (04-920)	3	4
European History (26-103)	4	3
French Language (14-131)	3	3
French Literature (71-916)	3	3
German Language (71-916)	3	3
Human Geography (32-101)	3	3
Macroeconomics (52-150)	3	3
Microeconomics (52-151)	3	3
Music Theory (19-910)	4	3
Music Listening and Literature (19-201)	4	3

Physics 1 (25-110/111)	3	4
Physics 2 (25-112/113)	3	4
Physics B (25-110/111)	3	4
Physics B (25-110/111, 25-112/113)	4	8
Physics C – Mechanics (25-120/121)	3	5
Physics C – Mechanics (25-120/121, 25-230/231)	4	10
Psychology (08-103)	4	3
Spanish Language (14-141)	3	3
Spanish Literature (71-916)	3	3
Statistics (17-114)	3	3
Studio Art-Drawing++	–	–
Studio Art-General++	–	–
World History (26-103)	3	3

+ The School of Computer Science and Information Systems faculty will review and award credit on an individual basis.

++Credit will not be awarded.

CLEP Subject Examinations

Exam (Northwest Course Equivalent)	Criterion Score	Hours Granted
Composition and Literature:		
American Literature (10-908)	50	3
Analysis and Interpretation of Literature (10-908)	51	3
English Literature (10-908)	49	3
History and Social Sciences:		
American Government (34-924)	55	3
American History I–to 1877 (33-905)	49	3
American History II–1865 to Present (33-905)	49	3
Introductory Macroeconomics (52-150)	50	3
Introductory Microeconomics (52-151)	50	3
Western Civilization I (26-102)	50	3
Western Civilization II (26-103)	50	3
Science/Mathematics:		
Calculus with Elementary Functions (17-120)	49	4
College Algebra (17-118)	48	3
Trigonometry (17-119)	54	2
Pre-Calculus (17-111)	50	3
College Algebra/Trigonometry (17-118, 17-119)	50	5
General Biology (04-102/103)	49	4
General Chemistry (24-114/115)	50	4
Business:		
Financial Accounting (51-201)	55	3
Principles of Management (54-313)	50	3
Foreign Language:		
French (14-131, 14-132)	50	6
Spanish (14-141, 14-142)	50	6
French (14-131, 14-132, 14-232, 14-233)	63	12
Spanish (14-141, 14-142, 14-242, 14-243)	63	12

CLEP General Examinations

CLEP General exams may be used to fulfill Northwest Core requirements and receive credits, but are not equated to specific Northwest courses.

Exam (Northwest Course Equivalent)	Criterion Score	Hours Granted
Natural Science (98-911)	50	3
Social Science (35-906)	50	3

Humanities (26-909)	50	3
Mathematics (17-912)	50	3

International Baccalaureate Credit

Credit is given in the following disciplines: art, economics, English, foreign language, geography, history, humanities, mathematics, music, philosophy and theatre. Specific course equivalencies and hours of credit vary. **Credit is awarded for higher-level examinations only unless otherwise stated.** Contact the Office of Admissions for additional information.

Course	Score Required	Hours Granted
Biology (04-102/103)	4	4
Chemistry (24-112/113)	4	4
Chemistry (24-114/115)	5	4
Economics SL (52-130)	4	3
Economics HL (52-150)	4	3
English (10-111)	3	3
English (10-111, 10-220)	4	6
Environmental Systems & Society (32-501)	5	3
Foreign Language ‡	-	-
Geography (32-101)	4	3
Twentieth Century History SL/HL (33-155)	4	3
History of Europe and the Islamic World SL/HL (26-102)	4	3
History of Americas SL/HL (33-155)	4	3
Information Technology in a Global Society (44-920)	4	3
Math Studies SL (17-118)	4	3
Math SL (17-120)	5	3
Math HL (17-120, 17-121)	6	6
Further Mathematics (17-920)	4	3
Music (19-201)	4	3
Philosophy SL/HL (39-171)	4	3
Physics (25-110, 25-111)	4	4
Physics (25-110, 25-111, 25-112, 25-113)	5	8
Psychology (08-103)	4	3
Theatre Arts SL (43-101)	4	3
Visual Arts SL (13-910)	4	3
Visual Arts SL (13-910, 13-920)	4	6

++Credit will not be awarded.

‡The Department of Language, Literature, and Writing faculty will review and award credit on an individual basis.

DANTES Credit

DANTES Subject Standardized Tests (DSST) may be used to fulfill some course requirements. The Northwest course numbers below that end with -920 indicated Lower Division Elective credit. Northwest course numbers below that end with -990 indicate Upper Division Elective credit.

DSST Exam	ACE Score Required	Hours Granted
A History of the Vietnam War (33-990)	400	3
Art of the Western World (13-910)	400	3
Astronomy (40-122)	400	3
Business Ethics and Society (39-275)	400	3
Business Mathematics (54-920)	400	3
Criminal Justice (34-205, 34-920)	400	6
Environment and Humanity (27-911)	400	3

Ethics in America (39-909)	400	3
Foundations of Education (61-461)	400	3
Fundamentals of College Algebra (17-118)	400	3
Fundamentals of Counseling (08-920)	400	3
Fundamentals of Cybersecurity (44-990)	400	3
General Anthropology (35-108)	400	3
Here's to your Health (22-110/111)	400	3
Human Resource Management (54-920)	400	3
Human/Cultural Geography (32-101)	400	3
Introduction to Business (54-920)	400	3
Introduction to Computing (44-130)	400	3
Introduction to Law Enforcement (34-990)	400	3
Introduction to World Religions (26-162)	400	3
Lifespan Developmental Psychology (08-333)	400	3
Management Information Systems (54-920)	400	3
Money and Banking (53-990)	400	3
Organizational Behavior (54-920)	400	3
Personal Finance (53-920)	400	3
Principles of Finance (53-990)	400	3
Principles of Physical Science I (40-102)	400	3
Principles of Public Speaking (29-102)	400	3
Principles of Statistics (17-114)	400	3
Principles of Supervision (54-920)	400	3
Rise and Fall of Soviet Union (33-990)	400	3
Substance Abuse (08-920)	400	3
Technical Writing (10-920)	400	3
The Civil War and Reconstruction (33-534)	400	3

Dual Credit Courses (Transferred to Northwest)

Northwest will accept for credit, courses taken while enrolled in high school under the Dual Credit Program as long as the courses are not vocational in nature or developmental and follow the State Guidelines for Dual Credit Courses issued June 1999. In order to receive credit, the Office of Admissions must receive an official college transcript from the college or university granting the credit.

Military Service

Students who have completed active military service may be granted credit as determined by the Northwest Office of Admissions. Credit may also be granted for specific military training and MOS designations as recommended by the American Council on Education.

Transfer Admissions

Transfer students are accepted for the fall, spring, and summer trimesters.

Students who wish to transfer to Northwest are strongly encouraged to schedule a campus visit by calling the Northwest Office of Admissions at (800) 633-1175, in order to discuss transfer of credits with the Office of Admissions and with the departmental major advisor. Upon presentation of an official transcript, a degree audit will be prepared which indicates what courses remain for a student to take to complete their degree at Northwest.

Transfer Requirements

To be considered for admission on transfer criteria rather than high school criteria, a student must have completed at least 24 hours of transferable, college-level coursework. (These hours must have been earned after high school graduation.) Students who have less than 24 hours completed will be considered for admission on the basis of the freshman admission

requirements in addition to college work that has been completed. (Students transferring from non-regionally accredited institutions will also be considered as first-time freshmen. Credits cannot be transferred to Northwest from a non-regionally accredited institution.)

Transfer students must submit an application for admission along with official transcripts from all accredited colleges or universities attended. Students currently enrolled at a college or university should send an official partial transcript when making application for admission. Students must have a 2.00 (on a 4.00 scale) cumulative college grade point average in transfer in order to be accepted to Northwest. For students with a cumulative college grade point average in transfer below 2.00, consideration will be given based on professional judgment and acceptance may be granted on a probationary basis. In all cases, a student must be eligible to return to the last institution attended in order to be accepted to Northwest. If admitted, a transfer student who has less than 30 credit hours in transfer and a college cumulative GPA between 1.75 and 1.99 will be regularly admitted to the University, rather than on probation.

Application Fee

An application fee may be required for new students applying to Northwest. A complete listing of application fees is available at (800) 633-1175.

Transfer of Credits

Students transferring to Northwest from another regionally-accredited institution may be given transfer credit as their transcripts are evaluated by the Northwest Office of Admissions. Non-college parallel courses or technical credit can be transferred only for the Bachelor of Technology degree unless the Office of Admissions and the academic department concerned determine that the courses are academic in nature.

Continuing students at Northwest who wish to take courses at another institution as a visiting student should contact the Office of Admissions prior to enrolling to ensure the viability of transferring those courses into Northwest.

Transfer students have the option of meeting degree requirements as governed by the academic catalog in force at the time of the student's initial enrollment in higher education (provided that the student has maintained continuous enrollment and has remained in the same major program) or by the academic catalog in force at the time of the student's initial enrollment at Northwest.

Aside from possible waiver of Northwest Core requirements as detailed below, transfer credit will be evaluated on the same criteria established for native students as set forth in the academic policies section of this catalog. Students may challenge the interpretation of such criteria made by the Office of Admissions by petitioning the Committee on Admissions and Advanced Standing.

Transfer credits do not always have equivalents at Northwest but may satisfy Northwest Core or departmental requirements. The following 900-series course numbers are used to show if transfer courses meet Northwest Core requirements, even though the courses are not directly equivalent, or transfer as electives only:

900 ACT English Credit	911 Science
901 English 111	912 Math
902 English 112	915 Computer Competency
903 Speech Communication	916 Multiculturalism
904 American Government (with MO)	918 Science Lab
924 American Government (without MO)	920 Lower Division Elective
905 American History	922 Math Pre-requisite
906 Social Science	950 American Sign Language
907 Psychology	980 B.T. credit only, Gen Ed.
908 Literature	988 B.T. credit only

909 Humanities/Philosophy	990 Upper Division Elective
910 Fine Arts	999 Elective, before summer 1990

A student has the right to appeal a denial of credit made by the Office of Admissions to the academic department concerned. If the student is not satisfied with the decision of the academic department, further appeal may be made to the Committee on Admissions and Advanced Standing.

Transfer of Credit from Two-Year Institutions

Two-year institution credit may not substitute for upper division credit, unless approved by the major department.

Transfer Students Holding Associate of Arts or Associate of Science Degrees

Students who hold an associate of arts degree from a regionally-accredited institution in Missouri will have satisfied The Northwest Core requirements with the exception of Global Experiences courses and Digital Literacy courses within The Northwest Core, courses required by their specific academic program, and the government requirement (p. 49) stated in the Graduation Policies and Requirements section of this catalog.

Students who have completed the 42-hour block at a Missouri college/university will have satisfied The Northwest Core requirements with the exception of courses required by their specific academic program, and the Global Experience and Digital Literacy portions of The Northwest Core.

Students who hold an associate of science degree from a regionally-accredited institution or an associate of arts degree from a regionally-accredited institution that is not in Missouri will have satisfied The Northwest Core requirements if the student has at least 42 semester hours of general education with the following distribution of courses:

- Foundations:
 - Communication skills in the English language—three courses, at least two written and one oral;
 - Mathematical reasoning—one course of college-level math equivalent to Finite Mathematics or higher;
- Contexts:
 - Western and American experiences—at least two courses, one from each area
 - American government—at least one course
- Connections:
 - Literature and fine arts—two courses from one or both disciplines
 - Behavioral and social sciences—at least two courses from two different areas
 - Life Science—at least one course with lab
 - Physical Science—at least one course with lab

These 42 hours must be classified at a level designated for application towards a baccalaureate degree.

Students should note that additional courses in these areas may be required by their specific academic program and in that case are not waived by the associate degree. Please consult the major requirements outlined in this academic catalog.

Transfer students should be aware of the state law requirement for graduation as detailed in State Law Requirement for Degrees or Certificates (p. 49); due to this requirement, such students will be required to take American Government even though their Northwest Core requirements have been waived.

Articulation Agreements

Northwest Missouri State University has a number of articulation agreements with community colleges in Missouri and nearby states. These agreements express a shared commitment to increasing the opportunity for students to gain access to and success in higher education. By clarifying transfer policies and procedures which assure articulation between programs, the institutions involved seek to assist students in making a seamless transfer. A current listing of schools and agreements, may be found at <http://www.nwmissouri.edu/admissions/transfer/agreements/index.htm>.

Supersede Policy for Transfer Courses

When a student completes the same course two or more times before transferring to Northwest, credit will be awarded for only the highest grade when calculating the transfer grade point average. If a student completes the same course, once at Northwest and once at another institution, the procedures listed in Superseding Grades/Repeating Courses (p. 42) will be followed like so:

- If the student receives a grade of “D” or “F” in transfer, that grade will be superseded when the class is completed with the same or higher grade at Northwest. A petition for superseding must be completed at the time of registration in the course and can be obtained from the Registrar’s Office. The transfer grade will be averaged with the Northwest grade if a lower grade is received at Northwest.
- If the student receives a grade of “A”, “B”, or “C” in transfer, that grade will always be averaged with the Northwest grade that is earned. The grade in the transfer course will never supersede the grade earned when the course is taken at Northwest, regardless of the grade received during the time it was taken at Northwest.

To Transfer:

- Carefully and promptly complete the Application for Admission and submit it to the Northwest Office of Admissions.
- Students must also submit current official transcripts from each regionally accredited college or university previously attended (a composite transcript will not be accepted). Students currently enrolled should submit an official partial transcript at the time of application.
- Students who are transferring into Northwest’s School of Education should see The School of Education for additional requirements.

International Student Admissions

Before deciding to attend Northwest, the international student should examine his or her financial situation very carefully. The U.S. Immigration and Naturalization Service requires Northwest to certify that international students have been accepted for full-time enrollment and have sufficient funds to meet all expenses: tuition, housing, transportation, etc. Northwest requires a Statement of Support and a certified bank statement from the student’s family, sponsor, or government. The statement certifies that tuition, room and board, and personal funds are available, and that the student is permitted to export and exchange those funds into the United States. Without this certification, an I-20 Form cannot be issued. Additional requirements are following.

New International Students

To be fully admitted to Northwest, students must submit each of the following items to the Northwest Office of Admissions, Northwest Missouri State University, 800 University Drive, Maryville, Missouri, 64468-6001, USA. Forms are available by request from the Northwest Office of Admissions.

1. Application for admission (as appropriate).
2. Official academic transcripts from each secondary and post-secondary institution attended. If students are currently enrolled in a college or university, they should send official partial transcripts. Transcripts in a language other than English must have official translations attached to the official transcripts. All transcripts become the property of Northwest and cannot be released. Syllabi (course descriptions) must be submitted for all courses taken at universities outside the United States. Transcripts will not be evaluated until syllabi have been received. Transcripts from Nepal must be certified by USEF-Nepal.
3. Application fee of \$50.00 in U.S. currency. This is a non-refundable fee.
4. Students entering Northwest are required to have a reading, writing, and conversational knowledge of the English language. If the student's native language is not English, he or she must submit a score report from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Pearson Test of English Academic (PTE Academic). Undergraduates should have a minimum score of 500 on the paper-based TOEFL, a 61 on the Internet-based TOEFL, a 5.5 on the Academic IELTS or a 44 on the PTE Academic. Graduates should have a minimum score of 550 on the paper-based TOEFL, a 79 on the Internet-based TOEFL, a 6.5 on the Academic IELTS or a 53 on the PTE Academic. English proficiency scores must be less than two years old at the time the student starts classes. Some freshman applicants may be required to provide TOEFL scores as their only option to verify English proficiency.
5. Copy of passport.
6. Statement of support (form provided by Northwest) from family member or sponsor stating amount and years of support.
7. Bank statement verifying that the sponsor has the balance provided on the statement of support. Information may be submitted electronically and should contain the available funds, account holder's name and number, date of issue, and bear a bank office signature.
8. If available, official SAT scores will be used to determine scholarship eligibility. Some freshman applicants may be required to provide SAT scores for admission review.

Waiver of the English Proficiency Requirement

The following circumstances will waive the requirement of a score report from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Pearson Test of English Academic (PTE Academic):

1. If the applicant's native language is English.
2. If the applicant has taken the ACT and received a composite score of 21 or the SAT (Critical Reading + Mathematics) with a score of 980.
3. If the applicant graduates and receives a high school diploma in the United States. The transcript will be reviewed and if the student has low grades and/or a low ACT/SAT, ESL could be required.
4. If the applicant received an undergraduate degree from an accredited U.S. institution or a country where the native language is English.

- If the applicant is transferring to Northwest from another regionally-accredited institution in the United States and has completed the equivalent of English Composition I (10-111) and English Composition II (10-112) with grades of C or better.

International Application Deadlines

All documentation noted above must be received by the Office of Admissions prior to the deadline noted; applications not complete by the deadline will be considered for the next admission session.

Fall Trimester	July 1
Spring Trimester	November 1
Summer Trimester	April 1

I-20 Form

A Statement of Support completed and signed by the student's family, sponsor, or government and a certified bank statement are needed before an I-20 can be issued. Student visas should be obtained before entering the United States, as converting from a tourist visa to a student visa is not assured.

An I-20 Form will be prepared for the applicant after the application and all necessary information have been received and the Office of Admissions has taken favorable action on the application. The I-20 Form cannot be prepared before the application is officially reviewed.

Freshman International Student Admissions

Freshman admission for international students is evaluated on an individual basis. Admission is offered to those students who possess academic qualifications equivalent to those required for domestic first-time freshmen. Consideration is given to the courses taken and grades received in secondary school, as well as to results of school leaving examinations and certificates. The integrity of the student's native educational system is respected in regard to the university entrance requirements in the native country; students not eligible for university admission in their native country will not likely be granted admission to Northwest.

For comparison purposes, admission requirements for domestic first-time freshmen must include the following:

- A minimum high school grade point average of 2.00 or "C" average and;
- A college-preparatory curriculum in secondary school, including courses in mathematics, science, language and social studies.

International Transfer Students

In addition to items one through eight listed previously, undergraduate and graduate international students who are transferring to Northwest from another American university should also submit a Transfer Form to the Northwest Office of Admissions. To be admitted to Northwest as a transfer student, students must also meet all the standards and requirements of American transfer students (p. 19). Students who have less than 24 transfer hours completed will be considered for admission on the basis of freshman admission requirements as well as transfer admission requirements.

Special Admissions

Non-Degree-Seeking Students

Individuals who do not wish to pursue a degree may apply and be accepted as undergraduate non-degree-seeking students. The student must be 18 years of age or older. Proof of high school graduation is required for non-degree status; however, students who have graduated from high school within the last two years cannot be admitted as non-degree students but

instead must meet regular admission standards as outlined in Admission to Undergraduate Study (p. 13). The ACT exam is recommended for advisement purposes. Students under academic and/or disciplinary suspension from this or any other institution may not be admitted in this category. A transfer student must be eligible to be admitted as a degree-seeking student. Non-degree seeking students are limited to an enrollment of six hours per trimester and can only receive 18 semester hours credit as a non-degree-seeking student. To continue taking coursework beyond the 18-hour limit, a student will have to reapply as a degree-seeking student and must meet regular admission requirements. Non-degree-seeking students are not eligible to receive federal student financial aid.

Re-Admission of Former Students

Undergraduate students who have been absent from Northwest for one trimester or longer (not including summer) must re-apply for admission. Students who have attended other universities since attending Northwest must submit a complete and official transcript of that college credit with their application for re-admission; coursework completed since attending Northwest must be at least “C” level work to qualify for re-admission. Students returning on probation or after being suspended must also provide an essay for re-admission. Contact the Northwest Office of Admissions for further information.

Visiting Students

A student may be admitted to Northwest through certification as a visiting student from another accredited college or university. The visiting student is required to present certification from an authorized person of the other institution (i.e., registrar, director of admissions, vice president, etc.) stating that the student is in good standing at the other institution. Contact the Northwest Office of Admissions for further information.

Adult Students

Anyone who is 24 years of age or older at the time of application will be considered an Adult Student. Admission for Adult Students will be based on their high school GPA or GED/HiSET score, and a personal essay. If available, ACT/SAT scores will be used for scholarship purposes and for course placement.

GED/HISET

Based on the 2014 GED score standards, a student may be considered for admission after receiving an equivalency certification meeting the following criteria: a total score of at least 680 with no subscore below 150. Scores from the HiSET exam, the high school equivalency test adopted by Missouri in 2014, are also accepted with a score of 75 or better. ACT/SAT is required unless applicant is an adult student. An official, partial high school transcript must also be submitted.

Early Release

High school students who have satisfied all the credit requirements for a diploma at their high school before completing eight semesters at their high school may be considered for early release admission to Northwest. In order to satisfy high school attendance requirements, a letter of early release from the Board of Education governing the high school should be on file in the Northwest Office of Admissions. The University is not responsible for monitoring attendance or academic performance for high school purposes. Students are limited to enrolling in lower-level courses.

Dual Credit for High School Students in Northwest Courses

High school students who have not yet graduated from high school may be enrolled at Northwest in an on-campus course, online course, or a course taught at the local high school while still attending high school. Students must submit a Dual Credit application for admission, along with an official high school transcript. In addition, the student must submit a letter of recommendation and release from his or her high school counselor or principal for each trimester enrolled when enrolling in an on-campus course.

To be eligible to enroll in an on-campus or off-campus course for college credit, juniors or seniors must have an ACT composite score of 21 or higher and have at least a 2.50 grade point average on a scale of 4.00 OR a Combined Percentile Index of 100 or higher and have at least a 3.00 grade point average on a scale of 4.00. In addition, placement exams and specific ACT sub-scores are required for select courses. Freshmen and sophomores must score at the 90th percentile or above on the ACT or SAT to be eligible to enroll and have at least a 3.00 grade point average on a scale of 4.00. If dual credit is in a music activity, the student is also required to obtain the approval of the appropriate high school and University instructor.

Northwest Students at Conception Seminary College

In order to extend the range of course options, Northwest seniors and juniors have the opportunity to enroll for credit in certain courses at nearby Conception Seminary College in Conception, Missouri. The agreement is reciprocal: Conception Seminary College students are able to cross-register for Northwest courses. Students are eligible if they are in good standing at Northwest. The first nine semester hours earned at Conception Seminary College will be considered residence credit at Northwest.

Graduate Study

Northwest offers graduate programs for master's degrees, graduate certificates and specialist in education. Requirements are specifically stated in the Graduate Catalog.

Dual Enrollment of Northwest Seniors

Northwest seniors who have less than 30 semester hours to complete their baccalaureate degrees, and who need less than a full enrollment of required undergraduate courses in any term of their senior year, may petition to enroll for graduate level courses. Students must have at least a cumulative 2.50 GPA.

To enroll, complete the Petition for Dual Enrollment and submit to the Graduate Office at least one trimester prior to the anticipated dual enrollment. The maximum academic load for dually-enrolled students is 16 semester hours in a trimester with no more than seven semester hours in a four-week summer session. The student may not continue past 15 graduate hours unless he or she has met the requirements for admission and candidacy in the graduate program.

Course Numbering

The 600-level courses are reserved for graduate students only, while 500-level courses are available for either graduate or undergraduate credit. The 700-level courses are reserved for students pursuing a Specialist in Education degree. The 800-level courses are reserved for those students pursuing the Ed.D. in Leadership.

For More Information

For further information on any aspect of the Northwest graduate program, consult the current *Graduate Catalog*, available online only at <http://nwmissouri.smartcatalogiq.com/en/2015-2017/Graduate-Catalog>.

Fees and Costs

General Information

Statements concerning fees are announcements and not to be regarded as offers to contract. The University reserves the right to change fees and other charges at any time by published notice before the opening of any trimester or session.

Courses taken for audit or courses taken for reduced credit or no credit will be counted at their normal credit value in computing the amount of fees to be paid.

It is the student's responsibility to pay fees and any other financial obligations to the University as they become due. The non-payment of any financial obligation may result in the administrative withdrawal of the student or in legal action (at the University's option). I agree that if my financial obligations are not paid when due, and the University should retain an attorney or collection agency for the collection, I agree to pay all costs of collection, including reasonable interest, reasonable attorney's fees (even if a lawsuit is filed) and reasonable collection agency fees. I understand that the fees assessed by a collection agency will be a percentage of the financial obligation to be collected. Records, future enrollment and charging privileges will be withheld for failure to meet payment deadlines. Delinquent accounts may be referred to external collection agencies and/or may be reported to national credit bureaus. The student is obligated to pay all costs of collection including collection fees and attorney's fees.

If the University removes a student from the class rolls for any reason, charges will be reduced according to the schedules in Refund/Reduction in Charge Schedule (p. 29). Such removal will not forgive any amounts due to the University, and records and enrollment will be withheld until all obligations are cleared. See "Transcript/Diploma/Enrollment Hold (p. 48)."

The appeal body for most financial matters is the Student Financial Appeals Committee. Forms are available online at www.nwmissouri.edu/bursar/forms.htm.

Residency for Fee Purposes

A student's residency status for fee purposes is determined at the time of admission according to state policy (Code of State Regulations 6CSR10-3.010). Copies of the residency policy and petitions for change of residency status are available on request from the Office of Admissions. Petitions must be submitted to the Office of Admissions prior to the beginning of the trimester for which the change is desired. A student who qualifies for Missouri residency maintains that residency as long as he/she is continuously enrolled.

The nonresident portion of the student fee may be credited in an amount equal to the actual Missouri income tax paid by the nonresident student or custodial parent for the previous calendar year. Students covered by this policy remain classified as nonresidents and must submit the Missouri income tax return to the Bursar/Cashiering Office to receive this credit.

Tax Credits

Education tax credits may be available to students or parents. Contact your tax preparer for more information. Tax credit links are available through the Bursar/Cashiering Office website (www.nwmissouri.edu/bursar/taxlinks.htm).

Billing Policy – Email

The first bill for each trimester will be mailed to the student's permanent address. This is subject to change at the University's discretion. All subsequent bills will be emailed to the student's University email account. If the student is not responsible for payment, an additional email can be sent. The student must complete the second billing email address in their CatPAWS account from the Personal Information Tab.

Authorizations

Students can authorize online access to parents or other third party individuals. There are two separate authorizations to be completed. One is for account information and online payment. The second allows verbal information to authorized individuals and online access to grades and financial assistance.

1. Authorize online access to view student account and pay bills:
 - a. Students log into CatPAWS, go to Account Tab, then Account/Payment Center
 - b. Click Authorized users tab and complete sign up
2. Authorize Release of Information—concerning grades, financial assistance and billing:
 - a. Log into CatPAWS
 - b. Click Student tab
 - c. Click Authorize Release of Information and complete form

Tuition and Fees (per credit hour)

See Bursar/Cashiering, www.nwmissouri.edu/bursar/tuition.htm

Fees for Special Programs

See Bursar/Cashiering, www.nwmissouri.edu/bursar/specialprograms.htm.

Room and Board

See Bursar/Cashiering, www.nwmissouri.edu/bursar/roomcosts.htm.

Housing Contract

A reservation and room prepayment of \$150 must accompany all applications for Housing. This payment is refundable if the student cancels his or her contract by June 1.

Miscellaneous Fees

A list of miscellaneous fees is available at <http://www.nwmissouri.edu/Bursar/PDF/MiscFees1516.pdf>.

Senior Citizen Fee Waiver

Standard tuition (incidental and designated fees) for individuals 65 and older are waived. Individuals under this policy must pay any other fees that may be required. Enrollment in a class for this group is contingent on available space.

University Installment Payment Plan

If the student's account cannot be paid in full, Northwest offers an installment plan. If a student chooses to pay by installment, a finance charge will be assessed on the remaining unpaid billed amount. Payment due dates for the fall are the 15th of August, September, October and November. Spring payment dates are the 15th of January, February, March and April.

Refund/Reduction in Charge Schedule

Refund/Reduction	Full Trimester Course	Block Course	Single Summer Session Course
100% reduction	1 week	3 days	1 day
75% reduction	1 week	2 days	1 day
50% reduction	1 week	3 days	1 day
25%	1 week	2 days	1 day

Other time frames prorated accordingly.

Note: Cannot swap dropped courses. All added courses are charged 100%.

1. Refunds are based on FULL payment of all fees assessed.
2. Payments made by financial aid may be refunded back to the program.
3. Refunds/reductions in charge are based on initial enrollment.
4. Refunds are not made if under \$1.00 (unless requested at the Bursar/Cashiering Office).
5. In withdrawal situations, Tower charges are reversed through October 25.
6. Refunds for off-schedule classes are prorated in line with the published schedule based on number of class meetings.

Determination of Return of Federal Aid

1. Percentage of payment period (first day of class through last day of final examinations) completed is the number of calendar days the student remained enrolled divided by the total number of calendar days in the payment period.
2. Percentage of Title IV funds eligible for disbursement earned is the percentage of the payment period completed through the 60% point and is 100% thereafter.
3. Percentage unearned (to be returned to Title IV programs) is 100% minus the percentage earned.
4. The return of the Title IV funds will be allocated in the following order up to amounts received from each program: Unsubsidized Direct Loans, Subsidized Direct Loans, Federal Perkins Loans, Direct PLUS Loans, Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG), TEACH Grants, Iraq and Afghanistan Service Grants (IASG).
5. The University will return up to the unearned percentage multiplied by the total institutional charges. The student is responsible for any remainder.
6. Amounts to be returned by the student to loan programs may be paid according to the terms of the promissory note. Amounts to be returned by the student to grant programs are reduced by 50%.

Examples of the application of this policy may be obtained by contacting the Office of Scholarships and Financial Assistance.

Calculated refund amounts due the students will be automatically credited to any unpaid charges.

Financial Assistance

Available Aid

Northwest awards and/or administers many types of financial aid from federal, state, University, and private sources. Financial aid can be divided into four general categories:

- Grants, which are financial gifts usually based on financial need.
- Scholarships, which are financial gifts usually based on academic, athletic, or other high achievement.
- Loans, which can be from the University or the Department of Education.
- Employment, which can be either on- or off-campus. If the student is employed on-campus, he or she may be “regularly” employed, or employed as “work-study.”

Grants and scholarships are gifts and usually do not have to be repaid. Loans must be repaid with interest at a future date, which usually commences six months after the student ceases to be enrolled as at least a half-time student. For information, contact the Office of Scholarships and Financial Assistance, (660) 562-1363.

Financial aid programs assume that the primary responsibility for educational and living expenses rests with the students and/or parents to the extent they are able to provide assistance. Most of Northwest’s aid is designed to supplement family resources. In addition to parental contributions and student savings, other sources of non-University funding to be considered are monetary service and religious organization awards, and high school awards.

Maximum Time Frame and Credit Hours

Undergraduate and graduate students are eligible to apply for aid for up to one-and-one-half times the normal program length. The normal program length for an undergraduate degree is 124 credit hours; therefore undergraduates are eligible to apply for aid for up to 186 attempted trimester credit hours, including transfer credit. Master's level students are eligible to apply for aid for up to 67 attempted trimester credit hours and Specialist students are eligible to apply for aid for up to 96 attempted trimester credit hours.

Students who have attempted the maximum number of credit hours are ineligible for any type of federal financial aid. A change of major does not extend the number of credit hours that may be attempted.

Application Procedures

Students should contact the Northwest Office of Scholarships and Financial Assistance on or after January 3 for information and application procedures for federal student financial aid. Some of the information required on the Free Application for Federal Student Aid (FAFSA) must be taken from the student’s and/or parents’ federal income tax forms. Northwest holds all financial information in strictest confidence and uses the information only to determine eligibility for federal aid. See the “Student Records” (p. 51) section of this catalog for more information on records privacy.

Deadlines

For maximum consideration, applications and required documentation should be submitted at the earliest possible date after January 3 for the following academic year. Some federal programs have limited funds that will be awarded to the earliest pool of applicants.

Award Processing

The Office of Scholarships and Financial Assistance will attempt to meet all students' financial need pending the availability of funds. Federal financial assistance will continue to be awarded until all funds are committed or until the specified deadlines, whichever occurs first.

The priority order for awarding federal financial assistance is as follows:

- Federal Supplemental Educational Opportunity Grant (must be Pell eligible)
- Federal College Work Study Program
- Federal Direct Loan (subsidized)
- Federal Direct Loan (unsubsidized)

Award Notification

The Office of Scholarships and Financial Assistance will notify students of the types and amounts of federal financial aid for which they qualify. Students may accept all or part of their awards. Offers of financial aid are void if award notifications and all associated promissory notes, contracts, and required counseling sessions are not properly completed and returned.

Satisfactory Academic Progress

To be eligible to receive federal student aid, students must be maintaining satisfactory academic progress toward a degree or certificate. Federal law requires that the University monitor both qualitative and quantitative academic progress of its students.

Quantitative progress requires students to successfully complete a certain percentage of attempted courses. Qualitative progress requires students to earn predetermined Northwest and cumulative grade point averages. Students must be in compliance with the University's written standards for both qualitative and quantitative progress to maintain eligibility for any type of federal financial aid.

The University will attempt to notify students by email when they have not maintained satisfactory academic progress. Students are responsible for being aware of the satisfactory academic progress policies and will remain ineligible even if the University's notification is not received.

When a student does not meet the qualitative or quantitative academic progress standard they will be placed on Financial Aid Warning for the next term of attendance. Students remain eligible to receive aid during the warning period and their record will be reviewed for compliance again following their next term of enrollment.

A student who is placed on Financial Aid Warning and does not meet the qualitative and quantitative academic progress standards at the conclusion of the warning period will be placed on Financial Aid Suspension. This suspension status results in the loss of eligibility for all types of financial aid until all SAP standards are met.

Quantitative Progress

Quantitative progress requires students to successfully complete a certain percentage of attempted courses. Final quantitative progress will be determined at the end of each trimester. To be considered making satisfactory academic progress, undergraduate and graduate students must pass at least 67% of the cumulative credit hours which they have attempted.

A credit completion rate is the ratio of a student's total credits successfully completed to the student's total attempted credits. Attempted credits include successfully completed courses, courses dropped after the drop/add period, failed courses, repeated courses, course withdrawals and transfer credits that have been accepted by the University.

Course Audits

Students are not eligible to receive federal financial assistance for courses that have been audited. Courses audited will not be included when determining the number of credit hours a student has attempted or completed.

Incomplete Grades

Courses in which students receive incomplete grades will be counted as hours attempted but will not be counted as successfully completed until the final passing grade is officially posted to the student's permanent record.

Qualitative Progress

Qualitative academic progress will be determined at the end of each trimester. To be considered making satisfactory qualitative progress, undergraduate students must have the following minimum Northwest cumulative grade point averages:

Freshman (0-29 hours earned)	1.75
Sophomore (30-59 hours earned)	2.00
Junior (60-89 hours earned)	2.00
Senior (90 or more hours earned)	2.00

To be considered making satisfactory qualitative progress, graduate students must have the following minimum Northwest cumulative grade point averages:

Master's	3.00
Specialist	3.25

Appeals Process

A student who fails to make satisfactory academic progress may appeal, in writing, the loss of eligibility. Students should provide documentation of circumstances that were clearly beyond their control. Types of documentation may include doctor and hospital reports, legal documents, and written confirmation from a parent or other official sources as deemed appropriate by the Financial Review Committee.

Written appeals and all supporting documentation must be submitted to the Office of Scholarships and Financial Assistance. The Financial Review Committee will review the written appeal, supporting documentation and notify the student in writing of the appeal decision within 14 days from the date received.

To appeal the decision of the Financial Review Committee, the student must submit a written appeal and all supporting documentation to the Provost Office and arrange to meet with the Provost or his/her appointee. The decision of the Provost is final.

Failure to Earn a Passing Grade

If a student who began attendance and has not officially withdrawn fails to earn a passing grade in at least one enrolled course for a term, the institution must assume, for Title IV purposes, that the student has unofficially withdrawn, unless the institution can document that the student completed the term. If it cannot be documented that the student completed the term then an unofficial withdrawal calculation will be performed and depending on the proration of the aid, a balance may be owed on the student account.

Financial Assistance Programs

The following types of student financial assistance are available to eligible Northwest undergraduate students:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant

- Federal Work Study Program
- Federal Perkins Loan
- Federal Direct Loan (subsidized)
- Federal Direct Loan (unsubsidized)
- Federal Parents Loan for Undergraduate Students (PLUS)
- Federal TEACH Grant
- Access Missouri Grant
- Institutional Employment
- State, Institutional, and Private Scholarships

The following types of financial assistance are available to eligible Northwest **graduate students**:

- Federal Work Study Program
- Federal Perkins Loan
- Federal Direct Loan (subsidized)
- Federal Direct Loan (unsubsidized)
- Federal TEACH Grant
- Institutional Employment
- Private Scholarships
- Graduate Assistantships

Withdrawal from the University

If a student withdraws from the University while receiving federal financial assistance, the hours of enrollment will be counted as attempted but not passed. The student must pass the required percentage of cumulative hours attempted to be considered meeting satisfactory academic progress requirements.

For a student who withdraws, the financial assistance award received will be prorated and the unused portion of the financial assistance award will be refunded to the programs involved. Depending on the proration of the aid, a balance may be owed on the student account.

Summer

To determine eligibility for financial assistance during the summer trimester:

1. Students must complete a summer financial assistance application and submit it to the Office of Scholarships and Financial Assistance with a copy of their summer course schedule.
2. A Free Application for Federal Student Aid (FAFSA) must be completed for the current academic year.
3. Student must be enrolled at least half-time (6 hours for undergraduate level and 5 hours for graduate level) to receive federal aid.

4. Students receiving Federal Direct Loans who drop below half-time and receive a 100% refund of tuition will be treated as a cancellation and loans will be removed from their summer account.
5. If a student is enrolled full-time (12 hours) and eligible to receive any of the academic renewal scholarships, they will be automatically applied.

Online Aid Applicants

Students must be degree or certificate seeking at Northwest and be enrolled at least half-time through Northwest before federal aid will be processed except for those who qualify for Federal Pell Grants. Students must be enrolled in a minimum of 12 credit hours at Northwest to receive Northwest scholarships or to receive consideration for State of Missouri assistance programs.

- Students choosing to enroll in courses from other institutions concurrently with their Northwest enrollment must file a completed financial aid consortium agreement for each term with the Office of Scholarships and Financial Assistance.
- Consortium agreements are for courses that are not available at Northwest and are necessary to complete degree requirements.
- Each student is responsible for initiating consortium agreements for hours taken each term at institutions other than Northwest.
- Students must have grades from classes covered by a consortium agreement transferred back to Northwest before aid for future terms will be released.
- Contact the Office of Scholarships and Financial Assistance for details.

Taxation of Financial Assistance

Scholarships and fellowships are tax exempt only if used for tuition and fees, books, supplies, and equipment required for the course of study. Scholarship recipients must be candidates for degrees.

Scholarships and fellowships are taxable if designated for purposes other than tuition and related expenses or if attributable to service performed.

Fee reductions for employee dependent graduate students must be reported as taxable income for the employee. For specific information, contact a tax preparation professional.

Veterans' Affairs

The University maintains an Office of Veterans' Affairs to assist veterans and eligible persons in all phases of certification and retention of educational benefits. The Veterans' Office, located in the Office of Scholarships and Financial Assistance, also assists veterans and eligible persons in receiving payment for tutorial assistance, veterans' work-study and giving advice and counsel.

Northwest students receiving benefits from the Veterans' Administration will meet VA conditions for satisfactorily pursuing a program of study by meeting the University's general catalog requirements. However, a few VA requirements are more stringent than the general catalog requirements.

Northwest Missouri State University is in compliance with the requirements of PL 113-146 the **Veteran Access, Choice and Accountability Act of 2014, Section 702**. Northwest ensures in-state tuition rates for eligible uniformed services veterans and their qualified dependents covered under Section 702.

Regular Attendance

VA students must attend all classes according to each instructor's attendance policies. VA benefits will be terminated as of the last date of attendance reported by the instructor for

students with unsatisfactory attendance. All VA students using Chapter 30, 1607, and 1606 must verify their attendance monthly, on or after the last day of each month by using the Web Automated Verification of Enrollment (WAVE) or calling 877-823-2378.

Unsatisfactory Progress

The University is required to notify the Veterans' Administration that a student did not make satisfactory progress if the student:

a) receives a non-punitive grade in any course; b) fails or withdraws from all classes; or c) is suspended by the University.

Education benefits will be terminated for students who fail to make VA satisfactory progress.

Classes Not Completed

The Veterans' Administration may require students to repay benefits received for classes dropped. All VA students must report changes in enrollment status, including drop/add/withdrawals to the school certifying official. The VA will only pay for courses that lead to a standard degree or certificate. VA benefits will not be paid for courses in which students have already earned a satisfactory grade, unless the university states that a higher grade is necessary for completion of the curriculum. VA benefits will not be paid for courses that a student elects to audit.

Delayed/Incomplete Grades

Delayed/incomplete grades must be removed by the end of the next trimester or they will be changed to grades of "F."

VA students should contact the Office of Veterans' Affairs before deciding to repeat a course, withdraw from the University, drop a class, take a delayed grade or interrupt class attendance to assure compliance with VA regulations.

Contact Information

For information and assistance in completing and maintaining the proper documents to receive VA benefits, a student should contact the Veterans School Certifying Official by calling 660-562-1141 or by emailing mstoner@nwmissouri.edu.

Vocational Rehabilitation

All students receiving vocational funding from the State Department of Rehabilitation or Veterans' Administration should contact the Office of Scholarships and Financial Assistance for certification and counseling assistance.

Registration

Academic Advisement

Academic advisement is regarded by the University as an extension of the teaching function, and therefore it is an important responsibility of the faculty. Academic advisors explain the University requirements and assist individual students in building programs which satisfy these requirements. Also, the advisors communicate to the students, particularly freshmen, the meaning of higher education and its significance to the student. However, students are expected to read the regulations in the University catalog and conform to them. The student is responsible for knowing the regulations and policies and for meeting the requirements for a degree or certificate.

Undeclared (Deciding) Major and/or Degree Objective

The student who is undecided about a major or pre-professional interest, or perhaps about both, should look upon the freshman year, and perhaps also the sophomore year, as exploratory.

New students who have not yet made a decision on what major to pursue are asked to declare a Meta-Major, which is a set of coursework designed to get the student to an academic goal in the fastest and most efficient way. The four Meta-Majors to choose from include: Business, Education, Sciences, and University Studies. If one of the first three areas does not fit the student, selecting the University Studies Meta-Major provides additional time for exploration and deliberation on a major while earning Northwest Core credits. All students are required to complete 48 hours of Northwest Core coursework, so the Meta-Major assists in providing the framework needed to make a final decision.

General Registration

A registration period is set aside, with published dates and time schedules, preceding the beginning of courses for each trimester or session. Registration instructions are available on the Registrar's website. Off-campus and off-schedule courses have specific registration deadlines which may differ from the regular registration periods.

Preregistration

The University provides a period for currently enrolled students to preregister for classes during regular terms. Before the first day of class, each preregistered student must verify registration by supplying information in regard to local address, emergency contacts, and other pertinent data.

A student who has preregistered and does not return for the term must notify the Office of the Registrar in writing before the date of general registration so that his or her enrollment can be cancelled (email: registrar@nwmissouri.edu). Students who fail to meet the deadline must complete withdrawal as outlined in Adding, Dropping, and Withdrawals (p. 47) and are subject to fees.

Students receiving veterans' benefits should consult with the coordinator of Veterans' Affairs prior to withdrawal.

Policies and Regulations

Academic Policies

Academic Load

The normal load for an undergraduate student is 14-18 academic hours per trimester.

Before a student can petition for excess credit, he or she must have completed one trimester of full-time academic work at Northwest. Petition forms are available in the Office of the Registrar.

A student who has a Northwest and overall GPA of 3.00 or above may take no more than 21 academic hours during any trimester. A student who has a Northwest and overall GPA of 2.00–2.99 may take no more than 18 academic hours in any trimester. A student who has a Northwest and/or overall GPA below 2.00 may take no more than 16 academic hours in any trimester. Petitions forms are available in the Office of the Registrar, and online at www.nwmissouri.edu/registrar.

Courses taken for audit are included in the academic load.

There is a limit of 6 activity hours per trimester. Combined academic and activity hours cannot exceed 24 hours in a trimester.

For honors and certificates of attendance, an undergraduate student is considered to be full-time with 12 academic hours in any trimester.

Students must petition for exceptions to the above policies. Petition forms are available in the Office of the Registrar and online at www.nwmissouri.edu/registrar.

Attendance

Students are expected to attend all classes as specified in the course syllabi for each course. However, specific attendance policies may vary from instructor to instructor. Each instructor will clarify the attendance policy at the beginning of each course. It is the responsibility of the student to promptly notify his or her instructor when unable to attend class. Students receiving veterans' benefits should consult with the coordinator of Veterans' Affairs for the additional attendance requirements.

A student may make up class work without penalty if engaged in University activities endorsed by the Provost or prevented from attending by circumstances considered adequately extenuating by the course instructor.

After the add period until the end of the drop period, an instructor may request the Office of the Registrar to delete a student from the class roster due to non-attendance.

University Seminar

University Seminar is an academic course designed to introduce students to the Northwest community and collegiate environment. Each student develops a personal plan to understand and assume responsibility for their own university experience. Course content includes adjustment to University life, skills necessary to make the most of the university experience, General Education Requirements, academic programs and advisement, career exploration, campus and community resources, and taking advantage of cultural and extracurricular events.

Requirements:

1. University Seminar is an entry-level course requirement, as well as a Northwest Core Requirement for all two- and four-year programs.
2. All first-time, full-time (12 semester hours) freshmen entering the University are required to enroll in University Seminar in their first trimester of enrollment. If the student does not pass the course, it must be retaken in successive terms until passed.
3. Students transferring or returning to Northwest with less than 15 semester hours are required to take University Seminar.
4. Non-traditional (those out of high school more than five years) degree-seeking students are not exempted from University Seminar. These students may attend special sections designed for non-traditional students or they may discuss alternatives with their University Seminar instructor regarding the parts of the course which are deemed inappropriate because of their personal status.
5. A student who is dually-enrolled in high school prior to entering Northwest is not exempt. The student is still required to take University Seminar.
6. Missouri Academy students who have successfully completed MOAC 81102 and MOAC 81103 and continue on to pursue undergraduate degrees at Northwest will have the University Seminar requirement waived.

Petitions for exceptions to the above requirements are considered by the Curriculum and Degree Requirements Committee of the Faculty Senate. Petition forms are available in the Office of the Registrar and on the Northwest website at <http://www.nwmissouri.edu/registrar/PDF/CurriculumDegreeReqs.pdf>

Academic Honesty

Academic honesty is essential to the integrity of the mission and success of the University and is expected of all students. It is the responsibility of every student to avoid dishonest practices. There are eight broad areas of academic dishonesty: (1) obtaining unauthorized aid or information; (2) giving unauthorized aid or information; (3) committing plagiarism from written, electronic, or internet sources; (4) misrepresenting facts or data; (5) offering bribes; (6) using library resources unethically; (7) using computer resources unethically; and (8) knowingly assisting in any of the above practices.

A charge of academic dishonesty can be brought against a student by an instructor, a staff member, or another student in consultation with an instructor. The instructor or staff member will consult with the chairperson/director who may then notify the Registrar to put an academic hold on the course to prevent the student from dropping the class. The instructor or staff member then will notify the student in writing of the formal charge. If the instructor involved is a chairperson or director, the instructor will consult with the Associate Provost or Vice Provost before moving forward with the process. While in standard cases the instructor will give the student an automatic "F" in the course, the instructor, in consultation with the chair, director, or Associate Provost, has the discretion to alter sanctions as appropriate. If the student chooses to appeal the charge of the instructor, the student may stay in the class until the appeal process is completed. All cases of academic dishonesty will be reported by the chairperson/director to the Associate Provost or Vice Provost, and to the Provost.

Once the charge is made, the student has the right to appeal. The student must make the appeal in writing to the department chairperson/school director within 10 academic days of receiving the charge. The chairperson/director (or Associate Provost if the case involves a chairperson, or Vice Provost if the case involves a director) will then appoint a committee of at least three faculty or staff members from the department/school who are not directly involved in the case to consider the appeal. If the appeal fails, the student may then petition the Academic Appeals Committee. The student must make the appeal in writing to the Academic Appeals Committee, through the Office of the University Registrar, within 10 academic days of receiving formal notification from the departmental committee. A charge that is successfully appealed will be reported by the appropriate committee to the chairperson/director of the

appropriate department/school, to the Associate Provost or Vice Provost, and to the Provost so that the charge that has already been reported will be expunged from the record.

During the appeals process the departmental/school committee or the Academic Appeals Committee may alter the sanctions. In standard cases, the instructor's sanction will stand and the student will be prohibited from further attending the course. The second instance will result in immediate dismissal from the University.

Use of Calculators

Calculators may be permitted in some courses. If a calculator or programmable calculator is not to be used in a course, the faculty member is to include a clear statement on the course syllabus such as, "Calculators are not to be used during tests for this class" or "All memories in programmable calculators must be empty during tests for this class." It will be considered cheating in all classes when students violate the above statements.

Audit

The University will admit a limited number of auditors to classes. The instructor will decide the number permitted to audit. Auditors will enroll for the course, pay the same fees as other students and enjoy all the privileges of the University. Forms are available in the Office of the Registrar.

The auditing student is expected to attend regularly and is to determine from the instructor the amount of work expected. If an auditing student does not meet the criteria for the course, the instructor may drop the student from the class roll during the trimester and the audit will not appear on the student's record.

Students who initially enroll in a course for credit may be permitted to change their enrollment to audit or remove from audit any time within the first three weeks of a trimester, eight days of a six- or eight-week course, five days of a four-week course and two days of any shorter length course.

A course may be audited before it is taken for academic credit or before a student attempts a departmental test-out. A course may also be audited after it is taken for credit.

Students must petition the Committee on Admissions and Advanced Standing for exceptions to the above policies. Petition forms are available in the Office of the Registrar and on the Northwest website.

No Credit

The University makes available a procedure whereby persons may enroll in undergraduate courses for no credit on a space-available basis. Individuals admitted under this procedure must declare, at the time of enrollment, that they do not wish credit for the course. A course taken for no credit cannot be converted to credit except by repeating the course for credit. Students may not change status from credit to no credit.

Individuals enrolling for no credit are not required to go through the formal admissions process and are not required to submit transcripts of past academic work. Students presently under suspension from Northwest or any other institution of higher education are not eligible for enrollment for no credit. Fees for no credit courses are at the same rate as credit or audit courses. 600-level courses and above are not available on a no-credit basis.

Correspondence and Extension Courses

Northwest does not offer courses by correspondence or extension; however, it does maintain the following policies in regard to credit earned in this manner.

No student will be permitted to be enrolled in correspondence or extension courses while being regularly enrolled at Northwest without prior approval of the major department. A

course completed or attempted in residence may not be repeated by correspondence or extension for the purpose of raising a grade or removing a failure.

No student will be permitted to apply coursework in correspondence or extension toward their degree after a total of 30 hours has been completed in correspondence or extension courses.

Classification of Students

Students are classified at the opening of the regular school year in the fall and thereafter at the opening of the spring and summer trimesters as follows:

Freshman: less than 30 semester hours of academic credit.

Sophomore: less than 60 semester hours but more than 29 hours of academic credit.

Junior: less than 90 semester hours but more than 59 hours of academic credit

Senior: 90 or more semester hours of academic credit but has not earned a bachelor's degree.

Postbaccalaureate: a student who holds a bachelor's degree and is enrolled for undergraduate courses; a student pursuing another bachelor's degree.

Graduate Student: a student who holds a bachelor's degree and has been accepted for a course of study leading to a master's degree or graduate-level study.

Credit System

Northwest uses the student credit hour, as defined by the US Department of Education, as the measure for earning credit. At a minimum, one student credit hour equates to the amount of work, completed at a satisfactory level, equivalent to three clock hours per week for approximately 15 weeks for every semester hour of credit, or the equivalent amount of work over a different period of time.

These three hours may be comprised of one hour spent engaged in direct faculty instruction (face-to-face, online, or ITV) and at least two hours working outside of class, two or more hours per week in a laboratory setting with a minimum of one hour of work outside of class, or similar minimum expectations in other academic activities such as internships, practica, studio work, and other academic work leading to the award of credit hours.

The number of credit hours for each course is indicated in the departmental statements, in this catalog, and on the Northwest website by accessing the CatPAWS "Class Schedule" links.

Course Numbering

Courses are numbered according to the following plan:

001 to 099:	Non-College Parallel: will not satisfy graduation requirements
100 to 299:	Lower Division
300 to 499:	Upper Division
500 to 599:	Upper Division/Graduate
600 to 699:	Graduate Only
700 to 799:	Education Specialist
800 to 899:	Cooperative Ed.D. Program

Grading System

The following marks are used in evaluating the work of students:

A:	superior	P:	pass on pass/fail system
B:	above average	AT:	audit
C:	average	DL:	delayed grade (prior to Fall 2004)

D:	below average	I:	incomplete
F:	failure	IP:	in progress
W:	official withdrawal from University	NC:	no credit

Incomplete Grade

The incomplete grade is initiated with the course instructor. This grade indicates that due to unusual circumstances a small portion of a course has not been completed. In each instance when an incomplete grade is assigned, the instructor of the course shall also submit an incomplete grade form indicating what the student must do to complete the course. The form is turned in to the Office of the Registrar at the final grading period for the course. The student must then complete the requirements for the course by the end of his or her next fall or spring term of enrollment or the grade becomes an “F” on the student’s permanent grade record. A student wishing to submit makeup work to remove an incomplete grade must make arrangements with the instructor two weeks prior to the final grade due date. Faculty members are not obligated to accept and evaluate make-up work in order to submit a grade after the above time periods.

A baccalaureate degree will not be awarded with an incomplete grade remaining on the student record by the end of the term of graduation. Upon removal of the incomplete grade, the student will then be eligible to apply for graduation at the next graduation period.

Requests for extension of time must be petitioned to the Committee on Admissions and Advanced Standing. Petition forms are available in the Office of the Registrar and on the Northwest website at www.nwmissouri.edu/registrar/PDF/GeneralPetition.pdf.

In-Progress Grade

The in-progress (IP) grade is used only for high school dual enrollment, outreach courses, study abroad, and approved Missouri Academy courses which span more than one trimester. The IP designation is determined by the course, not the individual student. The IP grade is assigned at the end of the first trimester of the course and is replaced by the earned grade at the end of the course. If the student does not complete the course by the end of the established grading period, the appropriate grade will be assigned by the instructor. If the grade is incomplete, the existing incomplete grade policies would then apply.

A baccalaureate degree will not be awarded with an in-progress grade remaining on the student record at the end of the term of graduation. The IP grades become failing grades on the permanent record.

Calculating Grade Point

Grade points are calculated on the following basis: for each hour of “A,” four points; for each hour of “B,” three points; for each hour of “C,” two points; for each hour of “D,” one point; and for each hour of “F,” zero points. A grade point average is computed by dividing the grade points by the number of semester hours of academic work attempted. Grades assigned as NC, W, I, IP, or P are not computed in the grade point average.

Grade Point Average Requirements

Students with transfer credit will have three grade point averages: Northwest GPA—computed on work at Northwest only; Transfer GPA—computed on work transferred in from other institutions; and Cumulative GPA—computed on both Northwest work and that transferred in from other institutions.

The following are based on both the Northwest GPA and the cumulative GPA:

1. Academic status (good standing, probation, suspension or dismissal),
2. Financial assistance, except internal scholarships,

3. Graduation honors (summa cum laude, magna cum laude, or cum laude).

The Northwest GPA alone is used as the grade point average in determining eligibility for internal scholarships.

The cumulative GPA alone is used for the teacher certification grade point average, class rank and GPA at graduation.

Participation in the Assessment Program

Northwest must report the results of surveys and national tests to accrediting agencies (NCATE, North Central Association Team, and the Department of Elementary and Secondary Education) and to the Coordinating Board for Higher Education. In addition, the faculty must continue to evaluate the quality of its programs. Therefore, students may be required to take tests designed to measure general education achievement in selected areas, for purposes of evaluation and for the improvement of the academic programs at Northwest. No minimum score or level of achievement is required for graduation, unless a degree or certificate program so requires. Participation in testing may also be required of students in certain programs and of students selected on a sample basis.

Students who do not participate in scheduled and approved assessment projects may not be able to preregister or register for classes or receive a final transcript until the obligation is completed.

Superseding Grades/ Repeating Courses

A student who has received a grade of "C", "D" or "F" in a course may repeat a course in an effort to raise the grade, provided in the meantime the student has not completed a more advanced course for which the repeated course is a prerequisite. A student may supersede a given class at most two times, providing up to three opportunities to complete the given class. When a course is repeated, all of the grades will appear on the student's record, but only the highest grade earned will be used in determining the cumulative grade point average. A petition for superseding, available online through CatPAWS, must be completed online prior to registration for the course. Students will register for superseding courses during the normal registration period.

A five-hour course may be superseded by a four-hour course if the five-hour course is no longer taught and the four-hour course is essentially the same in content as defined by the department which originated the five-hour course. Similar procedures apply to a four-hour course which has been changed to three hours.

A student will not be allowed to supersede a grade earned at Northwest by completing an equivalent course at another institution.

Students must petition the Committee on Admissions and Advanced Standing for exceptions to the above policies. Petition forms are available in the Office of the Registrar, and online at www.nwmissouri.edu/registrar.

A student with veterans' benefits must advise the coordinator of Veterans' Affairs when he or she plans to supersede a grade.

Concurrent Enrollment

An undergraduate student enrolled at Northwest shall not receive credit toward graduation from Northwest for courses taken concurrently at another institution without permission of his or her major department.

Four-Week Advisory Grades

In order to inform students of their academic progress at four weeks, instructors of 100- and 200-level courses are asked to report all grades. Students notified of unsatisfactory coursework at four weeks are expected to follow up with the instructor in a conference, to address the

areas of concern personally and systematically, and/or to seek peer tutoring from a learning assistance program. These advisory grades are not permanently recorded.

Midterm Advisory Grades

In order to inform students of their academic progress at midterm, instructors assign deficiency grades (“D” or “F”) to students in courses in which the instructor has evaluated coursework. Students notified of unsatisfactory coursework at midterm are expected to follow up with the instructor in a conference, to address the areas of concern personally and systematically and/or to seek peer tutoring from a learning assistance program. These advisory grades are not permanently recorded.

Final Examinations

The University publishes an official final examination schedule for fall and spring terms. Summer examinations are scheduled by each instructor on the last day of the course. All examinations must be given on the day and time for which they are scheduled.

Students who wish to change their final examination schedule must obtain the approval of the instructor and file the change with the department chair/school director. Students may petition for a change in their final examination schedule only in cases of major medical situations, personal or family crisis, or University-prescribed activities. Students faced with an emergency and unable to contact the instructor should contact an appropriate University office or person as soon as possible.

A student who has three examinations scheduled on the same day may petition for a schedule change by initiating a petition with any one of the instructors giving an examination on the day three are scheduled. The petition must be signed by the instructor granting the change. The student will file the change with the department chair/school director. Petitions may be obtained at the academic department.

Grade Appeal Procedure

Faculty members have a professional obligation to evaluate the progress and/or performance in each course. Student progress and/or performance should be evaluated solely on the academic objectives of the course.

Students are responsible for maintaining standards of academic performance established for each course in which they are enrolled. Lack of success in meeting the academic grading standards established by the instructor shall not constitute a case for appeal.

A student who feels that the instructor has graded on the basis of personal opinions or other matters unrelated to the established academic standards is encouraged to consult with the instructor in the hope that a satisfactory solution can be achieved.

If the student still feels the instructor is biased or capricious in his/her academic evaluation, the student shall have the right to make written appeal of the grade within one calendar year from the last day of finals in the trimester during which the grade in question was assigned. The written appeal shall be submitted to the departmental/school-level Student Relations Committee through the department chairperson, school director, or coordinator. Such a committee shall consist of at least one faculty member and one student who are not directly involved in the case. Northwest Missouri State University faculty maintain records of students' academic performance until such time as the aforementioned window for submitting an appeal has expired.

A departmental/school-level Student Relations Committee shall convene within a reasonable time following the student's request for a formal hearing. If the committee feels there is reasonable justification for the student's appeal, then it shall schedule a formal hearing in which testimony from both the student making the appeal and from the instructor concerned will be considered, along with any supporting evidence. At the conclusion of the hearing, the committee will make its recommendation for the resolution of the difference, and shall notify in writing the student, the instructor, and the department chair, school director, or

coordinator. The written decision and the signatures of the committee members shall be filed in the department/school.

If the departmental/school-level Student Relations Committee supports the student but the instructor refuses to accept the decision of the committee, the student may notify the department chairperson, school director, or coordinator of the instructor's refusal. Should the allegation concern the department chairperson, school director, or coordinator the notification shall be made to the Associate Provost or Vice Provost or as otherwise designated by the chief academic officer. If the appeal fails, or is not supported by the department chair or school director, the student may then petition the Academic Appeals Committee. The student must make the appeal in writing to the Academic Appeals Committee, through the Office of the University Registrar, within 10 academic days of receiving formal notification from the departmental/school committee.

Pass/Fail Option

The primary purpose of the pass/fail option is to encourage students to attempt courses in areas outside their major or minor area which would not ordinarily be attempted because of lack of background. This option is made available so that students will feel free to broaden their educational experience somewhat without fear of a poor grade affecting their grade point averages.

Eligibility:

To be eligible to use the pass/fail privilege the student must:

1. Complete one term as a full-time student at Northwest.
2. Have a Northwest cumulative grade point average of at least 2.00 at the time of registration.

Procedure for Enrollment, Recording and Evaluation:

1. Courses to be taken on pass/fail must be so designated within the first 30 days of instruction of a trimester, the first eight days of a six-week or eight-week course, five days of any four-week course and two days of any two-week course. The student is to file a request for pass/fail grading in the Office of the Registrar.
2. Lecture/lab courses are considered as one unit.
3. Grades of "F" shall receive the same negative honor points as a regular "F."
4. Grades of "P" are not computed in the grade point average.

Limitations of Use of Pass/Fail:

1. Pass/fail may be used for a maximum of nine hours. Students transferring pass/fail hours to Northwest shall have those pass/fail hours counted toward their total pass/fail hours.
2. Pass/fail may not be used for any course:
 - a. In the student's major or minor requirements.
 - b. To meet a Northwest Core requirement.
 - c. Required for language requirement on a B.A. degree.
 - d. Required for teacher certification or any pre-professional requirement.
3. Pass/fail cannot be used for graduate-level courses.
4. Pass/fail cannot be used to supersede.

5. The University, its faculty and administrators, will be under no obligation other than those regulated by law to release information regarding the grade originally earned by the student.
6. All courses that are used to meet a free elective, or any hours taken above the minimum required for graduation and not prohibited by No. 2 above, can be placed on pass/fail.

Students must petition the Committee on Admissions and Advanced Standing for exceptions to the above policies. Petition forms are available in the Office of the Registrar and on the Northwest website at <http://www.nwmissouri.edu/registrar/PDF/GeneralPetition.pdf>.

Honor Roll and Graduation Honors

The honor roll is compiled at each official grading period and includes all full-time undergraduate students earning a grade point average of 3.50 or above in academic courses. Students who take an incomplete grade will not be considered for the honor roll for that term. Students who earn a 3.50-3.99 GPA will be named to the Academic Honor Roll. Students who earn a 4.00 GPA will be named to the President's Honor Roll.

Graduation honors are determined by a student's Northwest GPA, and if there are transfer credits, the cumulative GPA (all college work attempted) must also meet the GPA requirements. Graduating seniors who have grade point averages (Northwest and cumulative) between 3.50 and 3.74 inclusive for their work in their first academic degree will be graduated "Cum Laude." Those who have GPAs between 3.75 and 3.94 inclusive will be graduated "Magna Cum Laude." Those who have GPAs between 3.95 and 4.00 inclusive will be graduated "Summa Cum Laude." Only first degrees are eligible for honors and class rank.

Honors designation for the commencement program will be determined on the GPAs based on grades recorded by the Registrar four weeks prior to the spring and fall commencement exercises and two weeks prior to summer exercises.

External Examinations

Students may establish advanced standing credit by examination through the College Level Examination Program (CLEP), the Advanced Placement program (AP), and the International Baccalaureate (IB). See "Admissions (p. 13)" section.

Departmental/School Test-Out

Departmental/School test-out differs from advanced placement in that the examinations are administered and credit awarded solely by the department/school, and not through national institutions such as CLEP, ACT, etc. Therefore, the student should contact the department/school for information on which courses are available for test-out and examination dates.

Policies: Students expecting to test out of a course should not enroll in the course. The student must be enrolled at Northwest, however, for the period during which the test-out is administered and credit is awarded.

The student must apply for test-out with the appropriate department chairperson/school director. The chairperson or director determines what courses are available for test-out and will arrange for the test-out process in accordance with department/school policy. Where a test-out will result in schedule changes, the entire test-out process should be completed before the end of the 100% refund period.

Test-out may not be taken to supersede a "C," "D" or "F" grade. Test-out may be repeated twice in eligible classes, subject to department/school approval, but a period of six months must elapse between testings. A letter grade of "A," "B," "C," or "D" will be assigned.

Procedure: Each time a test is taken, the student must purchase a test-out form from the Bursar/Cashiering Office. (See "Fees and Costs" (p. 27) section.) A separate form must be purchased for each course, except for unit courses with labs. The student is to submit the form

to the department/school prior to testing. The department chairperson, director, or coordinator will complete the form and return it to the Office of the Registrar for processing immediately after the testing period.

Military Service

Students who have completed a minimum of one year of active military service may be granted credit as determined by the Northwest Office of Admissions. Credit may also be granted for specific military training and MOS designations as recommended by the American Council on Education.

Academic Probation, Academic Suspension, and Dismissal

Any student classified as a freshman whose Northwest or cumulative grade point average falls below 1.75 on a 4.00 scale is automatically placed on academic probation.

Any student classified as a sophomore, junior, or senior whose Northwest or cumulative grade point average falls below 2.00 is automatically placed on academic probation.

A student on academic probation is limited to 16 academic hours per trimester. This enrollment restriction will apply as long as the student is on academic probation.

A student on probation who falls further behind (i.e., who does not make at least a 2.00 grade point average for any trimester) shall be automatically suspended for two consecutive trimesters. Any student once placed on probation remains on probation until his or her Northwest and cumulative grade point average is at least 2.00.

A suspended student may apply to the Office of Admissions for readmission following his or her suspension period. Any student who has returned on probation following a period of academic suspension or who has been reinstated by the Committee on Admissions and Advanced Standing shall earn at least a 2.00 grade point average each probationary trimester in order to continue as a student. A second suspension will be for three consecutive trimesters. If a student is academically suspended from Northwest or from any other university or college for a total of three times, the student will be dismissed from Northwest.

Students must petition the Committee on Admissions and Advanced Standing for exceptions to the above policies. Petition forms are available in the Office of the Registrar and online at www.nwmissouri.edu/registrar.

Additionally, the following populations are required to enroll in INCO 77150 Academic Success Coaching (1 hr) and INCO 77151 Strategies for Academic Success (1 hr) as a condition of continuing enrollment:

1. Freshmen admitted through the Assist Program who are placed on academic probation.
2. Freshmen on academic probation who are receiving financial assistance and are identified by the Financial Assistance Office or the academic advisor/Advisement Office as students who could benefit.
3. Freshmen who failed University Seminar and are put on academic probation.
4. Students returning from academic suspension.
5. Suspended students who have been reinstated by the Committee on Admissions and Advanced Standing or Academic Appeals.

Adding, Dropping, and Withdrawals

Adding Courses:

Courses may be added during the first day of any short course, two-week course, or four-week course; during the first two days of a six-week or eight-week course, and during the first seven days of any course longer than eight weeks of instruction. This includes adding a course, exchanging courses, dropping courses, and transferring from one section of a course to another section. No change in program should be made without prior approval of the student's advisor.

Dropping Courses:

Students may drop a course during the first half of any length course. (See "Fees and Costs" (p. 27) section.) Those who do not follow the prescribed procedure for dropping a course will have a grade of "F" recorded on their permanent record.

If due to extraordinary reasons—beyond the control of the student—a student desires to drop a course after the deadline, the student must petition the Committee on Admissions and Advanced Standing. Extraordinary reasons which may be considered include advisor error, administrative error, or documented medical reasons. **Courses may not be dropped during the final exam period.**

Withdrawal from the University:

All students who wish to terminate their enrollment at the University during a term should initially consult with their advisor. If, after meeting with the advisor, a student decides to withdraw from the University, the student must complete an Exit Report through the Advisement and Orientation Office in the Administration Building. It is extremely important that a withdrawal be completed to ensure that proper entries are made on the academic transcript, that fee refunds are processed (See "Fees and Costs" (p. 27) section.) and that all University records reflect the withdrawal. If a student cannot initiate the withdrawal process in person, he or she should write or call the assistant director of advisement, who will process the withdrawal.

Students who wish to withdraw from the University must do so before two-thirds of any trimester or shorter-length term has expired. A "W" will be recorded for each class. Students on academic probation who withdraw from all classes will be readmitted on the same status they held at the time of their withdrawal from school. Students who do not follow the prescribed procedure to withdraw from the University will have recorded on their permanent record a grade of "F" for their courses.

If due to extraordinary reasons—beyond the control of the student—a student desires to withdraw from the University after the deadline, the student must petition the Committee on Admissions and Advanced Standing. Petition forms are available in the Office of the Registrar or online at www.nwmissouri.edu/registrar/PDF/GeneralPetition.pdf.

Students who are administratively withdrawn for non-payment of fees are prohibited from attending classes.

Transcript of Grades

Student requests for copies of their permanent grade record may be made in writing, through CatPAWS, on the online request form, or through the National Student Clearinghouse. Normally, a transcript can be issued upon 24 hours notice; however, at the end of a term, at least two weeks' notice should be allowed for grade recording and processing.

The student must send the transcript fee along with the written request or provide credit card information with the online request. Forms may be found at www.nwmissouri.edu/registrar/transcript.htm.

Transcript/Diploma/Enrollment Hold

Failure to meet obligations to Northwest, financial (i.e.: tuition, room, board, telephone, parking, library fines, class materials) or otherwise (i.e.: incomplete admissions file), will be cause for refusal to allow an individual to enroll, receive a diploma, or receive an academic transcript.

Guidelines

1. In financial situations, cases of exceptional circumstances will be considered.
 - a. An exception to a hold on a transcript will be made when (1) a transcript is required by a funding agency in order for funds due the University to be released or (2) when financial assistance personnel have verified that all necessary paperwork has been completed by the student and that a sufficient amount of assistance to cover the student's obligation will be forthcoming.
 - b. Enrollment may be allowed at the discretion of the Bursar when there is reasonable assurance that funding will be forthcoming.
 - c. No exceptions are made to a hold on a diploma.
2. In situations where an individual has not submitted all the required transcripts and/or ACT results, the dean of enrollment management or associate director of admissions may release a hold when there is reasonable assurance that the required materials are forthcoming. A hold may be placed on preregistration as well as general registration and verification of preregistration.
3. In other situations (i.e., disciplinary, etc.) the "holding" department will consider exceptional circumstances.
4. Appeals rest with the appropriate vice president or the Provost.

Degree Audit

The Office of the Registrar provides a degree audit to help students track their academic progress toward completing a degree program. Degree audits show students and advisors in a report format what requirements have been completed and those which still need to be fulfilled for graduation. Degree Audits should be reviewed at least 4 times during the trimester: before meeting with an academic advisor, after you register, after grades are posted, and anytime a schedule change is made. The student is responsible for knowing and meeting the requirements for a degree. Efforts are made to ensure the accuracy of the degree audit; however, final certification that an undergraduate student has completed all graduation requirements is the responsibility of the Registrar. Questions regarding how coursework is applying to requirements should be addressed to the Registrar (registrar@nwmissouri.edu).

Degree audits for all currently-enrolled and transfer students accepted to the University are available online through CatPAWS and myNorthwest, and selected audits are available in print form. A student may also request a degree audit at any time from the Office of the Registrar.

Appeals Process for Academic Policies

All students will have the right to appeal in person regarding decisions rendered by either the Committee on Admissions and Advanced Standing or the Curriculum and Degree Requirements Committee. The purpose of the Academic Appeals Committee is not to provide a secondary hearing of a case already heard by the Admissions and Advanced Standing Committee or the Curriculum and Degree Requirements Committee, but rather to ensure that students have been able to present all information pertaining to their case and that proper protocols have been followed. For this reason, students should provide a basis for their appeal. This requires that appellants either submit new information (e.g. documentation from a doctor, counselor, or official) pertaining to their case, or evidence of error or bias on the part of the previous committee. The Academic Appeals Committee will not substitute its judgment for that of the

other committee and overturn a previous decision unless such new information, error or bias provides a basis for doing so.

The student must initiate the appeals process by preparing a petition in consultation with his or her academic advisor, or in the absence of the academic advisor, another faculty member. Petition forms are available in the Office of the Registrar or online at www.nwmissouri.edu/registrar/PDF/AcademicsAppeals/pdf. The student must submit the petition to the Registrar, who will then direct the petition to the chair of the Academic Appeals Committee.

Graduation Policies and Requirements

Writing Competency

All students will demonstrate writing competence by successful performance on a writing assessment. Those who take the core writing courses at Northwest (ENGL 10111 (p. 355) and ENGL 10112 (p. 355), or ENGL 10115 (p. 355)) will take the assessment near the end of the sequence. Transfer students who have not completed the core writing courses at Northwest and have not passed an approved assessment at another school will complete the writing assessment at the same time as students taking core courses ENGL 10112 (p. 355) or ENGL 10115 (p. 355). Information about assessment procedures and retake options may be obtained from the Department of Language, Literature, and Writing office.

State Law Requirement for Degrees or Certificates

Candidates for degrees or teaching certificates must meet state law requirements, Section 170.011 (Rev 2014), of a completed course of instruction in and satisfactory passing of “an examination on the provisions and principles of the constitution of the United States and of the State of Missouri, and in American history and American institutions.” To comply with the law, students may: (1) complete POLS 34102 (p. 406), or (2) complete the requirement at another collegiate institution with substitution determined by the Office of Admissions.

Advanced Standing Requirement

Each department, college, or school may have an advanced standing requirement. Under this policy a department, college, or school may require a student wishing to pursue a major in that department, college, or school to complete certain courses, pass interviews, achieve grade point averages, or succeed in examinations prior to being formally admitted to a major. However, any student under this process and majoring in one discipline or department will be considered eligible to take courses in another department, college, or school without further requirement. Refer to appropriate departmental/college/school advanced standing statements.

Negative decisions regarding a student’s advanced standing may be appealed to the Associate Provost of the department or Vice Provost of the school.

Catalog Requirement

Students are permitted to be graduated by completing the curricular requirements in effect in the catalog in force at the time of their initial enrollment. Students may elect to follow new curricular requirements of subsequent catalogs but must follow one catalog or the other in its entirety. After 18 months of nonattendance, however, all current catalog requirements will be imposed.

The effective date of non-curricular policy and regulation changes is established by the president of the University who will disseminate this information to the students and faculty before implementation.

Senior Statement

Students must request a listing of remaining requirements at least two trimesters prior to their graduation in order to plan their final enrollments. Forms are available in the Office of the

Registrar or can be submitted from the Registrar's Office web page, www.nwmissouri.edu/registrar/. Any deviation from the deficiency listing must have approval from the department/school where the major or minor is involved or from the Curriculum and Degree Requirements Committee when Northwest Core Requirements are affected. A senior statement is required to be on file for each graduating student.

Application for Degree

Every student is required to submit an application for graduation at least one trimester preceding the trimester in which graduation is planned. Applications are submitted online via CatPAWS.

Commencement

Degrees are conferred at the end of each term, and commencement exercises are held at the end of Spring and Fall terms. The graduation fee is assessed whether or not the student plans to participate in commencement exercises.

Students completing degree requirements in Summer have the option to participate in the preceding Spring or following Fall ceremonies. Those who will complete requirements in the fall, but wish to walk early in the preceding Spring must apply by March 15. Those who complete requirements in spring, but wish to walk in the following fall must apply by October 15. Participation in the graduation ceremony does not constitute conferral of degree.

Graduation honors for the commencement program will be determined prior to final term grades. (See "Honor Roll and Graduation Honors" (p. 45) section.)

Academic Residence

1. At least 30 credit hours of academic work must be done in residence.
2. The last 10 credit hours of academic work must be done in residence.
3. Not more than one-fourth of the work on any curriculum may be taken by correspondence and/or extension.
4. Credit by examination is not considered to be residence credit.

Students must petition the Committee on Admissions and Advanced Standing for exceptions to the above policies. Petition forms are available in the Office of the Registrar or on the Northwest web page, www.nwmissouri.edu/registrar/.

Senior College Credit (Upper Division)

1. Candidates for the Bachelor of Science, Bachelor of Science in Education, Bachelor of Fine Arts, and Bachelor of Music Education degrees must earn at least 40 semester hours of credit in courses numbered 300 or above.
2. Candidates for the Bachelor of Arts degree must earn at least 32 semester hours of credit in courses numbered 300 or above.
3. 12 hours of the major and at least five of the minor must be in courses numbered 300 or above.

Physical Activity/Varsity Athletics Limitations

1. Only four physical activity credits may be counted toward the minimum number of hours required for graduation. Varsity athletics are not included in the physical activity credits.
2. Enrollment in varsity athletics is limited to four credits per sport.

Grade Point Requirement

1. Each applicant for a certificate, diploma, or degree must achieve a grade point average of not less than 2.00 in all academic subjects at Northwest.
2. A grade point average of 2.00 must be maintained in the coursework of both the major and minor fields of study.
3. A cumulative grade point average minimum is required for all certificates, diplomas, or degree programs for the Bachelor of Science in Education degree. All other degrees, certificates, or diplomas require a minimum cumulative grade point average. Please refer to the Professional Education Handbook.

Majors and Minors

For the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Music Education, and Bachelor of Science in Education degrees, the student must choose a major and minor, or a comprehensive major, selected from the departments/schools. The following factors should be considered:

1. That all minors can be joined with all majors in all degree programs.
2. Majors may not take a minor in the subject of the major unless the minor is an interdisciplinary minor.
3. Students in professional education programs with majors which require a minor must select minors with the assistance of their academic advisor. The department chairpersons, school directors, or program coordinators, the advisors, and the Office of Career Services are available to counsel students on this matter.

Courses Counting Toward Multiple Requirements

Students may use Northwest or transferred coursework to fulfill requirements for two (or more) comprehensive majors, regular majors, and minors, unless specifically prohibited in this catalog. Each comprehensive major, regular major, and minor shall consist of at least 12 hours of unique coursework not applied to any other comprehensive majors, regular majors, or minors. Any application of courses counting toward multiple requirements shall not affect the total hours needed for graduation and/or the programs to which the course is applied. See requirements for Undergraduate Degrees (p. 71).

Second Degree

For each baccalaureate degree beyond the first awarded to a student there is a requirement of 15 semester hours of work in courses numbered above 300. All specific and general requirements for the additional degree must be met but may be included within these 15 hours.

Teacher Certification

The University is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary teachers. Programs carry state approval by authority of the Missouri State Board of Education.

Information in regard to obtaining teaching certificates in other states is available in the School of Education.

Student Life Policies and Regulations

Student Records

Please visit the following link for more information regarding Student Records:

<http://www.nwmissouri.edu/policies/academics/Family-Educational-Rights-and-Privacy-Act.pdf>

University Housing Policy

Research has proven that freshmen experience an advantage, both in grades and in adjustment to college life, by living on campus within the University environment. To capitalize on this advantage, the University requires all first-time freshmen to live in the residence halls, unless they commute from their parents' or legal guardians' home, are married, or are 21 years of age or older. Students may petition the requirement to live on campus by completing the Commuting Form in the acceptance packet. Students whose form is approved will be exempted from this policy.

Student Identification Card (Bearcat Card)

Every student enrolled at Northwest is required to have an identification card (Bearcat Card), to carry it at all times, and to present it when requested by University personnel. The Bearcat Card serves as a meal card for students. In addition the card is used in the library, at sporting events, and in the copy machines and vending machines. The card can also be used as an ATM and debit card worldwide if the user has a US Bank account. All graduate and undergraduate students should report to the ID Office, in the J.W. Jones Union, as soon as they enroll, present their enrollment forms, and receive an ID card. The card is valid as long as the student is enrolled at Northwest. There is a replacement fee if the card is lost or stolen.

Campus Conduct Program

Coordinated by the Student Conduct and Development Coordinator, the Campus Conduct Program is a multi-leveled system of discipline committees designed to hear student grievances and violations of the Student Code of Conduct. For more information, refer to the online *Student Handbook* or contact the Student Conduct and Development Coordinator, (660) 562-1554.

Motor Vehicle Registration

Students are responsible for knowing and observing the parking and traffic policies. All vehicles must be registered with the University Police Department in order to use University parking facilities. Parking areas are designated for use by permit type.

Maps of the campus and copies of the Parking and Traffic Policy are available at the University Police Department, and are also distributed when students register their vehicles at the Student Services Center. Appeals of parking and traffic fines are heard by the Student-Faculty Traffic Committee and may be filed at the University Police Department.

Resources and Services

Student Services Center

Located on the first floor of the Administration Building, the Student Services Center provides visitor and student information, brochures, newsletters and petition forms, as well as other information concerning the University. Check cashing, ticket sales (performances and athletic), parking permits, FAX service, and other services are available. Individuals seeking information about the University may call the Student Services Center at (660) 562-1212.

Mabel Cook Recruitment and Visitors Center

Located at the main entrance to campus, the primary purpose of the Mabel Cook Recruitment and Visitors Center is to provide campus tours and admissions information for prospective students and their families. For more information, please contact the office at (800) 633-1175 or (660) 562-1562.

Office of Admissions

Other admissions functions are carried out by the Office of Admissions processing division in the Administration Building. This Office of Admissions processes all freshman, transfer, returning, dual credit, joint admission and non-degree applications for admission. Questions concerning transfer of credits, transcript evaluations, residency determination, admission procedures and standards may be addressed to this office. Phone (660) 562-1148 with any questions or concerns.

Office of Scholarships and Financial Assistance

Located on the second floor of the Administration Building, the Office of Scholarships and Financial Assistance is responsible for the administration of all federally-funded student financial assistance programs, including the Federal Pell Grant, the Federal Perkins Loan Program, the Federal Work Study Program, the Federal Supplemental Educational Opportunity Grant Program and the Federal Direct Loan Program. The office also provides services to students receiving vocational rehabilitation funds, veterans' benefits, private and institutional scholarships, state assistance programs and other types of financial assistance.

Students receiving vocational funding from the State Department of Rehabilitation or funding from the Veterans' Administration should contact this office for certification and counseling assistance. The Office of Veterans' Affairs, also located in this office, assists veterans and eligible persons in all phases of certification, retention of benefits, receiving payment for tutorial assistance, veterans' work-study, as well as financial and academic advice and counseling.

Students who need assistance in planning and budgeting their college expenses and resources are encouraged to contact this office for a copy of the student financial assistance brochure which describes the various types of assistance available as well as the procedures for applying.

In order to be eligible for federal financial aid, a student must be enrolled in a regular degree program or an approved certificate program.

Students who are in default on previous federal student loans are not eligible for any type of federal aid until the default status is removed.

Students are responsible for meeting the requirements for academic progress as stipulated in the Requirements for Academic Progress for Financial Assistance Recipients, which is given to each student who receives financial assistance coordinated through this office.

Office of the Registrar

The Office of the Registrar provides student services beginning with the student's first registration for courses, continuing through graduation and beyond. Inquiries concerning registration, academic standards, loan deferments, enrollment certifications, grade records, adding and dropping classes, degree audits, graduation requirements, and transcripts should be directed to this office, located on the second floor of the Administration Building.

Bursar/Cashiering Office

Located on the first floor of the Administration Building, the Bursar/Cashiering Office receives and processes all payments to Northwest. Inquiries concerning student financial accounts, installments, payment arrangements, refunds, and automatic applications of financial assistance should be directed to the Bursar/Cashiering Office, (660) 562-1578.

Advisement and Orientation Office

The Advisement and Orientation Office offers new student orientation programs and provides assistance in academic advisement and choosing a major to students who have not declared a major or those needing special assistance for success at Northwest. Services are targeted toward deciding students, non-traditional, probationary, transfer, and students wishing to change majors. In addition, the office conducts faculty training and operates the Attendance/Early Alert program, which connects students to University offices and services based on the student's academic or wellness needs. Any student seeking general advisement is welcome to visit the office located on the second floor of the Administration Building.

B.D. Owens Library

B.D. Owens Library, opened in 1983, is a service-oriented library in a 116,000 square foot facility designed to meet the varied learning and research needs of Northwest students, faculty, and staff. The library collection and services support scholarly research and provide current information that promotes student competencies concerning lifelong learning, critical thinking, communication and research.

The library's website provides on-campus and remote access to thousands of journal titles and eBooks for currently enrolled students and current faculty. The library's robust online catalog returns search displays with resource summaries and availability/location of books, eBooks, government documents and audiovisual materials. Course-focused guides and tutorials along with reference and citing assistance are also available. Reference service includes a broad array of delivery methods, including walk-in, by appointment, e-mail and phone. The library's very popular "Help with Research" program provides learners the opportunity to receive personalized research assistance.

The library building houses over 368,000 books, documents and bound periodicals. Nearly 40,000 periodicals are available in electronic format. Approximately 130,000 eBooks are available through the library catalog with additional access to over 25 million items through the statewide catalog maintained by the Missouri Consortium of Academic Libraries (MOBIUS). MOBIUS items arrive at Owens Library in 2-3 working days. Interlibrary loan service is available for materials not available within the state.

Owens Library is home to several key services widely used by the University community that complement the library's instructional support mission. The Teaching and Learning Center, which supports faculty professional development, the Talent Development Center, which offers free tutoring and academic support across the curriculum, the Writing Center, which offers writing across the curriculum tutoring, and The Center for Informational Technology in Education (CITE), which administers and supports the University's instructional technology needs, are all housed on the second floor. Information Technology support is also provided on the first floor.

Throughout the library, areas for private study and reading are available along with spaces and resources that invite collaboration and facilitate team project development. Additionally, Novel

Grounds, the library's full-service coffee house, provides a relaxing space for quiet conversation and contemplation. Owens Library is fully wireless.

University Wellness Services

University Wellness Services, operating out of the Wellness Center, is the hub for all campus wellness activities and encompasses clinical, counseling, health promotion, public health and crisis response services. While remaining committed to quality outpatient care, Wellness Services focuses on wellness not only as prevention of disease, but as a philosophy of life. This philosophy emphasizes self-responsibility and taking an active role in maintaining one's health with the assumption that true health must consider the individual as an integration of mind, body, and spirit through considering social, emotional, spiritual, intellectual, occupational and physical wellness. Please visit the University Wellness Services website at www.nwmissouri.edu/wellness.

Clinic Services

Wellness Services provides clinical health services to full- and part-time students. In the fall and spring trimesters, outpatient clinical services are offered between 8 a.m. and 5 p.m., Monday through Friday. Due to decreased volume demand in the summer, fewer clinic service hours are available. Wellness Services will bill all insurance plans (except out-of-state Medicaid) for clinic services provided to Northwest students. Students will be financially responsible for lab, procedure, and injection charges not covered by insurance, as well as medications prescribed by our providers. Students without insurance will be responsible for the entirety of these lab, procedure, injection, and medication costs. As a benefit of being a Northwest student, Wellness Services does not collect copays or bill students directly for office visit charges not covered by insurance—making us the most affordable and convenient health provider for Northwest students.

Prior to enrollment, students must comply with certain health requirements to protect the health and safety of the Northwest community including:

1. Completion of a Health History Form (required for all students).
2. MMR Immunization. All Northwest students born during or after 1957 must show proof of immunization against Measles, Mumps, and Rubella (MMR). Students who do not show proof of MMR immunization will have a hold placed on registration for classes in the next trimester. The following students are exempted from this requirement:
 - a. Online-only students,
 - b. Students attending one of Northwest's Distance Learning Centers,
 - c. Dual enrollment students.
3. Meningococcal Vaccination. Per Missouri State Law, all students who reside in on campus housing must provide proof that they have received the Meningococcal Vaccine. It is our recommendation, in accordance with CDC guidelines, that students who received the vaccine prior to turning 16 years of age receive a booster dose prior to moving into their residence hall. **Students will not be allowed to live on campus if this requirement is not met.** For more information, please review Wellness Services' Health History Form.
4. Tuberculosis Screening is required of all first-time students at Northwest Missouri State University. This screening is found on the Health History form that is given to all first-time Northwest students.
5. Tuberculosis Testing is required for first-time students who: are born in a country with high incidence of TB based on CDC guidelines; who have spent more than three continuous months outside the United States in a country with high incidence of TB; and/or have a known exposure to TB. Details on how to satisfy these requirements can be found at <http://www.nwmissouri.edu/wellness/beforenw.htm>.

Personal Development and Counseling Services

Wellness Services is committed to the personal development and success of all Northwest students. Wellness Services provides personal development and counseling services that are a vital resource to help students reach their full potential. Students use these services to improve the way they live, learn, and grow. Wellness Services offers individual and couples counseling to students, focusing on a wide variety of student concerns. In addition, the following services are provided to the campus community: workshops, guest lectures, referral services, consultations, training and crisis intervention. Recently, Meditation classes have been added as services to students at no additional charge. Counseling services and outreach are provided by a staff of licensed mental health professionals to help students get the most out of their college experience.

Health Promotion Services

Wellness Services offers a variety of services promoting health and wellness that are designed to help students modify their lifestyles and move toward a higher level of health and wellness. These services include, but are not limited to: grant-funded public health initiatives, health and wellness related speakers, awareness weeks, health education activities, and other health promotion events.

Peer Education

Northwest Bearcat Peer Educators are students who are passionate about promoting health and wellness to their peers. Many Peer Educators have received certification through the BACCHUS Network, a national peer education network. Through interactive activities in and out of the classroom, they share the vision of Wellness Services with the campus community. They educate other students through classroom seminars, special programs, and awareness campaigns. Topics Peer Educators address include: alcohol and drugs, wellness, relationships, sexual assault, body image, diversity, stress management, and others. Presentations can be tailored to fit the audience's needs. For more information about becoming a Peer Educator or to schedule a presentation, contact Peer Education at the Wellness Center, (660) 562-1348 or email at peeredu@nwmissouri.edu.

Information Technology

Northwest provides computing services to students, faculty, and staff via the campus network of over 7,000 notebook and personal computers. Featuring notebook computers for every student, the network is supported by high speed gigabit connections between buildings and high speed switches. Interactive computing and computer-aided instruction is supported by 110 servers. The local-area networks on campus are linked with a 500mbps connection to national and international wide-area networks via MOREnet and Internet. These services are available to every student, staff member and faculty member. Wide-area computing services include electronic mail via cloud email servers, remote library searches, and remote login access to super computers across the nation, plus locally supported access to the World Wide Web.

Students are assigned a username and password which can access a variety of services free of charge. For example, web services provide general information on class offerings, student and faculty directories, calendars, scholarship offerings, job openings, and a self-enrollment system enabling students to select course sections they desire. Email, along with other productivity tools such as Microsoft Office, are available to assist the students in their academic work. Students may also print at several locations across campus, for which there is a small printing fee for the laser and color printers. The library online catalog and full-text article retrieval, are also available using your network username and password. Wireless access is available in all academic, student services and student housing buildings on campus.

Textbook Services

Textbook Services coordinates the textbook usage program, in which a primary textbook is provided for most of the undergraduate courses. Students pay a per credit hour fee for textbook usage. Supplemental and/or additional books/materials may be required and can be purchased at the Bearcat Bookstore. Students pick up their textbooks at the beginning of each

trimester and must return the books by 5 p.m. of the last day of finals for the trimester. Late fees are assessed for books that are not picked up or returned on time. Students enrolled in web only courses may borrow their primary textbooks from Textbook Services. The request can be submitted by email to ttobin@nwmissouri.edu and needs to include 919#, course number(s) and address for shipping. Students must pay for shipping charges on borrowed materials. All textbooks, CDs and other course materials borrowed must be returned to Textbook Services, 800 University Drive, Northwest Missouri State University, Maryville, MO 64468 within one week after the final exam is complete. More information can be found on the Northwest web page under Textbook Services. Students may contact Textbook Services by emailing textbookservices@nwmissouri.edu if they have specific questions.

Assist Program

Northwest's Assist Programs provides support for at-risk freshmen with services which help them better understand the purposes of higher education, aid in the transition from high school to college, promote standards of academic excellence, assist students in creating and maintaining the life-long learning strategies that minimize anxiety, and provide guidance and recommendations for using institutional resources and services. Additional information is available at www.nwmissouri.edu/tdc/.

Student Athlete Success Program

The Athlete Success Program provides support and guidance for varsity student-athletes. The program is located on the second floor of B.D. Owens Library and assists Northwest's student-athletes in creating and maintaining life-long learning strategies to help them achieve academic success. A special feature of the Student Athlete Success Program is its focus on persistence to graduation for Northwest's varsity student-athletes. Additional information is available at www.nwmissouri.edu/tdc/.

Talent Development Center

The Talent Development Center (TDC), located on the second floor of the B.D. Owens Library, offers face-to-face tutoring session and group study. TDC programs provide free learning assistance in the most rigorous subject areas in the general education program, as well as individualized assistance for upper-level courses. Additional information is available at www.nwmissouri.edu/tdc/.

Learning & Teaching Center powered by CITE

The Learning & Teaching Center provides support to faculty and staff in its mission to create a culture of learning. The Center plays an integral part in Northwest's effort to enhance student learning through professional development for faculty in the areas of teaching, learning, and technology. Included within the Center are the Center for Information Technology in Education (CITE), Video and Web Conferencing, Northwest Online, Textbook Services, and a Student Employment Team. Beyond the Center's primary focus of supporting the faculty in teaching, learning, and integration of technology into campus courses, it is also extensively involved in the creation and development of online and blended courses and programs. The goal is to enhance student opportunities for learning by providing high quality courses that can meet the time and space flexibility requirements many of them face in today's continuous learning environment.

Students with Disabilities

Northwest is committed to providing quality support services to all students. Once a student has been admitted to Northwest, it is the student's responsibility to request accommodations through a member of the Learning Assistance Providers/Services (LAP/S) Committee and to provide disability-related documentation. Additional information is available at www.nwmissouri.edu/swd.

Institutional Assessment

The Assessment Office is responsible for a variety of activities required by Northwest for strategic academic program improvement and to provide the citizens of Missouri with information about student learning. Projects include administering satisfaction and engagement surveys, scheduling and administering general education tests, and coordinating major field subject matter examinations selected by the academic departments. The office also functions as a local administration site for a number of state and national testing companies offering examinations, such as ACT, SAT, GRE subjects, CLEP, MAT, MOGEA and Praxis Series.

Institutional Research

The Institutional Research Office assists academic departments and service units with identification and measurement of key performance metrics, designs and administers mission-related surveys, develops data collection and reporting processes, maintains a dashboard/information management system and provides data analysis to support the research and strategic decisions made at various levels of the institution. The office is also responsible for constructing and providing data collections requested by research organizations as well as those required by local, state and federal education bodies and accreditation entities.

Northwest Writing Center

Located on the second floor of Owens Library, the Northwest Writing Center offers tutoring to students wanting to become better writers. Any undergraduate or graduate student, staff or faculty member may visit the center or call (660) 562-1480 to reserve an appointment. Walk-in appointments are also welcome. Graduate Assistants and Peer Tutors will assist with any kind of writing task: essays, reports, research papers, letters and other assignments. While the Writing Center is not a professional editing service designed to proofread papers, tutors will gladly guide writers through prewriting, revising and editing strategies designed to develop a writer's skills. The Writing Center also provides small group tutoring and standing appointments. Finally, conversation partners are available for students wishing to further develop their speaking skills.

University Mathematics Laboratory

The Mathematics Laboratory, located in Garrett-Strong 2930, provides walk-in tutorial help for most mathematics courses. In addition, tutoring sessions are held for certain courses twice a week. The hours are posted by the lab.

Student Support Services

Student Support Services is a federally-funded program designed to help its student members learn how to use the variety of Northwest resources to achieve and develop the professional skills necessary for successful employment. Program personnel help students understand their readiness for academic success, learn specific ways to improve their chances of success in college and develop appropriate expectations about college. Comprehensive services include academic, financial assistance, and career counseling. Students must apply for membership and should call the director, (660) 562-1862, to discuss opportunities available through Student Support Services. The office is located on the third floor of the Administration Building.

Career Services

Students may prepare for a competitive job market through opportunities with this office during their time as a Bearcat. Career Services offers career, major and internship counseling, assistance with resumes, cover letters and graduate school materials as well as professional career events. Events include "Mock" Interview Day, Career Day, Education Expo and Exploring Majors and Minors.

TypeFocus, an electronic interest assessment/interest inventory can provide students with useful information regarding careers that suit their individual personality. We encourage

students to participate in career-related internship experiences to test suitability for specific career fields, network with professionals and prepare for a post-graduation job search.

Visit our comprehensive website at www.nwmissouri.edu/careerserv/ for career related videos, document samples, event details and "Hire A Bearcat", a searchable, online network of jobs and internships. University Career Outcomes and First Destination statistics gathered by Career Services are also available on the website.

All services are free to current undergraduate and graduate students extending three months post-graduation. Students may make an appointment online or visit us in the Administration Building, Room 130.

University Police Department

Located in the Support Services Building, the University Police Department, staffed with commissioned officers, enforces state, local and University regulations to protect the welfare of the University community. The department operates 24 hours a day, every day of the year in order to assist in campus safety, fire safety, crime prevention and investigation and security on campus. The department also oversees vehicle registration and the enforcement of University parking regulations.

Bearcat Bookstore

The Bearcat Bookstore, a Barnes & Noble college bookstore, is located on the second floor of the J.W. Jones Student Union and is your on-campus source for Bearcat clothing and gifts, greeting cards, instructional materials and supplies, hardback and paperback books and many other items. Students have the option of charging items from the bookstore to their student accounts. Store hours during fall and spring trimesters are Monday-Thursday, 8 a.m.-5 p.m.; Friday, 8 a.m.-4:30 p.m.; closed Saturdays and Sundays except for home football games or other campus-wide events. Summer trimester hours are Monday-Thursday, 9 a.m.-4 p.m. The bookstore can also be found online at www.nwmissouri.bkstore.com and on facebook at www.facebook.com/bearcatbookstore.

Student Media

The student media, located in Wells Hall, includes broadcast, print and online facilities. The studios of KZLX-LP, KXCV/KRNW-FM, and KNWT-TV are located on the second floor of Wells Hall.

KZLX-LP is the award-winning campus radio station operated by and for Northwest students. The station offers on-the-air experience necessary for entering a career in radio broadcasting. Included are opportunities to develop skills in underwriting, production, management, programming, news and sports, and promotions. The station provides music and news for the campus, Maryville and surrounding area.

Additionally, students can further develop skills in announcing, feature production, programming, development and news on KXCV 90.5 FM, the 100,000-watt professional public radio station and KRNW 88.9 FM, a 38,000-watt station both located on the campus of Northwest Missouri State University. Both stations are non-commercial public stations that have a two-fold mission: one, to offer alternative programming that isn't available through commercial radio, and two, to provide hands-on training opportunities to the students of the School of Communication and Mass Media at the University enabling them to be job ready upon graduation. Students can develop those skills through on-air board shifts, news gathering, writing and delivery and sports broadcast opportunities. KXCV and KRNW are multiple Missouri Broadcaster Association award-winning radio stations and provide the public radio mainstays of in-depth news through NPR's Morning Edition, All Things Considered and 19 daily local and regional newscasts. The stations also provide jazz, classical, and Americana music programming to their listening area, ranging from Omaha, Nebr. to Kirksville, Mo., and from Des Moines, Iowa, to Kansas City, Mo., and are members of NPR and American Public Media. Established in 1971, KXCV has been serving the area with top quality programming and entertainment and concentrating on student success, every student every day!

KNWT Student Television serves both the Northwest campus and the city of Maryville. Students learn the basic use of video recording and editing equipment, television directing and producing techniques, and station operations, while producing a wide variety of television programming. In 2013 and 2014, KNWT-TV was named one of the top-four "college and university Station of the Year" contenders by the College Media Association. Programs are produced in our Wells Hall studios, live from our 28-foot production truck, or on-location in the field. Student-produced programming includes campus and community newscasts (in cooperation with the student newspaper and converged news website), sports programs, talk shows, student films and documentaries. Students have the opportunity to build skills in front of and behind the camera. KNWT-TV airs on Suddenlink Cable channel 8 in Maryville as well as online via Facebook and www.uStream.com.

Student Publications is located on the lower level of Wells Hall and includes *The Northwest Missourian* weekly newspaper, the *Tower* yearbook and *Heartland View* online magazine. Student Publications offers students practical experience for a journalism/communication career. All publications are governed by a student-operated editorial board. Northwest is one of the few universities/colleges in the country to have all three publications recognized as All-American award winners by the Associated Collegiate Press (ACP). *The Northwest Missourian* and *Tower* yearbooks have been recognized for excellence and awarded Hall of Fame status by ACP.

The Northwest Missourian is a campus and community news forum. Students learn news writing, sports writing, feature writing, editorial writing, photography, advertising, graphic and design skills while working on the newspaper. An electronic version is available at www.nwmissourinews.com. *The Northwest Missourian* is recognized as a Pacemaker publication (top 1 percent in the nation) by the Associated Collegiate Press. It has been honored as one of the top six newspapers in the country by the Columbia Scholastic Press Association. *The Northwest Missourian* was inducted into the ACP Hall of Fame in 2000.

Heartland View is an electronic regional features magazine. This professional magazine can be found online at www.nwmissourinews.com.

Tower yearbook is consistently honored as one of the top 5 yearbooks in the country. *Tower* was inducted into ACP's Hall of Fame in 1994 and is recognized as a Pacemaker publication by ACP and a Gold Crown winner by CSPA. Northwest was the first public university in the country to produce a CD-ROM supplement to the yearbook, and the first with a DVD supplement. Today, *Tower* takes advantage of the latest in digital technologies through augmented reality and a companion App to the yearbook. Follow *Tower* on Facebook at www.facebook.com/TowerYearbook.

Percival DeLuce Memorial Collection

The Percival DeLuce Memorial Collection contains drawings, paintings, and prints by Percival DeLuce (1847-1914) and his contemporaries, as well as DeLuce family papers, diaries, and a portion of the family library. The collection also includes heirloom furniture which belonged to the family, including pieces from Duncan Phyfe and from the Napoleonic era, housed in permanent exhibition rooms. Some pieces are shown in rotation in the gallery. Located in the Olive DeLuce Fine Arts Building, the collection is a valuable resource for scholarship as well as an exhibit for the general public.

Missouri Small Business and Technology Development Center (SBTDC)

The Missouri Small Business and Technology Development Centers help businesses in every stage, from concept to startup and from existing to growth and invention. The Northwest Missouri State University SBTDC is a partnership program with the U.S. Small Business Administration (SBA). The SBTDC is one of over 30 centers in Missouri and one of over 1,000 SBTDCs in the United States. The Northwest SBTDC serves 18 counties in northwest Missouri with offices in Maryville, St. Joseph and Chillicothe.

The SBTDC provides confidential one-on-one counseling for small business owners, managers and prospective owners. Counseling services are provided on an individual basis to meet the needs of the specific company or business owner. Typical areas covered are startup processes, business planning and feasibility, financing/funding, marketing, and human resources to mention a few. The objective of this counseling is to provide a healthy small business community and to foster economic development, new business startups, expansion, new/retained jobs and sales growth.

In addition to the services listed above, the SBTDC works with Missouri Procurement Technical Assistance Centers (MO-PTAC) whose mission is to assist businesses in obtaining federal, state and local government contracts for products and services.

The SBTDC is also part of the Dean L. Hubbard Center for Innovation and Entrepreneurship (CIE), a mixed use incubator on the Northwest Missouri State University campus. The Center for Innovation and Entrepreneurship assists technology firms wishing to commercialize their innovation receive consultation and specialized services. One of these services is MoFAST, Missouri's federal and state technology program. Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) specialized staff can assist companies with commercialized planning (Phases I, II, and III), agency evaluation and identification, proposal preparation, and post-award planning.

Office of Intercultural Affairs

The Office of Intercultural Affairs fosters an educational environment in which students, faculty, and staff from diverse backgrounds and orientations can come together to share, learn, grow, and enjoy the rich experiences and contributions each has to offer. The office provides assistance to individuals, groups, departments, and other surrounding communities on issues of cultural and ethnic diversity specifically through educational programming, intercultural training, cultural enrichment activities, and counseling. The director of intercultural affairs supports multicultural student organizations to link with all Northwest student organizations in order to enhance campus activities and to create an enriched college environment that is characteristic of our global community.

International Affairs and the English as a Second Language (ESL) Program Office

The International Affairs Office offers immigration advisement and counseling for international degree-seeking, ESL, and exchange students. International Affairs provides leadership for international recruitment, retention support and policy creation to ensure academic success through graduation for international students. In conjunction with academic offices, the director consults in areas such as curriculum development and international education. It also collaborates with other IIC units to provide intercultural training and positive campus climate creation and support.

The English as a Second Language Program (ESL) offers intensive English courses to non-native speakers of English to improve their language skills, primarily for academic reasons. There are five, eight-week long sessions per year beginning in January, Spring Block 2, June, August and Fall Block 2. The program offers small classes that are designed to prepare students to enter a full-time course of study at Northwest.

Study Abroad Office

The Study Abroad Office assists students in identifying the study abroad program best suited to meet their academic and cultural interests. Studying abroad is one of many academic options that Northwest students from all academic areas are invited to experience. Whether a faculty-led short-term program, a summer program, a trimester, or academic year, students have the opportunity to earn Northwest credit abroad, at the same time they are exposed to a new educational system. Students broaden their horizons by traveling to an international location to study with local citizens and/or international students to experience global living. Study Abroad advisors link students with academic advisors, financial aid counselors, and other student service providers to plan a rewarding interaction and educational experience.

Office of Volunteer, Service Learning and Civic Engagement

The office of Volunteer, Service Learning and Civic engagement is responsible for providing community engagement opportunities, projects, and support to all Northwest students, faculty and staff as well as the coordination of Alternative Spring Break programs (ASB). The Volunteer office supports volunteer events, fundraisers and ASB trips, with the help of student groups such as Alternative Spring Break, Greeks, athletes, and all other Northwest organizations.

Northwest Missouri Educational Consortium (NMEC)

Northwest has been offering Distance Learning courses through online technology for fifteen years. However, over that same period, many courses were also offered by Northwest through Distance Learning via Interactive Television (ITV) technology under the auspices of the Northwest Missouri Educational Consortium (NMEC).

ITV courses utilize videoconferencing equipment which allows people at different sites to see and hear one another simultaneously. This allows offsite students the ability to interact with their professor, and other class members, in real time.

By combining ITV and online technologies, “blended” classes have been created which give students the best of both worlds - some aspects of the class can be done by the student whenever or wherever they like online, but the class also meets via ITV so students can interact with their professor, the material and other classmates.

Most ITV classes are offered at Northwest’s Outreach Centers in Kansas City and St. Joseph, but other ITV sites utilized include: North Central Missouri College in Trenton; North Central Career Center in Bethany, Brookfield Area Career Center, Grand River Technical School in Chillicothe and Northwest Technical School in Maryville.

Through the NMEC, Northwest also receives ITV classes from other higher education institutions, allowing students the ability to have the opportunity to take courses which will supplement their learning experiences.

Military Science (Army National Guard GOLD Program)

Northwest is proud to partner with the Missouri National Guard to offer the Guard Officer Leadership Development (GOLD) Program on the Maryville campus. The Show Me GOLD Program is an officer candidate school preparation program resulting in a commission as a second lieutenant in the Army National Guard. Students enlist in the Army National Guard and attend basic and advanced individual training. They are then attached to the Northwest GOLD Detachment where they take military science courses on the Maryville Campus from Army National Guard instructors. Between their junior and senior year students then attend the accelerated National Guard Officer Candidate School where upon completion they are commissioned as second lieutenants in the Army Guard. The students then return to Northwest to complete their degrees. The Missouri National Guard has substantial financial assistance for all Guardsmen in the form of the GI Bill and tuition assistance programs. GOLD Program students may apply their military science coursework toward a minor in Military Science. Contact the on-campus Military Science recruiter for information on the Show Me GOLD Program and scholarships.

Military Science (Army ROTC)

Northwest has a cross-enrollment agreement with the Department of Military Science at Missouri Western State University in St. Joseph. Northwest students can enroll in Army ROTC for Northwest credit and take the courses at Missouri Western State University and the University of Missouri-Kansas City. Any student can take military science courses for elective credit. Eligible students can contract with the program to pursue a commission as a second lieutenant in the active U.S. Army, U.S. Army Reserve, or Army National Guard. The Military Science program offers several two-, three-, and four-year scholarships that pay for full tuition, fees, and books. Contracted ROTC students may apply their military science coursework toward a minor in Military Science. Contact the on-campus Military Science recruiter for information on the Show Me GOLD programs and scholarships.

Northwest Kansas City Center

Northwest-Kansas City is located at the Northland Innovation Campus at 6889 N. Oak Trafficway in Gladstone, MO.

The office has regular office hours Monday through Thursday from 8 a.m.- 5 p.m. and Fridays are by appointment only. Northwest-Kansas City offers bachelor completion and graduate level programs. For more information, visit the Northwest-Kansas City website at or visit www.nwmissouri.edu/kc.

Northwest St. Joseph Center

The Northwest St. Joseph Center is located in the historic Green Acres Building, 3500 N. Village Dr., Suite 100 S, St. Joseph, MO. The center has regular office hours Monday through Thursday from 9 a.m.-6 p.m. and Fridays are by appointment only. Classes and events may be held during alternate hours as requested. For more information contact the Northwest St. Joseph Center at (816) 364-5000 or visit www.nwmissouri.edu/stjoe.

University Requirements

Pre-Professional Programs

Northwest offers pre-professional courses of study which encompass many careers. In most instances, these courses have been compiled in conjunction with specific requirements of professional schools. Many professional schools require specific procedures in regard to entrance tests, application deadlines and interviews. Thus, it is mandatory that students have a specific pre-professional advisor who is versed in the necessary requirements for admission to the professional school.

In many professions, no specific undergraduate major must be followed and the student may major in any area of interest. Therefore, students should have both a pre-professional and a major advisor.

Pre-Profession	Advisor	Academic Area
Audiology & Speech Pathology	Lori Durbin	Communication
Chiropractic	Jeffry Thornsberry	Biology
Dental Hygiene	Karen Schaffer	Biology
Dentistry	Karen Schaffer	Biology
Engineering	Himadri Chakraborty	Physics
Law	Daniel Smith	Political Science
Clinical Laboratory Sciences	Gretchen Thornsberry	Biology
Medicine	Jeffry Thornsberry	Biology
Nursing	Karen Schaffer	Biology
Occupational Therapy	Karen Schaffer	Biology
Optometry	Karen Schaffer	Biology
Osteopathic & Allopathic Medicine	Jeffry Thornsberry	Biology
Pharmacy	Jeffry Thornsberry	Biology
Physical Therapy	Karen Schaffer	Biology
Radiology	Karen Schaffer	Biology
Respiratory Therapy	Jeffry Thornsberry	Biology
Veterinary Medicine	Gregg Dieringer	Biology
	Callie Mullins	Agricultural Sciences

The Northwest Core

(General education)

Northwest prides itself on providing students with meaningful and rigorous learning opportunities through academic and other educational, co-curricular experiences. These opportunities are integrated into The Northwest Core, which is the foundation of student life at the University.

Both the academic and co-curricular opportunities of The Northwest Core are designed to give students the knowledge and skills to:

- lead productive and meaningful lives
- practice life-long learning
- engage intelligently and humanely with diverse and global populations
- excel in their chosen careers
- act as leaders in their communities

To accomplish these goals, The Northwest Core, through academic and co-curricular experiences, focuses on:

Communication - Northwest students will understand the role of writing and speaking in living and learning, and speak and write effectively in a variety of contexts.

Critical Thinking - Northwest students will engage in disciplined thought to generate and communicate ideas.

Managing Information - Northwest students will successfully locate, retrieve, organize, store, synthesize, and annotate various forms of information.

Valuing - Northwest students will understand the formation and context of values.

The Northwest Core - Academics

Through coursework, The Northwest Core - Academics enables and encourages students to acquire and use the knowledge, intellectual tools, and creative capabilities necessary to study the world as it is, as it has been understood, and as it might be imagined.

Courses in The Northwest Core - Academics are organized into components:

Foundations provides students with the knowledge and skills needed for success at the University, and focusing on oral and written communication, critical thinking, and contemporary technology, prepares them to lead productive and meaningful lives.

Contexts provides students with opportunities to explore and understand the world from different vantage points--globally, through the lens of western civilization, and from the American perspective.

Connections provides students with opportunities to study how the knowledge and skills gained in Foundations and Contexts coalesce in the arts and sciences.

Interspersed among these components are opportunities for *interdisciplinary engagement* courses, which empower students to investigate themes and concepts from the perspective of two or more disciplines simultaneously, and encourage the transfer of knowledge and skills across those disciplines.

The Northwest Core - Co-Curricular

Co-Curricular learning is designed to extend the Northwest Core competencies developed in the classroom environment to the student's involvement in an inclusive campus community experience—engagement in committed action, personal development through continuous learning, and leadership in a professional environment. This integration of the Core curriculum with co-curricular activities prepares students for career-ready professional life and engaged citizenship in a comprehensive learning environment.

The Northwest Core - Academics Portion of Degree Requirements

In order to complete the bachelor's degree, students must take The Northwest Core requirements for their specific degree, plus major and/or minor requirements as specified by the department, plus electives as needed to total a minimum of 124 semester hours.

It is important for students to work closely with their academic advisors when selecting courses, as not all courses fulfill requirements for all degrees. Students who change their majors, choose double majors or additional certification, or who do not choose courses carefully may need more than 124 semester hours to complete a degree program.

Northwest Core - Academics Requirements

The Northwest Core - Academics courses are required for the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Music Education, the Bachelor of Science, the Bachelor of Science in Education-, and the Bachelor of Science in Clinical Laboratory Sciences.

Required courses for the Bachelor of Technology may be chosen from The Northwest Core requirements. See Bachelor of Technology (p. 77) for specific information on this degree.

A course taken to fulfill The Northwest Core - Academics Requirements may be used to satisfy other degree or program requirements as long as such application is not restricted in this catalog. Such multiple applications will not reduce the total hours needed to earn a degree, nor the total required hours necessary for any comprehensive majors, regular majors, minor, certificates, or other programs.

It is recommended that students carefully sequence courses from The Northwest Core Requirements during their freshman and sophomore years.

The Northwest Core Substitutions

In general, Northwest Missouri State University does not allow substitution of courses in The Northwest Core. The integrity and coherency of this program demands that it be completed as designed.

Transfer and dual-credit students, or students in other extraordinary circumstances, may seek to have courses taken at other institutions deemed equivalent to a Northwest Core course through established protocols. Those protocols include determination by the Registrar's Office and the chair/director of the department/school that houses the course for which the equivalency is to be established. Courses deemed equivalent must be adjudicated to be of the same academic level and content as the Northwest required course.

All petitions to substitute a non-equivalent course for a Northwest Core course must meet the approval of the Curriculum and Degree Requirements Committee of the Faculty Senate. Such petitions must include serious reasons that justify the substitution.

Foundations

University Seminar

See INCO (p. 372) course descriptions.

INCO 77101	University Seminar	1
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Oral Communication (choose 1 course)

See COM (p. 332) and CORE (p. 336) course descriptions.

COM 29102	Fundamentals of Oral Communication	3
CORE 90201	Interdisciplinary Engagement: Oral Communication	3 to 4

Written Communication (6 credits)

See ENGL (p. 351) and CORE (p. 336) course descriptions.

Any student with ACT English score of 18 or above

ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
CORE 90202	Interdisciplinary Engagement: Written Communication A	3 to 4

Any student with ACT English score of 27 or above

ENGL 10115	Accelerated Composition	3
CORE 90203	Interdisciplinary Engagement: Written Communication B	3 to 4

Students who have an ACT English score of 27 or above may elect to take ENGL 10111 and ENGL 10112. Students with credit for ENGL 10111 and an ACT English score of 27 may elect to take ENGL 10115 rather than ENGL 10112.

Note: See course descriptions for meeting prerequisites and placement requirements.

Mathematical Reasoning (choose 1 course)

Advisement necessary for correct selection.

See MATH (p. 378) and CORE (p. 336) course descriptions.

MATH 17110	Finite Mathematics	4
MATH 17114	General Statistics	3
MATH 17115	Concepts of Mathematics	3
MATH 17117	Precalculus	4
MATH 17118	College Algebra	3
MATH 17120	Calculus I	4
MATH 17171	Fundamentals of Mathematics	3
CORE 90204	Interdisciplinary Engagement: Mathematical Reasoning	3 to 4

Note: See course descriptions for meeting prerequisites/co-requisites requirements.

Digital Literacy choose 1 course

See CSIS (p. 336), EDCI (p. 343), EDUC (p. 348), HUM (p. 372), GEOL (p. 361), PHSC (p. 403), and CORE (p. 336) course descriptions.

CSIS 44101	Foundations of Computing	3
CSIS 44130	Computers and Information Technology	3
EDCI 62130	Educational Computing and Technology	3
EDUC 61145	Information and Educational Technology	3
HUM 26105	Information Technology and Culture	3
GEOL 27130	Information Technology and Science	3
PHSC 40106	Computational Methods in Science	3
CORE 90205	Interdisciplinary Engagement: Digital Literacy	3 to 4

Contexts**Global Experiences (choose 1 course)**

See COM (p. 332), EDUC (p. 348), ENGL (p. 351), GEOG (p. 358), HUM (p. 372), LANG (p. 373), MMED (p. 388), MUS (p. 393), PHSC (p. 403), REC (p. 417), POLS (p. 406), and CORE (p. 336) course descriptions.

ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10226	Modern and Contemporary World Literature	3
LANG 14131	French: Communication and Culture I	3
LANG 14132	French: Communication and Culture II	3
LANG 14141	Spanish: Communication and Culture I	3
LANG 14142	Spanish: Communication and Culture II	3
LANG 14151	Introduction to American Sign Language and Deaf Culture	3
LANG 14161	Russian: Communication and Culture I	3
LANG 14162	Russian: Communication and Culture II	3
MUS 19280	World Music	3
MMED 20221	Ethnographic Film Study	3
HUM 26104	The Eastern World	3
HUM 26162	Comparative Religions	3
COM 29225	Intercultural Communication	3
GEOG 32102	People and Cultures of the World	3
POLS 34105	The African World	3
REC 45211	Leisure and Society	3
EDUC 61252	Pluralism in a Multicultural Society	3
CORE 90206	Interdisciplinary Engagement: Global Experiences	3 to 4

Western Experiences (choose 1 course)

See HUM (p. 372), COM (p. 332), PHIL (p. 402), and CORE (p. 336) course descriptions.

HUM 26102	Western Civilization I: The Ancient World to 1500	3
HUM 26103	Western Civilization II: 1500 to the Present	3
COM 29235	Introduction to Classical Rhetoric	3
PHIL 39171	Introduction to Philosophy	3
PHIL 39274	Historical Ethics	3
PHIL 39275	Professional Ethics	3
PHIL 39276	Bio-Medical Ethics	3
CORE 90207	Interdisciplinary Engagement: Western Experiences	3 to 4

American Experiences (choose 1 History and 1 Political Science)

See HIST (p. 364), POLS (p. 406), and CORE (p. 336) course descriptions.

History

HIST 33155	The United States to 1877	3
	OR	
HIST 33156	The United States Since 1877	3
CORE 90208	Interdisciplinary Engagement: American Experiences-History	3 to 4

Political Science

POLS 34102	Introduction to American Government and Politics	3
CORE 90209	Interdisciplinary Engagement: American Experiences-Political Science	3 to 4

Connections

Literature (choose 1 course)

See ENGL (p. 351) and CORE (p. 336) course descriptions.

ENGL 10220	Introduction to Literature	3
CORE 90210	Interdisciplinary Engagement: Literature	3 to 4

Fine Arts (choose 1 course)

See ART (p. 315), MUS (p. 393), THEA (p. 425), and CORE (p. 336) course descriptions.

ART 13102	Art Appreciation	3
ART 13109	Survey of Art I: Prehistory through Medieval Art	3
ART 13111	Survey of Art II: Renaissance to the Present	3
MUS 19201	The Enjoyment of Music	3
MUS 19202	Jazz Appreciation	3

MUS 19222	American Popular Music	3
THEA 43101	Theatre Appreciation	3
CORE 90211	Interdisciplinary Engagement: Fine Arts	3 to 4

Social and Behavioral Sciences (choose 2 courses - one from each of two different groups)

See AGRI (p. 309), PSYC (p. 409), GEOG (p. 358), SOC (p. 422), ECON (p. 342), and CORE (p. 336) course descriptions.

Economics

AGRI 03102	Introductory Agricultural Economics	3
ECON 52130	Survey of Economics	3
ECON 52150	Principles of Macroeconomics	3

Psychology

PSYC 08103	General Psychology	3
PSYC 08299	Educational Psychology	3

Geography

GEOG 32101	Introduction to Geography	3
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Sociology

SOC 35101	General Sociology	3
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Anthropology

SOC 35108	General Anthropology	3
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Interdisciplinary

CORE 90212	Interdisciplinary Engagement: Social/Behavioral Sciences	3 to 4
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Life Sciences (choose 1 course with corresponding laboratory)

See AGRI (p. 309), BIOL (p. 322), and CORE (p. 336) course descriptions.

AGRI 03130	Plant Science	4
BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CORE 90213	Interdisciplinary Engagement: Life Sciences	3 to 4

Note: AGRI 03130 and CORE 90213 have the lab included.

Physical Sciences (choose 1 course with corresponding laboratory)

See CHEM (p. 329), PHYS (p. 404), GEOL (p. 361), PHSC (p. 403), and CORE (p. 336) course descriptions.

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
PHSC 40102	The Physical Sciences	3
PHSC 40103	Physical Science Laboratory	1
PHSC 40122	Descriptive Astronomy	3
PHSC 40123	Descriptive Astronomy Laboratory	1
CORE 90214	Interdisciplinary Engagement: Physical Sciences	3 to 4

Note: CORE 90214 has lab included.

Total Credit Hours: 48-52

Interdisciplinary Engagement courses are special offerings which are cross-disciplinary. Availability of these courses and their disciplinary pairings will be posted online. Check with your advisor concerning details. Students cannot take more than three Interdisciplinary Engagement courses to fulfill the requirements of The Northwest Core.

Note: Students who hold an associate of arts degree from a regionally-accredited institution will have satisfied The Northwest Core with the exception of Digital Literacy and Global Experiences groups, and courses required by their specific academic program(s) and the government requirement stated in the Graduation Policies and Requirements (p. 49) section of this catalog.

Students who have completed the 42-hour block at a Missouri college/university will have satisfied The Northwest Core with the exception of the Digital Literacy and Global Experiences groups, and courses required by their specific academic program(s).

Undergraduate Degrees

Bachelor of Arts

The curriculum leading to the Bachelor of Arts degree emphasizes the fine arts, languages, literature, history, and the related social studies, and is often chosen as a pre-professional curriculum by those students who desire a general education, or for entrance into the world of law, the ministry or other professions.

The number of hours in the major, minor, and elective categories will vary depending on the major and minor selected. The Bachelor of Arts degree requires a minimum of 32 semester hours in courses numbered above 300.

Approved majors for the Bachelor of Arts degree are listed in the departments.

B.A. Degree

Requirements

The Northwest Core	48 to 52
Specific Requirement: One Modern Language	9
Major, Major/Minor, or Major/Major Requirements	54 to 60
Electives and Other Departmental Requirements	3 to 13

The Northwest Core (p. 65)

Modern Language: Please see the “Language Requirement” (p. 81) statement within the Language, Literature, and Writing Department.

Total Credit Hours: 124

Bachelor of Fine Arts

The Bachelor of Fine Arts degree with a Major in Art is offered as a program of study emphasizing professional preparation in the studio areas of art. Within the 72 semester hours required for the major, the student must select a specialization (from ceramics, drawing, painting, photography, printmaking, sculpture, fibers, or graphic design).

For the B.F.A. degree, a minimum of 40 semester hours must be completed in courses numbered above 300.

B.F.A. Degree

Requirements

The Northwest Core	48 to 52
Comprehensive Major in Art	72
Electives and Other Departmental Requirements	4

The Northwest Core (p. 65)

Total Credit Hours: 124

Bachelor of Music Education

Completion of this curriculum, other University requirements, and minimum overall grade point average qualifies a student to receive a Bachelor of Music Education degree. Please reference the Professional Education Handbook.

The Bachelor of Music Education degree requires a minimum of 40 semester hours in courses numbered above 300. A minimum total of 124 academic hours are required for this degree.

All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education.

The Bachelor of Music Education degree is available with these majors: Instrumental Music K-12, Vocal Music K-12.

B.M.E. Degree

Requirements

The Northwest Core	48 to 52
Major Requirements	58 to 60
Professional Education Requirements	24
Degree Requirement	3

The Northwest Core (p. 65)

Major Requirements: see Department of Fine and Performing Arts (p. 96) section of this catalog.

Total Credit Hours: 124

Bachelor of Science

The curriculum leading to the Bachelor of Science degree emphasizes mathematics and the natural sciences and offers a pre-professional program for mathematicians, physicists, biologists, physicians, nurses, psychologists, and business administrators.

The number of hours in the major, minor, and elective categories will vary depending on the major and minor selected. Forty semester hours of courses numbered above 300 are required.

B.S. Degree

Requirements

The Northwest Core	48 to 52
Major, Major/Minor, or Major/Major Requirements	55 to 60
Electives and Other Departmental Requirements	12 to 21

The Northwest Core (p. 65)

Total Credit Hours: 124

Bachelor of Science in Education

Completion of this curriculum, other University requirements, and minimum overall grade point average qualifies the student to receive a Bachelor of Science in Education degree. Please reference the Professional Education Handbook.

The Bachelor of Science in Education degree requires a minimum of 40 semester hours in courses numbered above 300. A minimum total of 124 academic hours are required for this degree.

All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education.

Specific requirements within, or in addition to, the General Education and Institutional requirements, must be taken for teacher certification.

Students pursuing a Bachelor of Science in Education degree may follow one of the five following programs. Listed below each program are areas of certification which may be followed under that particular program. Please refer to the page numbers listed for specific general education requirements. Degree requirements for each program are shown here.

Program

Elementary

Art (Certifies Grades K-9)

Elementary (Certifies Grades 1-6)

Early Childhood (Certifies Birth to Grade 3)

Early Childhood Special Education (Certifies Birth to Grade 3)

Physical Education (Certifies Grades K-9)

Spanish (Certifies Grades K-9)

Special Education: Cross Categorical (Certifies Grades K-12)

Middle School

Agriculture (Certifies Grades 5-9)

Business Education (Certifies Grades 5-9)

Speech/Theatre (Certifies Grades 5-9)

Language Arts (Certifies Grades 5-9)

Mathematics (Certifies Grades 5-9)

Science (Certifies Grades 5-9)

Social Science (Certifies Grades 5-9)

Secondary

Agriculture (Certifies Grades 9-12)

Art (Certifies Grades 9-12)

Business (Certifies Grades 9-12)

English (Certifies Grades 9-12)

Health (Certifies Grades 9-12)

Mathematics (Certifies Grades 9-12)

Science: Biology, Chemistry, or Earth Science (Three separate programs) (Certifies Grades 9-12)

Social Science (Certifies Grades 9-12)

Speech/Theatre (Certifies Grades 9-12)

Unified Science: Biology, Chemistry, or Earth Science (Three separate programs) (Certifies Grades 9-12)

Elementary/Secondary

Art (Certifies Grades K-12)

Physical Education (Certifies Grades K-12)

Spanish (Certifies Grades K-12)

Total Credit Hours: 124

Information regarding admittance to teacher education, advanced standing requirements, directed teaching, and certification is located within the School of Education (p. 266) section of this catalog.

B.S.Ed. Requirements Matrix

Degree Requirements		Elementar y	Midl e Schoo l	Special Educatio n	Secondar y	Elementary / Secondary
Foundations for Teaching	PSYC 08303	•	•	•	•	•
	PSYC 08312	◆		■		
	PSYC 08317		•			
	PSYC 08322			■	•	•
	PSYC 08333	☆		■		
	EDUC 61461	•	•	•	•	•
	EDUC 61462				•	•
	EDUC 61570		•			
	EDCI 62301	•		•		
	EDCI 62371	•	•	•	•	•
Teaching Methods	EDCI 62511		•			
	EDUC 61520		•	×	•	•
	EDUC 61521				•	•
	EDCI 62216	•		•		
	EDCI 62320	•				
	EDCI 62353		•	▲	•	•
	EDCI 62356	•	•	•		
	EDCI 62380	•		•		
	EDCI 62410	•		•		
	EDCI 62420	•				
	EDCI 62430		•			
	ART 13380	•				
	MUS 19380	•				
	MATH 17471	•		•		
	HPER 22238	•		•		
	SCED 28380	•		•		
	Subject Area Methods		•	•	•	•
Clinical Experiences	EDCI 62211	•				
	EDCI 62407	•		•		
	EDCI 62456	•		•		
	EDCI 62444			•		
	EDCI 62591	•	•			
	EDUC 61260 or HPER 22260*				•	•
	EDUC 61262		•			
	EDUC 61360 or HPER 22360*				•	•
	EDUC 61362		•			
	EDUC 61470					•

	EDUC 61471	●				
	EDUC 61472				●	
	EDUC 61474		●			
	EDUC 61481			●		
	EDUC 61482			●		
Degree Require	Specific Requirement	★	★	★	★	★

In addition, General Education, Institutional and Major or Major/Minor Requirements must be filled.

KEY

●	required
◆	or 08-333
☆	or 08-312
■	08-333 or 312 and 322
▲	or 62-553
✕	62-540
l	62-211 or 61-260 and 360 or 61-262 and 362
★	61-569
*	PE Majors Only

Bachelor of Science in Clinical Laboratory Sciences
In conjunction with approved hospitals and medical centers.

The curriculum leading to the Bachelor of Science in Clinical Laboratory Sciences degree emphasizes biology and chemistry. Minimum academic prerequisites are established by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and are taken on the Northwest campus during the first three years along with other courses required by the University. The fourth year (senior year) is a structured educational program in an affiliated clinical laboratory. The clinical program is accredited through NAACLS. Upon satisfactory completion of the clinical program, a minimum of 30 hours of credit are granted and the student is awarded a B.S. in Clinical Laboratory Sciences degree. Acceptance into an affiliated program is competitive and will be determined by the quality of academic work completed by the student during the first three years of study. Admission to the clinical program is decided entirely by the hospitals. Acceptance into the University program does not guarantee acceptance of the student by an affiliated clinical program.

Students who already have a bachelor’s degree and who wish to enter the field may do so by applying directly to the hospital that has an approved program. Applicants who have completed minimum requirements seven or more years before application must update microbiology and biochemistry. If a B.S. in Clinical Laboratory Sciences is desired, then University requirements for the degree must also be fulfilled.

Complete application deadlines vary with the clinical program. Programs should be contacted during the Spring semester prior to the year you want to start. As an example, application deadlines can vary from July 1st to October 15th. Applications are processed through the program director/education coordinator of the clinical program.

Selection is done by each clinical program. Criteria include state of health, academic performance, and personal characteristics. Usually, a 2.5 minimum grade point average is required.

Enrollment is limited by the class size of each clinical program. Costs vary with each clinical program. Upon graduation, students are eligible to take a national certification examination. Passing the examination is not a condition for receiving the B. S. in Clinical Laboratory Sciences

degree. Financial assistance varies with each clinical program. The student should contact each program and the Northwest Office of Scholarships and Financial Assistance.

Hospitals and Officials

Hospitals and officials in association with the Clinical Laboratory Sciences degree:

Des Moines, Iowa

Mercy College of Health Sciences Clinical Laboratory Science Program
Kyla Dippold, MS, MLS (ASCP), Program Chair and Assistant Professor

Kansas City, Missouri

St. Luke's Hospital of Kansas City - Clinical Laboratory Science Program
Jane Rachel, MA, MLS (ASCP), Program Director

North Kansas City, Missouri

North Kansas City Hospital - School of Clinical Laboratory Science
Marisa K. James MA, MLS (ASCP), Program Director

B.S. in Clinical Laboratory Sciences

Requirements

The Northwest Core	48 to 52
Science and Math	47 to 48
Clinical Laboratory Sciences Courses at Approved Teaching Hospital	30

Subtotal: 124

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Subtotal: 48-52

Collateral Courses

CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1

Subtotal: 19

Required Courses

BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4
	OR	
BIOL 04440	Molecular Biology	4
	OR	

MATH 17114	General Statistics	3
BIOL 04350	Genetics	4
BIOL 04438	Human Physiology	4
BIOL 04444	Immunology	5
		Subtotal: 28-29

Clinical Laboratory Sciences

In conjunction with approved hospitals and medical centers.

Subtotal: 30

Total Credit Hours: 124

Bachelor of Technology

The curriculum leading to the Bachelor of Technology degree provides for the transfer of vocational or technical coursework taken as part of a one or two-year technical certificate, Associate of Applied Science or an eligible technical Associate of Science degree program from a regionally-accredited college. The curriculum is designed to provide the additional general and specific education necessary for technicians with vocational or ‘non-college transfer’ certificate/degrees to earn a bachelor’s degree.

The Bachelor of Technology degree requires a minimum of 24 semester hours in courses numbered above 300. A minimum of 30 semester hours must be completed in residence, with the last 10 hours of academic work completed at Northwest. A minimum total of 124 earned academic hours and a minimum overall and Northwest grade point average of 2.0 are required to qualify for the degree.

Bachelor of Technology

Requirements

A program of study for candidates who have completed a one-year certificate program will be developed with the following framework:

Northwest Core Requirements	30
Global Experiences/Digital Literacy	6
Emphasis	39
Transferred or Directed Electives	49
Subtotal: 124	

A.A.S. Requirements

A program of study for candidates who have completed a two-year certificate program, Associate of Applied Science degree, or eligible technical Associate of Science degree will be developed with the following framework:

Northwest Core Requirements	30
Global Experiences/Digital Literacy	6
Emphasis	24
Transferred or Directed Electives	64
Subtotal: 124	

B.T. Eligibility Requirements:

Only students who have earned approved technical certificates or degrees are eligible for admission into the Bachelor of Technology program:

One-year technical certificate from a community/junior college

Two-year technical certificate from a community/junior college
 Associate of Applied Science degree
 Associate of Science degree (eligible technical programs only)

Global Experiences/Digital Literacy Requirements:

Students must complete three hours from the area of Global Experiences and three hours from the Digital Literacy categories in The Northwest Core.

Northwest Core Requirements:

All candidates for the Bachelor of Technology degree will complete 30 hours of studies from the Northwest Core which must include:

Courses

ENGL 10111	Composition I: Academic Literacies	3
COM 29102	Fundamentals of Oral Communication	3
HIST 33155	The United States to 1877	3
POLS 34102	Introduction to American Government and Politics	3

Additional specific Northwest Core requirements set forth by the emphasis department.

After satisfying the above specified Northwest Core requirements, the student will complete additional Northwest Core courses (p. 65) to total the required 30 hours.

Note: ENGL 10110 Introduction to College Writing is a prerequisite for students who do not meet placement criteria for ENGL 10111.

Bachelor of Technology Emphasis:

Bachelor of Technology students who have earned a one-year certificate will complete a minimum of 39 hours of coursework at Northwest in their chosen emphasis area. Bachelor of Technology students who have earned a two-year certificate, Associate of Applied Science degree or eligible technical Associate of Science degree will complete a minimum of 24 hours of coursework at Northwest in the chosen emphasis area. Specific coursework requirements with an emphasis are determined by the emphasis department and may be obtained from the B.T. Advisors listed below.

Directed Electives:

Bachelor of Technology students will choose general electives to reach the required 124 total hours from those courses outlined by the emphasis department.

B.T. Advisors:

Agriculture—Rod Barr

Computer Science—Carol Spradling

Child and Family Studies, Food Service—Lauren Leach-Steffens

Geographical Information Systems—Patricia Drews

Geography—Theodore Goudge

Management Information Systems—Nancy Zeliff

Marketing/Management—Chi Lo Lim

Business Technology—Judy Clark

Academic Structure

College of Arts and Sciences

- Department of Language, Literature, and Writing (p. 81)
- Department of Fine and Performing Arts (p. 96)
- Department of Humanities and Social Sciences (p. 122)
- Department of Mathematics and Statistics (p. 152)
- Department of Military Science (p. 162)
- Department of Natural Sciences (p. 166)
- Honors Program (p. 205)

Professional Schools

- School of Agricultural Sciences (p. 207)
- Melvin D. and Valorie G. Booth School of Business (p. 220)
- School of Communication and Mass Media (p. 235)
- School of Computer Science and Information Systems (p. 251)
- School of Education (p. 266)
- School of Health Science and Wellness (p. 282)

The College of Arts and Sciences

Associate Provost: Dr. Michael Steiner

The College of Arts and Sciences includes the Departments of Language, Literature, and Writing; Fine and Performing Arts; Humanities and Social Sciences; Mathematics and Statistics; Military Science; Natural Sciences; and the Honors Program.

The College of Arts and Sciences provides skills in communication, critical thinking, problem solving, managing information, and valuing; a foundation in liberal arts, science and mathematics; individual professional preparation in selected fields; pre-professional education; and cultural enrichment. The college offers a wide spectrum of undergraduate majors, minors, and cooperative programs with other units of the University. Additionally, many individualized programs are available to professionally-oriented students. Graduates are readily accepted into graduate and professional schools or placed in positions compatible with their field of study.

Programs in the College of Arts and Sciences provide a rich collegiate experience and the technical and intellectual skills necessary for professional competence. The traditional classroom setting is complemented by laboratory classes and field experiences, enabling the student to put into immediate practice the concepts and understandings gained. Through these processes, students have opportunities to grasp the value of individual integrity, respect for others' ideas, sensitivity to cultural diversity and to engage in personal growth.

General education and subject-field courses offered by the college assure an understanding of the responsibilities of citizenship, the role of the scientific process and problem solving in daily living, and awaken students to the values of their own cultural heritage and that of others. These courses assist students in learning to apply and expand current knowledge in educational experiences that make students better contributors to society and assists them in leading more rewarding lives. Students learn as individuals and as members of teams to communicate ideas effectively, apply emerging technologies, deal with abstractions, develop analytical skills, synthesize ideas, evaluate current actions against historical perspectives, develop discriminating aesthetic judgments and give form to their imaginations.

International Study / 80

Study Abroad Coordinator: Jeaneth Puriel

International student exchange, study abroad and internship programs support the array of academic programs at Northwest. Whether a faculty-led short term program, a summer program, a trimester or academic year, students have the opportunity to earn Northwest credit abroad, at the same time they are exposed to a new educational system and immersed in a new culture. Usually taken in the sophomore or junior year, students broaden their horizons by traveling to an international location to study with local citizens and/or international students to experience global living.

Bilateral, direct and consortium agreements are in place and continue to be updated to satisfy the need of students. Study Abroad programs include Globalinks, International Student Exchange Program (ISEP), Magellan Exchange, Mexico Exchange, Missouri-London Program, Asia Program, Birmingham City University (BCU), and faculty-led short term programs.

Language, Literature, and Writing Department

Chairperson: Michael Hobbs

Faculty: Daniel Biegelson, Kori Binette, Ashley Davis Black, Richard Black, Stancy Bond, Wayne Chandler, Eric Dickey, Melissa Elston, John Gallaher, Robin Gallaher, Tom Hardee, Joseph Haughey, Brenda Lewis, Jeffrey Loomis, Ildiko Olasz, José Palacios Perez, Beth Richards, Luke Rolfes, Marcy Roush, Brenda Ryan, Jenny Rytting, Richard Sonnenmoser, Christopher Strelluf, Kenton Wilcox

Statement of Mission

The Department of Language, Literature, and Writing, in all its programs and classes, focuses on student success—every student, every day.

Degree Programs

The Department of Language, Literature, and Writing offers seven majors, three undergraduate degree programs and five minors.

The 33-hour Bachelor of Arts in English provides a course balance of advanced writing and literature that is excellent preparation for the study of law, business and medicine; for careers in teaching, publishing, writing, advertising and journalism; and for management and other positions requiring interpretive, diagnostic and analytic problem-solving abilities.

The 36-hour Bachelor of Arts in English with an emphasis in Creative Writing provides traditional curriculum of literary study supplemented by foundational coursework in the practice and theory of creative writing.

The 36-hour Bachelor of Science in Writing provides extensive writing practice in a variety of modes and genres. Students will practice writing across the writing studies spectrum, from workplace-oriented writing to literary-creative writing, from professional reports to poems. This degree may lead to graduate or professional study, especially in law and business and in graduate programs that value extensive background in writing. Other students may pursue professional careers editing, writing, translation, publishing, and communications.

The 30-hour Bachelor of Arts in Writing provides extensive writing practice in a variety of modes and genres. Students will practice writing across the writing studies spectrum, from workplace-oriented writing to literary-creative writing, from professional reports to poems. This liberal arts degree in writing may lead to graduate or professional study, especially in law and business and in graduate programs that value an extensive background in writing. Other students may pursue professional careers in editing, writing, translation, publishing, and communications.

The 36-hour Bachelor of Science in Writing with an Emphasis in Professional Writing provides extensive writing practice in a variety of modes and genres, with more extensive study of writing as manifest in different professional contexts. Students will practice writing across the writing studies spectrum, from workplace-oriented writing to literary-creative writing, from professional reports to poems. This degree in writing may lead to graduate or professional study, especially in law and business and in graduate programs that value an extensive background in writing. The emphasis in professional writing has been designed for students interested in coursework and professional careers in technical writing, publishing, communications, and business management.

The 33-hour Bachelor of Arts in Writing with an emphasis in Creative Writing and Publishing provides extensive writing practice in a variety of modes and genres. Students will practice writing across the writing studies spectrum, from workplace-oriented writing to literary-creative writing, from professional reports to poems. This liberal arts degree in writing may lead to graduate or professional study, especially in law and business and in graduate programs that value an extensive background in writing. The emphasis in creative writing and publishing has been designed for students interested in coursework and professional careers in editing, writing, translation, publishing, and communications.

The 39-hour Bachelor of Science in Education in English and the 54-hour Comprehensive Bachelor of Science in Education in English both provide extensive writing experience, familiarity with the full chronological range of American and British literature, knowledge of traditional and modern grammars, rhetorical theory and history of the English language. Either major, when completed with the requirements of the B.S.Ed. Secondary Program, meets Missouri secondary school English teaching certification standards.

Bachelor of Arts and Bachelor of Science degrees are available in Spanish. These require 37 hours of study in the discipline. A minor or collateral coursework is required for these majors.

The 34-hour Bachelor of Science in Education degree in Spanish provides preparation for the teaching of the language, and must be completed under the requirements for the B.S.Ed. degree, Elementary/Secondary Program, which meets the Missouri teacher certification standards for the teaching of the target language in grades K-12. A strong literature preparation is encouraged in order for success on the state examination.

The 24-hour Minor in Writing complements any major whose study is enhanced by improved written expression. The minor includes Mass Communication electives and a range of advanced-study opportunities in creative writing, technical writing, popular media and language.

The 24-hour Minor in English enhances students' analytic and communicative skills and prepares them for those career fields named above.

The 30-hour Minor in English is an attractive choice for students majoring in another teaching area such as foreign languages, social science, speech, art or music. This minor offers a balance of writing and literature courses similar to the Bachelor of Arts in English and, when completed with the requirements of the B.S.Ed. degree, Secondary Program, meets Missouri secondary school English teaching certification standards.

A minor in Spanish is required to complete 24 hours of study in Languages and to follow a prescribed series of courses. The minor taken under either the B.S.Ed. degree, Elementary/Secondary or Elementary Programs meets Missouri teacher certification degree requirements for a K-9 Spanish endorsement.

A minor in Deaf Studies is available to students majoring in another area. This minor requires 24 hours of study in American Sign Language as well as special education.

An Individualized Language minor (27 hours) allows students to study any language (other than English) through an immersion program outside of the United States. The program of study must be approved by the Department of Language, Literature, and Writing and the Study Abroad Office in advance.

Test-Out Policy

Students may challenge their placement in ENGL 10110 Introduction to College Writing by passing a writing test. Students should contact the department for additional details. Credit may be granted for AP or IB exams. See Credit for External Examinations (p. 16) and International Baccalaureate Credit (p. 18) for the specific policy.

Test-out is also available for LANG 14131, LANG 14132, LANG 14141, LANG 14142, LANG 14151, LANG 14251 or LANG 14252. Students should consult with the Languages faculty regarding appropriate test-out level. See the department secretary for further details. Languages credit may be granted for AP, CLEP or IB exams. See Credit for External Examinations (p. 16), CLEP Subject Examinations (p. 17), and International Baccalaureate Credit (p. 18).

Language Requirement

Students should follow the course sequences and listed prerequisites for language courses. Permission to take a course out of sequence to satisfy the "B.A. Specific Requirement" must be approved in advance by petition to the chair of the department. Contact the department for a petition form.

The nine hours of Modern Language required to graduate with a Bachelor of Arts degree may also be used to satisfy the total required hours for a major or minor in languages. LANG 14141 and LANG 14142 are prerequisite courses; these may be counted toward the Spanish B.A. major, but not for the Spanish B.S., Spanish B.S.Ed., or Spanish minor.

Language courses meeting the Multicultural/Diversity Competency requirement may also be counted toward the B.A. degree Language Requirement.

Portfolio Requirement

Successful completion of all non-English modern language degrees requires the presentation of an academic and professional portfolio during the student's senior year. Immediately upon declaring a major, the student must request a portfolio packet from his/her advisor.

Language Majors

In order to qualify for advanced standing in language, students must (1) not be on academic probation or suspension and (2) have completed six hours of 200-level courses or the equivalent in a language.

English / 10

Writing Major, 36 hours: B.S.—Minor Required

CIP: 231301

Requirements

The Northwest Core (48-52 hours)

Writing Core Requirements

ENGL 10210	Introduction to Creative Writing	3
ENGL 10203	Writing and Rhetoric	3
ENGL 10315	Writing for the Professions	3
ENGL 10403	Studies in Language OR	3
ENGL 10504	Language and Linguistics	3
ENGL 10410	Professional Portfolio Preparation	3

Approved electives

21 hours of writing, literature, and language coursework from approved 300, 400, and 500-level writing courses, literature courses, and 100 and 200-level language courses, with no more than 6 hours from literature courses, no more than 6 hours from language courses, and no more than 3 hours from approved writing coursework in another department.

Approved electives 21

Total Credit Hours: 36

Writing Major, 30 hours: B.A.—Minor Required

CIP: 231301

Requirements

Writing Core Requirements

ENGL 10210	Introduction to Creative Writing	3
ENGL 10203	Writing and Rhetoric	3
ENGL 10315	Writing for the Professions	3
ENGL 10403	Studies in Language OR	3

ENGL 10504	Language and Linguistics	3
ENGL 10410	Professional Portfolio Preparation OR	3
ENGL 10405	Senior Seminar	3

Literature

Choose ONE course from the following:

ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romantics to the Present	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10226	Modern and Contemporary World Literature	3
ENGL 10305	The Literary Critic's Craft	3
ENGL 10341	Literature and Film	3
ENGL 10351	Science Fiction Literature	3
ENGL 10372	Introduction to Shakespeare	3
ENGL 10520	Studies in Early British Literature	3
ENGL 10331	The Bible and Literature	3
ENGL 10343	Survey of Women's Literature	3
ENGL 10590	Young Adult Literature	3

Approved electives

Choose 12 hours from the following:

	An additional course from the Literature list of courses above	3
ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3
ENGL 10316	Creative Writing: Playwriting	3
ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10380	Practicum in Teaching Writing Skills	1
ENGL 10414	The Structure and Theory of Creative Writing	3
ENGL 10425	Knacktive	3
ENGL 10430	Writing for the Online Age	3
ENGL 10495	Internship in Writing and Research	1 to 8
ENGL 10501	Writing and Pedagogy	3
ENGL 10512	Publication Skills	3
ENGL 10560	Advanced Creative Writing	3

The Northwest Core (48-52 hours)

Total Credit Hours: 30

Writing Major, Professional Writing Emphasis, 36 hours: B.S.—Minor Required

The offering of this program is contingent upon State approval. First planned offering of this program is Fall 2016.

CIP:

Requirements**The Northwest Core (48-52 hours)****Writing Core Requirements**

ENGL 10210	Introduction to Creative Writing	3
ENGL 10203	Writing and Rhetoric	3
ENGL 10315	Writing for the Professions	3
ENGL 10403	Studies in Language	3

ENGL 10504	OR Language and Linguistics	3
ENGL 10410	Professional Portfolio Preparation	3

Approved Electives

9 hours of writing, literature, and language coursework from approved 300, 400, and 500-level writing courses, literature courses, and 100 and 200-level language courses, with no more than 6 hours from literature courses, no more than 6 hours from language courses, and no more than 3 hours from approved writing coursework in another department.

Approved electives	9
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Professional Writing Emphasis

ENGL 10515	Advanced Writing for the Professions	3
ENGL 10512	Publication Skills	3
ENGL 10495	Internship in Writing and Research	1 to 8
ENGL 10430	Writing for the Online Age	3

Note: ENGL 10495 should be taken for a minimum of 3 credit hours.

Total Credit Hours: 36**Writing Major, Creative Writing and Publishing Emphasis, 33 hours:
B.A.—Minor Required**

The offering of this program is contingent upon State approval. First planned offering of this program is Fall 2016.

CIP:**Requirements****The Northwest Core (48-52 hours)****Writing Core Requirements**

ENGL 10210	Introduction to Creative Writing	3
ENGL 10203	Writing and Rhetoric	3
ENGL 10315	Writing for the Professions	3
ENGL 10403	Studies in Language OR	3
ENGL 10504	Language and Linguistics	3
ENGL 10410	Professional Portfolio Preparation OR	3
ENGL 10405	Senior Seminar	3

Modern and Contemporary Literature

At least ONE course from the following:

ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10246	English Literature: Romanticism to the Present	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10226	Modern and Contemporary World Literature	3
ENGL 10351	Science Fiction Literature	3
ENGL 10341	Literature and Film	3

Literary Traditions

At least ONE course from the following:

ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10305	The Literary Critic's Craft	3
ENGL 10331	The Bible and Literature	3

ENGL 10343	Survey of Women's Literature	3
ENGL 10372	Introduction to Shakespeare	3
ENGL 10520	Studies in Early British Literature	3
ENGL 10590	Young Adult Literature	3

Creative Writing and Publishing Emphasis

Choose 12 hours from the lists below.

At least ONE of the courses from the following:

ENGL 10425	Knacktive	3
ENGL 10495	Internship in Writing and Research	1 to 8
ENGL 10512	Publication Skills	3

Note: ENGL 10495, if chosen, should be taken for a minimum of 3 credit hours. On-campus internship experiences are available, by application, with Greentower Press/The Laurel Review. Off-campus internships may also satisfy this requirement.

At least THREE courses from the following:

ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3
ENGL 10316	Creative Writing: Playwriting	3
ENGL 10414	The Structure and Theory of Creative Writing	3
ENGL 10560	Advanced Creative Writing	3

Total Credit Hours: 33

English Core Requirements

Requirements

Courses

ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romantics to the Present	3
ENGL 10372	Introduction to Shakespeare	3
ENGL 10405	Senior Seminar	3

Total Credit Hours: 18

English Major, 33 hours: B.A.—Minor Required

CIP: 230101

Requirements

The Northwest Core (48-52 hours)

Required Courses

English Core Requirements (p. 86)

ENGL 10305	The Literary Critic's Craft	3
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One course from (3):

ENGL 10311	Advanced Composition	3
ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3
ENGL 10315	Writing for the Professions	3
ENGL 10316	Creative Writing: Playwriting	3

Approved electives to total 30 hours (9):

Approved electives	9
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Total Credit Hours: 33

English Major, Creative Writing Emphasis, 36 hours: B.A.—Minor Required

The offering of this program is contingent upon State approval. First planned offering of this program is Fall 2016.

CIP:

Requirements

The Northwest Core (48-52 hours)

Required Courses

English Core Requirements (p. 86)

ENGL 10305	The Literary Critic's Craft	3
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Modern and Contemporary Literature

At least ONE course from the following:

ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10226	Modern and Contemporary World Literature	3
ENGL 10351	Science Fiction Literature	3
ENGL 10341	Literature and Film	3

Literary Traditions

At least ONE course from the following:

ENGL 10331	The Bible and Literature	3
ENGL 10343	Survey of Women's Literature	3
ENGL 10520	Studies in Early British Literature	3
ENGL 10590	Young Adult Literature	3

Creative Writing Emphasis

At least THREE courses from the following for a total of at least 9 hours:

ENGL 10210	Introduction to Creative Writing	3
ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3
ENGL 10316	Creative Writing: Playwriting	3
ENGL 10414	The Structure and Theory of Creative Writing	3
ENGL 10495	Internship in Writing and Research	1 to 8
ENGL 10560	Advanced Creative Writing	3

Note: ENGL 10495, if chosen, should be taken for a minimum of 3 credit hours. On-campus internship experiences are available, by application, with Greentower Press/The Laurel Review. Off-campus internships may also satisfy this requirement.

Total Credit Hours: 36

English Major, 39 hours: B.S.Ed.—Minor Required (Certifies Grades 9-12)

CIP: 131305

Requirements

The Northwest Core (48-52 hours)

Required Courses

English Core Requirements (p. 86)

ENGL 10321	Teaching Reading in Middle and Secondary English Classrooms	3
ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10404	Schoolhouse Grammars and Pedagogy	3
ENGL 10590	Young Adult Literature	3
ENGL 10504	Language and Linguistics OR	3
ENGL 10403	Studies in Language	3
ENGL 10210	Introduction to Creative Writing OR	3
ENGL 10203	Writing and Rhetoric	3

Students pursuing this degree may take either all four survey courses listed under English Core Requirements (ENGL 10233, ENGL 10234, ENGL 10245, ENGL 10246) or may take three of those survey courses and one of either ENGL 10224 Multiethnic Literature of the United States or ENGL 10226 Modern and Contemporary World Literature.

Approved literature courses numbered 300 or above (3)

Approved Literature courses	3
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ENGL 10580 Methods in Secondary School English must be completed as part of the professional education requirements.

Total Credit Hours: 39

This major, when completed under the B.S.Ed. Secondary Program, meets Missouri secondary school English teaching certification standards.

English Education Comprehensive Major, 57 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)

CIP: 131305

Requirements

The Northwest Core (48-52 hours)

Required Courses

English Core Requirements (p. 86)

ENGL 10210	Introduction to Creative Writing	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10305	The Literary Critic's Craft	3
ENGL 10321	Teaching Reading in Middle and Secondary English Classrooms	3
ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10404	Schoolhouse Grammars and Pedagogy	3
ENGL 10590	Young Adult Literature	3
ENGL 10504	Language and Linguistics OR	3
ENGL 10403	Studies in Language	3

B.S.Ed. in English students may not use ENGL 10224 to fulfill a Northwest Core requirement.

Approved writing course numbered 300 or above (3)

Approved Writing Elective	3
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Approved literature courses numbered 300 or above (6)

Approved Literature electives	6
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Approved English electives to total 57 hours (6)

Approved Electives

6

ENGL 10580 Methods in Secondary School English must be completed as part of the professional education requirements.

Total Credit Hours: 57

This major, when completed under the B.S.Ed. degree, Secondary Program, meets Missouri secondary school English teaching certification standards.

English Minor, 24 hours

CIP: 230101

Requirements**Required Courses****Two courses from:**

ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romantics to the Present	3

One course from:

ENGL 10210	Introduction to Creative Writing	3
ENGL 10311	Advanced Composition	3
ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3
ENGL 10315	Writing for the Professions	3
ENGL 10316	Creative Writing: Playwriting	3

Approved electives to total 24 hours (15)

(Must include 9 hours of upper-level English)

Approved Electives

15

At least 12 hours of minor coursework must come from literature courses.

Total Credit Hours: 24

Students are encouraged to consider specializing by choosing primarily courses that fall within a particular area of interest, such as American Literature (ENGL 10224, ENGL 10233, ENGL 10234, ENGL 10463, ENGL 10550), British Literature (ENGL 10245, ENGL 10246, ENGL 10372, ENGL 10462, ENGL 10520, ENGL 10530), World Literature (ENGL 10226, ENGL 10331, ENGL 10464, ENGL 10540, LANG 14582), Linguistics (ENGL 10403 & ENGL 10501), or Creative Writing (ENGL 10210, ENGL 10312, ENGL 10313, ENGL 10314, ENGL 10316, ENGL 10414, ENGL 10560). However, such specialization is not required.

Writing Minor in English, 24 hours

CIP: 230501

Requirements**Required Courses**

ENGL 10210	Introduction to Creative Writing	3
ENGL 10311	Advanced Composition	3
ENGL 10315	Writing for the Professions	3

Approved Electives from the following (15):

Any two English Department literature courses for a total of 6 hours

ENGL 10312	Creative Writing: Creative Nonfiction	3
ENGL 10313	Creative Writing: Fiction	3
ENGL 10314	Creative Writing: Poetry	3

ENGL 10316	Creative Writing: Playwriting	3
ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10380	Practicum in Teaching Writing Skills	1
ENGL 10403	Studies in Language	3
ENGL 10414	The Structure and Theory of Creative Writing	3
ENGL 10419	Directed Writing	1 to 4
ENGL 10430	Writing for the Online Age	3
ENGL 10495	Internship in Writing and Research	1 to 8
ENGL 10501	Writing and Pedagogy	3
ENGL 10512	Publication Skills	3
ENGL 10560	Advanced Creative Writing	3
MMED 20227	Reporting	3
MMED 20327	Advanced Reporting	3
MMED 20358	Feature Writing	3

Total Credit Hours: 24

**Language Arts Concentrations for Middle School Major
(Certifies Grades 5-9 when completed with the Middle School Major)**

CIP: 131305

Requirements

Required Courses

(Meets requirements of Major in Middle School)

ENGL 10321	Teaching Reading in Middle and Secondary English Classrooms	3
ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10404	Schoolhouse Grammars and Pedagogy	3
ENGL 10590	Young Adult Literature	3
COM 29325	Listening Behavior and Skills	3
THEA 43460	Creative Dramatics	3

Electives

Choose 2 from the following:

ENGL 10210	Introduction to Creative Writing	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romanticism to the Present	3
ENGL 10372	Introduction to Shakespeare	3

Total Credit Hours: 24

ENGL 10580 Methods in Secondary School English is the required subject methods course.

English Minor, 30 hours: Certifiable

See Professional Education Requirements (p. 272)

CIP: 131305

Requirements

Required Courses

ENGL 10210	Introduction to Creative Writing	3
ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romanticism to the Present	3

ENGL 10322	Introduction to the Teaching of Writing	3
ENGL 10404	Schoolhouse Grammars and Pedagogy	3
ENGL 10590	Young Adult Literature	3
ENGL 10504	Language and Linguistics OR	3
ENGL 10403	Studies in Language	3

ENGL 10233: Students pursuing this minor may either take all four of these survey courses (ENGL 10233, ENGL 10234, ENGL 10245, ENGL 10246) or may take three of these survey courses and one of either ENGL 10224 Multiethnic Literature of the United States or ENGL 10226 Modern and Contemporary World Literature.

Approved electives to total 30 hours

Total Credit Hours: 30

ENGL 10580 Methods in Secondary School English must be completed as part of the professional education requirements.

This minor, when completed under the B.S.Ed. Secondary or Elementary/Secondary Programs, meets Missouri teacher certification standards for grades 9-12.

Languages / 14

Spanish Major, 34 hours: B.A.—Minor Required or Collateral Field CIP: 160905

Requirements

The Northwest Core (48-52 hours)

Required Core

LANG 14242	Intermediate Spanish for Communication and Culture I	3
LANG 14243	Intermediate Spanish for Communication and Culture II	3
LANG 14344	Advanced Conversation in Spanish	3
LANG 14345	Advanced Spanish Composition	3
LANG 14448	Survey of Spanish Language Literature OR	3
LANG 14493	Latin American Literature	3
LANG 14485	Senior Seminar for Modern Language Majors	1

LANG 14242: Appropriate for most students with four or more years of high school Spanish.

LANG 14141 and LANG 14142 are prerequisite courses. These may count toward the major.

Advanced Electives (18)

(Minimum of 9 hours from the following to be taken on the Northwest campus or from Northwest faculty. Courses may be taken concurrently.)

LANG 14347	Study Abroad for Spanish or French	1 to 4
LANG 14348	Spanish History and Culture	3
LANG 14400	Special Offering	1 to 4
LANG 14401	Special Topics	1 to 3
LANG 14403	Special Topics in Latin American Cinema	3
LANG 14446	Practicum in Spanish	1 to 3
LANG 14447	Latin American Civilization	3
LANG 14448	Survey of Spanish Language Literature	3
LANG 14449	Independent Study in Spanish	1 to 2
LANG 14460	Advanced Studies in Modern Languages	3
LANG 14470	Internship in Languages	1 to 3
LANG 14493	Latin American Literature	3

LANG 14500 Special Offering 1 to 4

Collateral Field in Intercultural Enrichment (24)

(If no minor selected)

ENGL 10311	Advanced Composition	3
ENGL 10224	Multiethnic Literature of the United States	3
LANG 14347	Study Abroad for Spanish or French	1 to 4
GEOG 32445	Geography of Latin America	3
HIST 33375	History of Latin America	3
POLS 34421	International Conflict Resolution	3
MKTG 55438	International Business	3

LANG 14347: Faculty-led trips in other departments, Study Abroad may be counted with departmental approval; upper-level Spanish courses may be substituted for students unable to participate in experiences requiring travel.

Total Credit Hours: 34

Spanish Major, 34 hours: B.S.—Minor Required or Collateral Field

CIP: 160905

Requirements

The Northwest Core (48-52 hours)

Required Core

LANG 14242	Intermediate Spanish for Communication and Culture I	3
LANG 14243	Intermediate Spanish for Communication and Culture II	3
LANG 14344	Advanced Conversation in Spanish	3
LANG 14345	Advanced Spanish Composition	3
LANG 14448	Survey of Spanish Language Literature OR	3
LANG 14493	Latin American Literature	3
LANG 14485	Senior Seminar for Modern Language Majors	1

LANG 14242: Appropriate for most students with four or more years of high school Spanish.

LANG 14141 and LANG 14142 are prerequisite courses. These do not count toward the major.

Advanced Electives (18)

(Minimum of 18 hours from the following; at least 12 hours are to be taken on the Northwest campus or from Northwest faculty. Courses may be taken concurrently.)

LANG 14347	Study Abroad for Spanish or French	1 to 4
LANG 14348	Spanish History and Culture	3
LANG 14400	Special Offering	1 to 4
LANG 14401	Special Topics	1 to 3
LANG 14403	Special Topics in Latin American Cinema	3
LANG 14446	Practicum in Spanish	1 to 3
LANG 14447	Latin American Civilization	3
LANG 14448	Survey of Spanish Language Literature	3
LANG 14449	Independent Study in Spanish	1 to 2
LANG 14460	Advanced Studies in Modern Languages	3
LANG 14470	Internship in Languages	1 to 3
LANG 14493	Latin American Literature	3
LANG 14500	Special Offering	1 to 4

Collateral Field in Intercultural Enrichment (24)

(If no minor selected)

ENGL 10311	Advanced Composition	3
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ENGL 10224	Multiethnic Literature of the United States	3
LANG 14347	Study Abroad for Spanish or French	1 to 4
GEOG 32445	Geography of Latin America	3
HIST 33375	History of Latin America	3
POLS 34421	International Conflict Resolution	3
MKTG 55438	International Business	3

LANG 14347: Faculty-led trips in other departments, Study Abroad may be counted with departmental approval; upper-level Spanish courses may be substituted for students unable to participate in experiences requiring travel.

Total Credit Hours: 34

Spanish Major, 34 hours: B.S.Ed., (Certifies Grades K-12) —Minor Required

CIP: 131330

Requirements

The Northwest Core (48-52 hours)

Required Core

LANG 14242	Intermediate Spanish for Communication and Culture I	3
LANG 14243	Intermediate Spanish for Communication and Culture II	3
LANG 14344	Advanced Conversation in Spanish	3
LANG 14345	Advanced Spanish Composition	3
LANG 14448	Survey of Spanish Language Literature	3
	OR	
LANG 14493	Latin American Literature	3
LANG 14485	Senior Seminar for Modern Language Majors	1

LANG 14242: (Appropriate for most students with four or more years of high school Spanish.)

LANG 14141 and LANG 14142 are prerequisite courses. These do not count toward the major.

Advanced Electives (18)

(Minimum of 18 hours from the following; at least 6 hours are to be taken on the Northwest campus or from Northwest faculty. Courses may be taken concurrently.)

LANG 14347	Study Abroad for Spanish or French	1 to 4
LANG 14348	Spanish History and Culture	3
LANG 14400	Special Offering	1 to 4
LANG 14401	Special Topics	1 to 3
LANG 14403	Special Topics in Latin American Cinema	3
LANG 14446	Practicum in Spanish	1 to 3
LANG 14447	Latin American Civilization	3
LANG 14449	Independent Study in Spanish	1 to 2
LANG 14460	Advanced Studies in Modern Languages	3
LANG 14470	Internship in Languages	1 to 3
LANG 14493	Latin American Literature	3
LANG 14500	Special Offering	1 to 4

Students must take LANG 14480 Methods in Teaching Modern Language as part of their professional education requirements.

Total Credit Hours: 34

Deaf Studies Minor, 24 hours

CIP: 161601

Requirements

Required Courses

LANG 14151	Introduction to American Sign Language and Deaf Culture	3
LANG 14251	American Sign Language I	3
LANG 14252	American Sign Language II	3
LANG 14351	American Sign Language III	3
LANG 14451	American Sign Language IV	3
COM 29336	Nonverbal Communication	3
COM 29553	Language, Speech, and Hearing of the Exceptional Child and Adult OR	3
EDCI 62371	Introduction to Special Education	3
COM 29336:	May be taken concurrently with ASL III.	

Total Credit Hours: 24

Spanish Minor, 24 hours

CIP: 160905

Certifies Grades K-9 when completed on an education degree. See Professional Education Requirements (p. 272).

Requirements

Required Courses

LANG 14242	Intermediate Spanish for Communication and Culture I	3
LANG 14243	Intermediate Spanish for Communication and Culture II	3
LANG 14344	Advanced Conversation in Spanish	3
LANG 14345	Advanced Spanish Composition	3
LANG 14448	Survey of Spanish Language Literature OR	3
LANG 14493	Latin American Literature	3
LANG 14242:	Appropriate for most students with four or more years of high school Spanish.	

Advanced Electives (9)

(Minimum of 6 hours from the following, to be taken on the Northwest campus or from Northwest faculty. These courses may be taken concurrently.)

LANG 14347	Study Abroad for Spanish or French	1 to 4
LANG 14348	Spanish History and Culture	3
LANG 14400	Special Offering	1 to 4
LANG 14401	Special Topics	1 to 3
LANG 14403	Special Topics in Latin American Cinema	3
LANG 14446	Practicum in Spanish	1 to 3
LANG 14447	Latin American Civilization	3
LANG 14448	Survey of Spanish Language Literature	3
LANG 14449	Independent Study in Spanish	1 to 2
LANG 14460	Advanced Studies in Modern Languages	3
LANG 14493	Latin American Literature	3
LANG 14500	Special Offering	1 to 4
LANG 14141 and LANG 14142	are prerequisite courses. These do not count toward the minor.	

Students must take LANG 14480 Methods in Teaching Modern Language as part of their professional education requirements.

Total Credit Hours: 24

Individualized Language Program Minor, 27 hours

CIP: 160101

Students may participate in a language immersion program at an approved foreign higher education institution and count up to 24 semester-equivalent credit hours toward this minor. Partner institutions and courses of study must be approved in advance by the Study Abroad Office and the Department of Language, Literature, and Writing. Coursework must be taught in a target language other than English, and may not be in the student's native language.

At least 24 credit hours of coursework must be in a single non-English target language.

At least 3 credit hours of coursework must be completed through Northwest, either in the target language or in English-language delivered courses related to the target language (e.g., history, culture).

Total Credit Hours: 27

Fine and Performing Arts Department

Chairperson: Joe Kreizinger

Faculty: John Bell, Katheryn Bilbo, Martha Breckenridge, Rebecca Dunnell, Christopher Gibson, Christopher Graves, Patrick Immel, Stephanie Jorandby, Gayla Kobialka, Ernest Kramer, Brian Lanier, Armin Mühsam, Anthony Olson, Sheila Phillips, Robert Pippin, William Richardson, Stuart Robinson, Theo Ross, Pamela Shannon, Kathryn Strickland, Stephen Town, Bobby Tso, Glenn Williams

Statement of Mission

Northwest Missouri State University is a learning-centered community of scholars offering undergraduate and selected graduate programs. The University is committed to preparing broadly educated and engaged citizens for a world of constant change, applying information technology to improve learning processes, and promoting continuous improvement to enhance performance in all its activities. Northwest seeks to expand access to learning and promote research designed to address the needs of our students and stakeholders.

Degree Programs

The Department of Fine and Performing Arts offers twelve majors, six minors and one area of endorsement.

Preamble

The Department of Fine and Performing Arts is comprised of the disciplines of Art, Music, and Theatre. While these disciplines share many common objectives and values, the programs of study require different policies for study in the various majors. For that reason the policies, descriptions, requirements, and offerings are presented by discipline so that all materials related to Art are together, followed by all materials related to Music, followed by all materials related to Theatre.

Art / 13

Statement of Purpose for Art

The five degree programs of the Discipline of Art and Design provide students with the skills needed to accomplish the tasks of their professions and to awaken them to that intellectual level of existence which will cause them to lead fuller, more rewarding lives regardless of the professional area they enter.

Study in these programs offers students the opportunity to learn to communicate ideas effectively, to develop analytical skills, to synthesize ideas, to evaluate implications of present actions against historical perspective, and to develop discriminating aesthetic judgments.

The Discipline of Art has among its quality objectives: (a) to provide an environment conducive to learning and creative production, (b) to develop an understanding and sensitivity to the visual arts of the past and present, (c) to prepare students for careers in the visual arts and design including the teaching of art and design, (d) to furnish the students with sufficient mastery of technical skills to allow for future independent development and creative production, and (e) to prepare students for advanced study in the visual arts.

In addition to the academic programs, the Exhibitions Program and Visiting Artists Series assist in broadening the learning experiences of all students. The exhibitions are shown in the Gallery of the Olive DeLuce Fine Arts Building and are drawn from national as well as regional sources. The Visiting Artists Series brings outstanding artists and art historians to the department where they conduct workshops, give demonstrations, hold discussions, and give slide presentations and lectures that are open to all persons in the University and regional community.

Degree Programs in Art

The Bachelor of Fine Arts with a Comprehensive Major in Art is a program emphasizing professional preparation within the studio areas. This major allows students to take over half of their total degree requirements in art and to experience various studio areas in addition to their specializations.

Specializations are to be selected from ceramics, drawing, painting, photography, printmaking, sculpture or fibers and involve advanced study in both a class format and individualized work.

The Bachelor of Fine Arts in Graphic Design provides introductory and advanced study in graphic design, drawing, painting, digital media, photography, and the opportunity to select from these areas for additional advanced work. The student may take electives outside the art program in such fields as marketing and mass media.

The Bachelor of Science in Education, Elementary/Secondary Program with a Comprehensive Major in Art Education is designed to prepare students to teach art at all levels, kindergarten through grade twelve, and to supervise art in the elementary school. For this degree, students are allowed to take almost one-half of their total degree requirements in art and to have a broad experience within the studio areas. This major program exceeds the minimum Missouri teacher certification standards in art and certifies grades K-12.

The Bachelor of Arts with a Comprehensive Major in Art is a program that is distinctive for its flexibility and combines the major requirements, which constitute almost one-half of the total degree requirements, with a rich and varied selection of general studies.

The Bachelor of Science with a Comprehensive Major in Interactive Digital Media (IDM) and a concentration in Visual Imaging (VI) is a program that will allow students to possess cross-disciplinary knowledge and skills in areas that deal with visual aesthetic understanding and communication, integrated with technological knowledge. Students in the Visual Imaging concentration of the IDM major will understand the fundamental concepts of design, comprehend how visual compositions convey content and meaning, and create computer generated images and animations for digital output.

The Minor in Art (24 hours) provides students majoring in any other department with opportunities to pursue studio and/or art history courses.

The Minor in Elementary Art Education is provided for students pursuing the elementary preparation program who also desire certification for teaching art in the elementary school, junior high, or middle school. This minor is also available to students, in majors other than art, seeking the B.S.Ed. with the Elementary/Secondary Program (certifies grades K-12); this program exceeds the minimum Missouri teacher certification standards in art K-9.

The Minor in Secondary Art Education is provided for students pursuing secondary preparation programs who also desire certification for teaching art in the junior high, middle school, or high school. This minor is also available to students, in majors other than art, seeking the B.S.Ed. with the Elementary/Secondary Program (certifies grades K-12); this program meets the minimum Missouri teacher certification standards in art 7-12.

Department Policies for Art

Students should acquire a copy of the Art Student Handbook or IDM Student Handbook for a complete list of department policies and other important information.

All work produced in fulfillment of course requirements is considered the property of the Department of Fine and Performing Arts for exhibition purposes until the student's graduation or withdrawal from the University.

Attendance at programs in the Visiting Artists Series is required of all students pursuing one of the majors in the art discipline.

Advanced Placement (AP), Dual Enrollment Transfer Credit and Credit by Examination

The Department of Fine and Performing Arts does not accept Advanced Placement, International Baccalaureate or Dual Enrollment credit for any of its Art degree programs, majors or minors. Credit by examination through the department is not available for any course in Art. The Discipline of Art faculty decides upon credit for courses transferred from another institution on a course-by-course basis.

Advanced Standing Requirement: Art Majors

No art major may be enrolled in and pursue advanced art courses (numbered 300 and above with the exception of ART 13321 Advanced Drawing, ART 13333 Printmaking and ART 13395 Design with Fibers) until Art Advanced Standing has been granted. ART 13333 Printmaking and ART 13201 Creative Photography need to be completed no later than the first trimester after art advanced standing has been granted. Art minors must complete the appropriate art core sequence prior to being enrolled in and pursuing advanced art courses.

Students seeking a major in art are expected to demonstrate a capacity to integrate from the art core courses: principles of an acquired formal language, processes of seeing and perception of content. Through visual, written and verbal evidence; students must show understandings of conceptual purposes behind directed work in the art core courses and sufficient commitment to expand their knowledge in order to successfully pursue advanced study.

To achieve Art Advanced Standing a student (1) must have no grade lower than “C” in ART 13120 Drawing, ART 13191 Introduction to Design, ART 13192 Three-Dimensional Design, complete ART 13161 Ceramics or ART 13150 Jewelry and Metalsmithing and have a grade point of at least 2.00 in the overall art core courses, with no more than 6-9 hours left to complete in the art core; (2) must demonstrate her/his readiness for advanced art courses by satisfactorily responding to written and/or oral questions as informed by the current art reading list; (3) BFA Studio majors must have completed ART 13109 Survey of Art I and ART 13111 Survey of Art II; (4) must present a portfolio of work from art core courses which demonstrates to the art faculty the student’s readiness to pursue advanced art courses; (5) must have attended no fewer than 70% of visiting artist lectures; and (6) must have completed (or at least be enrolled in the last required course at the time advanced standing is sought) the general education required classes listed for Art Advanced Standing with a GPA of at least 2.00.

Students beginning the second trimester of their sophomore year and/or beginning their last art core courses must apply for Art Advanced Standing. Transfer art majors seeking to enroll in advanced art courses must meet the same requirements as students who started their career at Northwest. A student not granted Art Advanced Standing may appeal the decision through a written petition to the Dean of the College of Arts and Sciences.

Advanced Standing Requirement: Interactive Digital Media Majors

No interactive digital media (IDM) major with a visual imaging concentration (VI) may be enrolled in and pursue advanced program courses (numbered 300 and above, with the exception of ART 13321 Advanced Drawing, ART 13333 Printmaking, and ART 13395 Design with Fibers) until IDM Advanced Standing has been granted.

Students seeking a major in interactive digital media with a visual imaging concentration are expected to demonstrate a capacity to integrate from the IDM-VI Advanced Standing Core courses: principles of an acquired formal language, processes of seeing and perception of content. Through visual, written and verbal evidence: students must show understandings of conceptual purposes behind directed work in the IDM Visual Imaging core courses and sufficient commitment to expand knowledge in order to successfully pursue advanced study.

To achieve IDM-VI Advanced Standing a student (1) must have no grade lower than a “C” in the IDM-VI Advanced Standing Core courses; (2) must have completed the general education required classes listed for IDM-VI Advanced Standing with a GPA of at least 2.00; and (3) must have attended no fewer than 70% of visiting artist lectures.

Students who have completed the requirements outlined above must apply for IDM-VI Advanced Standing. Transfer IDM majors seeking to enroll in the advanced program courses must meet the same requirements as students who started their career at Northwest. A

student who is not granted IDM-VI Advanced Standing may appeal the decision through a written petition to the Dean of the College of Arts and Sciences.

Advisement of Transfer Art and Interactive Digital Media Majors

All transfer students transferring credit for an art or interactive digital media-visual imaging concentration degree at Northwest must contact the Department of Fine and Performing Arts chairperson to arrange a portfolio review in the first week of the first trimester of enrollment. A review may be held prior to the first trimester of enrollment by arranging for a special appointment with the Department of Fine and Performing Arts chairperson. The purpose of this review is to provide an opportunity for advisement, appropriate to the background of the student, in meeting requirements for Advanced Standing and to determine which transfer credits will be accepted to meet Department Core Requirements and/or electives. Enrollment in advanced courses (numbered 300 and above) is not allowed until Advanced Standing has been obtained. The required portfolio review is not equivalent to an Advanced Standing review (see above for Advanced Standing requirements).

Senior Comprehensive Review

A senior comprehensive review must be successfully completed by all art majors and before a senior exhibit may be installed. Senior review requires an attendance of 70% or more of visiting artist lectures after the date advanced standing has been granted.

Senior Exhibition

All art majors are required to present an exhibition of their work that is acceptable to the art faculty. Candidates for the B.A. or B.S.Ed. degree can meet this requirement by successfully participating in a group exhibition in their senior year. Candidates for the B.F.A. degree can satisfy this requirement only through the completion of ART 13403 Senior Exhibition. Senior exhibitions are held during the fall and spring trimesters only.

Advanced Standing Core—Interactive Digital Media-Visual Imaging:

Requirements

Courses

ART 13120	Drawing	3
ART 13191	Introduction to Design	3
ART 13207	Digital Photography	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13292	Computer Graphics I	3
ART 13294	Typography I	3

Total Credit Hours: 21

Art Comprehensive Major, 72 hours: B.F.A. Studio—No Minor Required

CIP: 500702

Requirements

The Northwest Core (48-52 hours)

Courses to be completed before advanced standing:

INCO 77101	University Seminar	1
ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3
HUM 26102	Western Civilization I: The Ancient World to 1500	3

Recommended:

CSIS 44130	Computers and Information Technology	3
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Required Courses**Core Requirements**

ART 13120	Drawing	3
ART 13150	Jewelry and Metalsmithing OR	3
ART 13161	Ceramics	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13201	Creative Photography	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13270	Sculpture	3
ART 13280	Visual Art Concepts	3
ART 13333	Printmaking	3

Additional Required Courses

ART 13321	Advanced Drawing	3
ART 13402	Senior Seminar	1
ART 13403	Senior Exhibition	1

Studio Specialization Requirements:

A minimum of 12 hours in one studio area at or above the 300-level

At least 10 hours in supporting electives of 300-level or above

Studio areas include ceramics, drawing, painting, photography, printmaking, fibers, or sculpture.

Art History Requirements:

ART 13109	Survey of Art I: Prehistory through Medieval Art	3
ART 13111	Survey of Art II: Renaissance to the Present	3

plus three of the following courses

ART 13311	Ancient and Medieval Art	3
ART 13313	Renaissance and Baroque Art	3
ART 13315	Nineteenth and Early Twentieth Century Art	3
ART 13316	International Studies in Art History	3
ART 13317	Twentieth Century Art	3
ART 13318	Far Eastern Art	3

Elective Courses

General electives as needed to total 124 hours for degree

Total Credit Hours: 72**Art Comprehensive Major, 72 hours: B.F.A. Graphic Design-No Minor Required**

CIP: 500409

Requirements**The Northwest Core (48-52 hours)****Courses to be completed before advanced standing:**

INCO 77101	University Seminar	1
ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3
HUM 26102	Western Civilization I: The Ancient World to 1500	3

Must include the following:

ART 13111	Survey of Art II: Renaissance to the Present	3
Recommended:		
CSIS 44130	Computers and Information Technology	3
Required Courses		
Core Requirements		
ART 13120	Drawing	3
ART 13150	Jewelry and Metalsmithing	3
ART 13161	OR Ceramics	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13207	Digital Photography	3
ART 13201	OR Creative Photography	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13270	Sculpture	3
ART 13292	Computer Graphics I	3
ART 13294	Typography I	3
ART 13333	Printmaking	3
		Subtotal: 33
Graphic Design Requirements		
ART 13392	Typography 2	3
ART 13394	Computer Graphics 2	3
ART 13396	Advanced Graphic Design	3
ART 13398	Print and Digital Design	3
ART 13488	Package Design	3
ART 13492	Advertising Design	3
ART 13425	OR Knacktive	3
ART 13497	3D Animation	3
ART 13498	Digital Illustration	3
ART 13592	Internship	2 to 6
ART 13401	Senior Seminar and Portfolio	2
ART 13406	Professional Portfolio Review	1
	Electives in Graphic Design	3
		Subtotal: 33
Art History Requirements		
ART 13315	Nineteenth and Early Twentieth Century Art	3
ART 13312	Graphic Design History	3
		Subtotal: 6
Elective Courses		
General electives as needed to total 124 hours for degree		
		Subtotal: 4
Total Credit Hours: 72		
Art Education Comprehensive Major, 55 hours: B.S.Ed.— No Minor Required		
CIP: 131302		

Requirements

The Northwest Core (48-52 hours)

Courses to be taken before advanced standing:

INCO 77101	University Seminar	1
ENGL 1011	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3
HUM 26102	Western Civilization I: The Ancient World to 1500	3

Must include the following:

PSYC 08299	Educational Psychology	3
ART 13109	Survey of Art I: Prehistory through Medieval Art	3

Recommended:

CSIS 44130	Computers and Information Technology	3
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Required Courses

Degree Requirement

EDUC 61569	Multiculturalism in Education	3
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Core Requirements

ART 13120	Drawing	3
ART 13161	Ceramics	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13270	Sculpture	3
ART 13292	Computer Graphics I	3
ART 13333	Printmaking	3

Art Education Required Courses

ART 13180	Principles of Art Education	3
ART 13280	Visual Art Concepts	3
ART 13382	Methods in Elementary Art	3
ART 13395	Design With Fibers	3
ART 13402	Senior Seminar	1

Studio Electives

A minimum of 9 hours in studio areas

Studio areas include ceramics, drawing, painting, photography, printmaking, and sculpture.

Art History Requirements

ART 13111	Survey of Art II: Renaissance to the Present	3
	AND	
ART 13311	Ancient and Medieval Art	3
	OR	
ART 13313	Renaissance and Baroque Art	3
	OR	
ART 13315	Nineteenth and Early Twentieth Century Art	3
	OR	
ART 13316	International Studies in Art History	3
	OR	
ART 13317	Twentieth Century Art	3
	OR	
ART 13318	Far Eastern Art	3

Professional Education Courses

ART 13480	Methods in Secondary School Art	2
EDUC 61461	School and Society	2 to 3

EDUC 61470	Directed Teaching in Elementary and Secondary School	1 to 10
EDUC 61462	School and Society Seminar	1
EDUC 61260	Secondary Teaching Practicum I	1
EDUC 61360	Secondary Teaching Practicum II	1
EDCI 62353	Teaching Reading in Content Areas	2
EDCI 62371	Introduction to Special Education	3
EDUC 61520	Techniques of Classroom Management and Discipline	2
EDUC 61521	Seminar in Classroom Management	1
PSYC 08322	Adolescent Psychology	2

Total Credit Hours: 55

This major, when completed under the B.S.Ed. degree, Elementary/Secondary Program, meets Missouri teacher certification requirements which certifies grades K-12.

Art Comprehensive Major, 54 hours: B.A.—No Minor Required

CIP: 500702

Requirements**The Northwest Core (48-52 hours)****Courses to be completed before advanced standing:**

INCO 77101	University Seminar	1
ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3
HUM 26102	Western Civilization I: The Ancient World to 1500	3

Recommended:

CSIS 44130	Computers and Information Technology	3
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Degree Requirement

Modern Language	9
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All 9 hours must be in the same language.

Required Courses**Core Requirements**

ART 13120	Drawing	3
ART 13150	Jewelry and Metalsmithing	3
ART 13161	Ceramics	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13270	Sculpture	3
ART 13280	Visual Art Concepts	3
ART 13333	Printmaking	3

Additional Required Course

ART 13402	Senior Seminar	1
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Advanced Studio Electives

A minimum of 11 hours in various (or one) studio area	11
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Studio areas include ceramics, drawing, painting, photography, printmaking, fibers, or sculpture.

Art History:

ART 13109	Survey of Art I: Prehistory through Medieval Art	3
ART 13111	Survey of Art II: Renaissance to the Present	3

plus three of the following courses (9):

ART 13311	Ancient and Medieval Art	3
ART 13313	Renaissance and Baroque Art	3
ART 13315	Nineteenth and Early Twentieth Century Art	3
ART 13316	International Studies in Art History	3
ART 13317	Twentieth Century Art	3
ART 13318	Far Eastern Art	3

Elective Courses

General electives as needed to total 124 hours for degree

Total Credit Hours: 54**Interactive Digital Media Comprehensive Major, 61 hours: B.S.—No Minor Required**

CIP: 110801

Visual Imaging Concentration

This is an interdisciplinary major in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems, and the School of Communication and Mass Media. Three concentrations are available for this major: Computer Science Programming (Computer Science and Information Systems), New Media (Communication and Mass Media), and Visual Imaging (Fine and Performing Arts).

The Northwest Core (48-52 hours)**Courses to be completed before advanced standing:**

INCO 77101	University Seminar	1
ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3
HUM 26102	Western Civilization I: The Ancient World to 1500	3

Recommended:

CSIS 44130	Computers and Information Technology	3
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Required Core Courses

ART 13191	Introduction to Design	3
ART 13207	Digital Photography	3
ART 13292	Computer Graphics I	3
ART 13294	Typography I	3
MMED 20120	Introduction to Mass Media	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
MMED 20314	Communication Law and Ethics	3
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3
CSIS 44335	Script Programming	3
MKTG 55330	Principles of Marketing	3

Visual Imaging Concentration Required Courses

ART 13120	Drawing	3
ART 13221	Life Drawing	3
ART 13240	Painting	3
ART 13394	Computer Graphics 2	3
ART 13396	Advanced Graphic Design	3
ART 13398	Print and Digital Design	3
ART 13415	Interactive Digital Media Seminar	1
ART 13497	3D Animation	3
ART 13592	Internship	2 to 6

ART 13394, ART 13396, ART 13398, ART 13415, ART 13497, ART 13592: Must have completed all Advanced Standing Requirements prior to enrolling in advanced courses (300-level and above).

Elective Courses

General electives as needed to total 124 hours for degree

Suggested Electives:

ART 13492	Advertising Design	3
ART 13425	Knacktive	3
ART 13491	Interactive Design	2
ART 13493	Interactive Portfolio	1
ART 13499	Design Studio	2 to 6
ART 13599	Design Processes	2 to 6

Concentration in Computer Science Programming

see the School of Computer Science and Information Systems (p. 255)

Concentration in New Media

see the School of Communication and Mass Media (p. 235)

Total Credit Hours: 61

Art Minor, 24 hours

CIP: 500701

Requirements**Required Courses**

ART 13120	Drawing	3
ART 13191	Introduction to Design	3
ART 13192	OR Three-Dimensional Design	3
ART 13109	Survey of Art I: Prehistory through Medieval Art	3
ART 13111	OR Survey of Art II: Renaissance to the Present	3
	Art History: choice of courses (300-level)	3

Elective Courses

Art History or Studio choices by advisement 12

Total Credit Hours: 24

Elementary Art Education Minor, 24 hours: B.S.Ed.—Certifiable

See Professional Education Requirements (p. 272)

CIP: 131302

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

ART 13109	Survey of Art I: Prehistory through Medieval Art	3
	OR	
ART 13111	Survey of Art II: Renaissance to the Present	3

If Survey of Art I or Survey of Art II is not taken to meet Northwest Core requirements, either course must be added for the completion of this minor. This minor, if completed under the B.S.Ed. degree, meets Missouri teacher certification requirements in art K-9.

Required Courses

ART 13120	Drawing	3
ART 13161	Ceramics	3
ART 13180	Principles of Art Education	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13240	Painting	3
ART 13382	Methods in Elementary Art	3
ART 13395	Design With Fibers	3

Elective Courses

ART 13201	Creative Photography OR	3
ART 13333	Printmaking	3

The Department of Elementary and Secondary Education (DESE) requires 30 credit hours of art (history) classes before this minor qualifies to teach art K-9. DESE requires a "graphics" class, which can be either photography or printmaking.

Total Credit Hours: 24**Secondary Art Education Minor, 30 hours: B.S.Ed.—Certifiable**

See Professional Education Requirements (p. 272)

CIP: 131302**Requirements****The Northwest Core (48-52 hours)**

Must include the following:

ART 13109	Survey of Art I: Prehistory through Medieval Art OR	3
ART 13111	Survey of Art II: Renaissance to the Present	3

If Survey of Art I or Survey of Art II is not taken to meet Northwest Core requirements, either course must be added for the completion of this minor. This minor, if completed under the B.S.Ed. degree, meets Missouri teacher certification requirements in art 7-12.

Required Courses

ART 13120	Drawing	3
ART 13161	Ceramics	3
ART 13180	Principles of Art Education	3
ART 13191	Introduction to Design	3
ART 13192	Three-Dimensional Design	3
ART 13201	Creative Photography OR	3
ART 13333	Printmaking	3
ART 13240	Painting	3
ART 13395	Design With Fibers	3
ART 13480	Methods in Secondary School Art	2

Elective Courses

Art electives approved by the minor advisor as needed to total 30 hours

Total Credit Hours: 30

Interactive Digital Media Minor, 24 hours

CIP: 110801

This is an interdisciplinary minor in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems, and the School of Communication and Mass Media. This minor requires CSIS 44130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Requirements

Required Courses

ART 13191	Introduction to Design	3
ART 13292	Computer Graphics I	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3

Elective Courses

Choose two of the following:

ART 13120	Drawing	3
ART 13207	Digital Photography	3
MMED 20334	Multimedia Production	3
CSIS 44141	Computer Programming I	3
CSIS 44335	Script Programming	3

Total Credit Hours: 24

Music / 19

Accreditation of Music Degrees

Since 1969, Northwest Missouri State University has been a member of the National Association of Schools of Music. Both the B.M.E. and the B.A. degree are accredited by NASM. This accreditation insures that our programs are of the highest quality and that the curriculum conforms to national standards of excellence.

Statement of Purpose for Music

The Discipline of Music serves the University in three basic areas: general music education foundation for all students, individual professional preparation for selected fields and cultural enrichment for both campus and community.

Study in these programs provides majors with the skills needed to become highly successful in their chosen professions. The Discipline of Music is especially committed to excellence in public school music; in addition to an inclusive major in music, comprehensive programs are also available in vocal music education and instrumental music education. These programs provide instruction in private study, music theory/literature and methodology applicable to teaching at the elementary and secondary levels.

Recognizing its obligation to enhance the quality of life for the citizens of the four-state area, the Department of Fine and Performing Arts assists music supervisors in keeping current in their fields of expertise, offering courses for advanced study and special topics seminars that help them advance the cause of public school music in their communities.

Objectives

The music curriculum has been designed to assist all participating students in maximizing potential. Toward this end, the primary objectives of the undergraduate pro-grams are (1) to further performance ability in at least one musical medium, (2) to provide future teachers with the knowledge and skills necessary to become successful as professional educators in

instrumental and/or vocal music, and (3) to provide students with a wide range of educational/musical experiences which will encourage continued personal and professional growth.

Degree Programs in Music

The Bachelor of Arts with a Comprehensive Major in Music (41 hours) is designed to provide the student with a broad liberal arts education, as well as more specialized work in an applied area of voice, keyboard or a particular instrument.

The Bachelor of Music in Education, Elementary/Secondary Program, with a comprehensive major in either Instrumental Music Education (60 hours) or Vocal Music Education (58 hours), prepares students to teach instrumental or vocal music at all levels, K-12. These major programs exceed the minimum Missouri teacher certification standards in instrumental music K-12 or in vocal music K-12.

A 24-hour Minor in Music is available to students with a major in another academic discipline.

Test-Out Policy for Music

Credit by examination through the department is available for the following courses only: MUS 19171 (Beginning Sight Singing and Ear-Training), MUS 19172 (Intermediate Sight Singing and Ear-Training), MUS 19173 (Theory of Music), MUS 19174 (Theory of Music), MUS 19271 (Advanced Sight Singing and Ear-Training I) and MUS 19272 (Advanced Sight Singing and Ear-Training II).

For policies and procedures see the "Departmental Test-Out" (p. 45) section of this catalog. Advanced Placement (AP) credit is available for MUS 19173 (Theory of Music) and MUS 19201 (Enjoyment of Music) with a score of "4" on the appropriate test.

Upper-Level Standing in Applied Study for Music

The Upper-Level Qualifying Examination in applied study may be attempted after a minimum of four semester hours of study (not including dual credit) in the lower level (courses numbered below 300) of applied instruction. If approved for upper-level standing by the appropriate faculty committee, the student must then enroll in upper-level applied study. Transfer students wishing to enroll in private study at the upper level must meet the same requirements as students who began studies at Northwest. Transfer students will be tested for upper-level standing during the first week of their initial trimester.

Departmental Policies for Music

Applied Jury Exam: All students enrolled in applied music are required to participate in the applied jury exam each trimester of applied study except for the trimester in which their senior recital is actually presented. These examinations are administered by the music faculty on specific dates during the week of final examinations.

Concert/Recital Attendance: All music majors and minors are required to attend concerts and recitals as specified by the music faculty at the beginning of each fall and spring trimester. Non-music majors and minors may be required to attend concerts and/or recitals as directed by course instructors.

Ensemble Participation: Majors in the B.M.E. program are required to satisfactorily participate in Marching Band, Symphonic Band, Wind Symphony, University Chorale or Orchestra according to their major applied area (and/or area of added endorsement) each fall and spring trimester of full-time enrollment, except for the trimester of student teaching. Majors in the B.A. degree and minors are required to satisfactorily participate in either Marching Band, Symphonic Band, Wind Symphony, University Chorale or Orchestra according to their major applied area each fall or spring trimester of full-time enrollment.

Students may enroll in ensemble courses for activity OR academic credit in order to fulfill this requirement. NOTE: Courses taken for activity credit do not count toward GPA.

Performance Audition: For all levels of applied study, students must have the permission of the instructor and/or faculty within the area of study. Any student who has not been heard by the faculty at scholarship auditions must perform an audition for faculty members before the drop/add period closes in the fall to determine acceptance to applied study. Students unable to demonstrate sufficient performance skills will be admitted on a trial basis.

Entrance Examination for Music Theory: All students who intend to begin the theory sequence at Northwest must successfully pass the entrance examination prior to enrolling in theory courses. The purpose of the examination is to ensure that each student possesses a significant level of competence in music before entering the theory sequence.

Placement Examination in Theory and Ear-Training for Transfer Students: All students who desire to transfer theory and/or ear-training credit from another institution must take a Placement Examination in Music Theory and Ear-Training at the appropriate level. The purpose of this examination is to ensure proper placement in the theory/ear-training sequence and equate previous theory/ear-training courses to those offered at Northwest. Students may be required to retake or audit appropriate Northwest music theory/ear-training courses to remedy any deficiencies.

Entrance Examination In Keyboard: All students who intend to study keyboard at Northwest must take a placement exam prior to enrolling in any level of applied piano class, applied piano, applied organ or applied harpsichord. The purpose of the examination is to assess the ability level of each student and to appropriately place that student.

Courses at 500-level: Unless excused by the department chairperson, students must have senior standing before being permitted to enroll in 500-level music courses.

Keyboard Proficiency: Majors in the B.M.E. degree are required to pass a piano proficiency examination to the satisfaction of the piano faculty. Piano majors are exempt from this policy. The examination must be taken no later than the end of the student's third trimester of piano study. Transfer students with three trimesters of piano study are required to take the examination during their first trimester of enrollment at Northwest. The examination is administered only during the fall and spring trimesters of each academic year for students enrolled in keyboard study. Fulfillment of this requirement is a prerequisite to enrollment in MUS 19-482 (Methods in Secondary School Instrumental Music), MUS 19-484 (Methods in Secondary School Vocal Music), and EDUC 61-470 (Directed Teaching in Elementary and Secondary School).

In order to pass the piano proficiency examination at Northwest, students must be able to: (1) perform one prepared piece of comparable difficulty to a movement from a Clementi Sonatina, (2) sight read one composition of intermediate difficulty, (3) supply an accompaniment to a given melody with marked chording, and (4) supply an accompaniment to a given melody without marked chording. Special note: A requirement for taking the keyboard proficiency exam is enrollment in keyboard study for credit (and have a passing grade in the course) or successfully auditing of class piano (i.e. have a minimum of 65% attendance).

Senior Recital: All majors, regardless of degree, are required to present a senior recital to the satisfaction of the music faculty. Such a recital will be presented only upon the approval of the student's senior recital hearing committee. The student must be enrolled in MUS 19-499 (Senior Recital) and in applied music with the student's major instructor during the trimester of the recital. The senior recital may not be attempted sooner than the third trimester of the upper level of applied study.

Students must adhere to departmental standards/policies concerning scheduling, format, additional performers and printed materials relative to the Senior Recital. These standards/policies are specified in the music student handbook, which may be obtained in the office of the Department of Fine and Performing Arts and online at <http://www.nwmissouri.edu/finearts/pdf/music/Music%20Student%20Handbook.pdf>.

Sight Singing/Ear-Training Proficiency: All majors are required to pass a sight singing/ear-training proficiency examination to the satisfaction of the music theory faculty. This examination must be taken by the end of the student's fourth trimester of ear-training. The

examination is given to all transfer students who have completed at least four trimesters of ear-training study at another institution. Students who do not pass this examination must successfully audit (i.e. minimum of 65% attendance) either MUS 19271 (Advanced Sight Singing and Ear-Training I) or MUS 19272 (Advanced Sight Singing and Ear-Training II) before attempting to pass the proficiency examination again. The examinations are administered only during the fall and spring trimesters of each academic year for students enrolled in MUS 19271 or MUS 19272. This requirement is a prerequisite to enrollment in EDUC 61470 (Directed Teaching in Elementary and Secondary School).

Student Recital: Each music major, regardless of degree program, is required to perform in his/her major applied area in a student recital each trimester of applied study, with the exception of the initial trimester of such applied study. Other students enrolled in applied music may also be required by the applied instructor to perform in a student recital.

Bachelor of Music Education (B.M.E.) (K-12 Certification)

The purpose of the B.M.E. degree is to provide music teacher training. Those who complete this degree are normally granted a certificate to teach in Missouri. All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education. Care should be exercised in choosing courses to assure a minimum of 40 semester hours of senior college work in courses numbered above 300. Completion of this curriculum, other University requirements, and an overall grade point average of 2.50 on a 4.00 scale qualifies a student to receive a Bachelor of Music Education degree. The Bachelor of Music Education degree is available with these majors: Instrumental Music K-12, Vocal Music K-12. Candidates must complete the following requirements:

B.M.E. Degree Requirements

The Northwest Core (48-52 hours)

Must include the following:

COM 29102	Fundamentals of Oral Communication	3
PSYC 08299	Educational Psychology	3
Directed Northwest Core Requirement: (must achieve grade of "C" or better in each)		

Degree Requirement (3)

EDUC 61569	Multiculturalism in Education	3
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Professional Education Requirements (25)

EDUC 61260	Secondary Teaching Practicum I	1
EDCI 62353	Teaching Reading in Content Areas	2
EDCI 62371	Introduction to Special Education	3
PSYC 08322	Adolescent Psychology	2
EDUC 61360	Secondary Teaching Practicum II	1
EDUC 61461	School and Society	2 to 3
EDUC 61520	Techniques of Classroom Management and Discipline	2
EDUC 61462	School and Society Seminar	1
EDUC 61470	Directed Teaching in Elementary and Secondary School	1 to 10
EDUC 61521	Seminar in Classroom Management	1

EDUC 61360, EDUC 61461, EDUC 61520: These courses are to be taken in the same trimester as MUS 19482 Methods in Secondary School Instrumental Music or MUS 19484 Methods in Secondary School Vocal Music

EDUC 61462, EDUC 61470, EDUC 61521: These courses must be taken during the student teaching trimester.

Major Requirements (58-60)

Music Core Requirements

The Department of Fine and Performing Arts has formulated a curriculum that facilitates development of a student's musicianship in a comprehensive fashion with course offerings in applied music, music literature, and music theory.

Core Requirements for Majors in Music:

MUS 19171	Beginning Sight Singing and Ear Training	1
MUS 19172	Intermediate Sight Singing and Ear Training	1
MUS 19173	Theory of Music	3
MUS 19174	Theory of Music	3
MUS 19271	Advanced Sight Singing and Ear Training I	1
MUS 19272	Advanced Sight Singing and Ear Training II	1
MUS 19273	Theory of Music	3
MUS 19274	Theory of Music	3
MUS 19385	Music Literature: Antiquity through Renaissance (BC-1600)	3
MUS 19386	Music Literature: Baroque through Classical	3
MUS 19387	Music Literature: Romantic through the Present	3

MUS 19472	Musical Form and Analysis OR	2
MUS 19493	Choral Composition and Arranging OR	2
MUS 19494	Instrumental Composition and Arranging	2

MUS 19499	Senior Recital and Seminar	1
MUS 19299	Music Recital Attendance	1

Note: MUS 19493 is required for Vocal Music Education, MUS 19494 is required for Instrumental Music Education

Recital Attendance Requirement (MUS 19299): 7 hours (B.M.E.), 8 hours (B.A.)

Applied Music:

Included in the requirements for the B.M.E. degree is a minimum of **four** semester hours credit in **upper level** coursework in the major applied area.

For the **B.A.** degree, a minimum of six semester hours credit in **upper level** coursework in the major applied area is required.

**Instrumental Music Education Comprehensive Major, 60 hours:
B.M.E.—No Minor Required (Certifies Grades K-12)**

CIP: 131312

Requirements**Required Courses**

Music Core Requirements (p. 110)

MUS 19180	Introduction to Music Education	1
MUS 19220	Brass Methods I	1
MUS 19223	Brass Methods II	1
MUS 19221	Percussion Methods I	1
MUS 19224	Percussion Methods II	1
MUS 19240	String Methods I	1
MUS 19241	String Methods II	1
MUS 19260	Woodwind Methods I	1
MUS 19261	Woodwind Methods II	1
MUS 19391	Elements of Conducting	2
MUS 19421	Instrumental Conducting	2
MUS 19481	Methods in Elementary School Music	2
MUS 19482	Methods in Secondary School Instrumental Music	2

Applied Music (13)

Major Instruments	8
Piano (or other keyboard instrument)	3
Electives	2

For Piano as a Major Instrument:

Piano (or other keyboard instrument)	8
Instrumental	5

Vocal Electives

Choose 2 hours from:

MUS 19250	Vocal Methods	2
MUS 19151	Applied Voice Class	1
MUS 19152	Applied Voice Class	1

Instrumental ensembles taken for academic or activity credit selected from:

MUS 19110	Marching Band	1
	OR	
MUS 19111	Marching Band Activity	1
MUS 19115	Symphonic Band	1
	OR	
MUS 19116	Symphonic Band Activity	1
MUS 19118	Orchestra	1
	OR	
MUS 19119	Orchestra Activity	1
MUS 19209	Wind Symphony	1
	OR	
MUS 19210	Wind Symphony Activity	1

Note: Instrumental ensembles should be taken each fall and spring trimester of full-time enrollment for a total of 7 trimesters minimum.

Total Credit Hours: 60

This major meets Missouri teacher certification requirements in instrumental music K–12.

Vocal Music Education Comprehensive Major, 58 hours: B.M.E.—No Minor Required (Certifies Grades K-12)

CIP: 131312

Requirements**Required Courses**

Music Core Requirements (p. 110)

MUS 19180	Introduction to Music Education	1
MUS 19250	Vocal Methods	2
MUS 19270	Instrumental Methods for Non-Instrumental Majors	2
MUS 19391	Elements of Conducting	2
MUS 19420	Choral Conducting	2
MUS 19481	Methods in Elementary School Music	2
MUS 19592	General Music Methods	2
MUS 19593	Choral Literature for Secondary Schools	2
MUS 19484	Methods in Secondary School Vocal Music	2

Vocal ensembles taken for either academic or activity credit:

MUS 19112	University Chorale	1
	OR	
MUS 19113	University Chorale Activity	1

Note: Vocal ensembles should be taken each fall and spring trimester of full-time enrollment for a total of 7 trimesters minimum.

Applied Music (13):**Voice Concentration**

Voice	8
Piano (or other keyboard instrument)	4
Elective	1

Piano Concentration

Piano	8
Voice	5

Total Credit Hours: 58

This major meets Missouri teacher certification requirements in vocal music K–12.

Music Comprehensive Major, 41 hours: B.A.—No Minor Required

CIP: 500901

Requirements**Required Courses**

Music Core Requirements (p. 110)

Applied music courses as recommended by advisor	10
Approved music electives as needed to total 41 hours	

University music ensembles taken for academic or activity credit selected from:

MUS 19110	Marching Band	1
	OR	
MUS 19111	Marching Band Activity	1
MUS 19115	Symphonic Band	1
	OR	
MUS 19116	Symphonic Band Activity	1
MUS 19118	Orchestra	1
	OR	
MUS 19119	Orchestra Activity	1
MUS 19209	Wind Symphony	1
	OR	
MUS 19210	Wind Symphony Activity	1
MUS 19112	University Chorale	1
	OR	
MUS 19113	University Chorale Activity	1

Note: University music ensembles should be taken each fall and spring trimester of full-time enrollment for a total of 8 trimesters minimum.

SPECIAL NOTES: Care should be exercised in choosing courses to assure a minimum of 32 semester hours of work in courses numbered above 300.

Total Credit Hours: 41

The B.A. degree with a Comprehensive Major in Music provides the student with a broad liberal arts education and the opportunity to pursue specialized work in the performance area.

Music Minor, 24 hours

CIP: 500901

Requirements**Required Courses**

MUS 19171	Beginning Sight Singing and Ear Training	1
MUS 19172	Intermediate Sight Singing and Ear Training	1
MUS 19173	Theory of Music	3

MUS 19174	Theory of Music	3
	Literature and History of Music	6
	Applied music courses	6
MUS 19299	Music Recital Attendance	1
	Music electives as needed to total 24 hours	

Note: Literature and History of Music by advisement.

Music Recital Attendance: MUS 19299 is only offered as activity credit and must be taken for a minimum of 4 trimesters.

University music ensembles taken for either academic or activity credit selected from:

MUS 19110	Marching Band	1
	OR	
MUS 19111	Marching Band Activity	1
MUS 19115	Symphonic Band	1
	OR	
MUS 19116	Symphonic Band Activity	1
MUS 19118	Orchestra	1
	OR	
MUS 19119	Orchestra Activity	1
MUS 19209	Wind Symphony	1
	OR	
MUS 19210	Wind Symphony Activity	1
MUS 19112	University Chorale	1
	OR	
MUS 19113	University Chorale Activity	1

Note: University music ensembles should be taken for a total of 7 trimesters minimum.

(See ensemble participation under department policies.)

Total Credit Hours: 24

This minor does not meet Missouri teacher certification requirements. It is recommended for students pursuing a B.A. or B.S. degree.

Vocal Music Education Extended Certification, Grades K-12, 12 hours: B.M.E. Degree

This is not a major or minor, but an extended certification that may be added to the 60-hour B.M.E. in Instrumental Music Education.

Requirements

Required Courses

MUS 19250	Vocal Methods	2
MUS 19420	Choral Conducting	2
MUS 19484	Methods in Secondary School Vocal Music	2
MUS 19493	Choral Composition and Arranging	2
MUS 19592	General Music Methods	2
MUS 19593	Choral Literature for Secondary Schools	2

Total Credit Hours: 12

Instrumental Music Education Extended Certification, Grades K-12, 14 hours: B.M.E. Degree

This is not a major or minor, but an extended certification that may be added to the 58-hour B.M.E. in Vocal Music Education.

Requirements

Required Courses

MUS 19220	Brass Methods I	1
MUS 19221	Percussion Methods I	1
MUS 19223	Brass Methods II	1
MUS 19224	Percussion Methods II	1
MUS 19240	String Methods I	1
MUS 19241	String Methods II	1
MUS 19260	Woodwind Methods I	1
MUS 19261	Woodwind Methods II	1
MUS 19421	Instrumental Conducting	2
MUS 19482	Methods in Secondary School Instrumental Music	2
MUS 19494	Instrumental Composition and Arranging	2

Total Credit Hours: 14

Theatre / 43

Statement of Purpose for Theatre

Supporting Northwest's institution-wide vision and mission, the Discipline of Theatre has a threefold purpose: (1) to serve the educational needs of the students of Northwest by providing programs of study that integrate theory and practice in Theatre; (2) to provide quality cultural performances and experiences for the University and surrounding communities; and (3) to make a significant contribution to the advancement of knowledge in these fields. The department seeks to accomplish this by: (a) attracting students who have the potential to become competent professionals, (b) preparing students in department majors for successful employment in those fields or for advanced study in graduate programs, (c) providing all students with competency training that is essential to their success in school and in the world, and (d) maintaining a relationship with alumni and supporting their continual development as professionals and citizens.

Students in the Discipline of Theatre are provided with both a solid theoretical understanding of the field and numerous opportunities for hands-on competence. Student organizations within the department provide additional experiential learning opportunities. Whether majoring in a theatre field (Performance, Technical/Design or Comprehensive), or seeking teacher certification in one of those areas, students in the department learn from their instructors and classroom experiences, learn by doing, learn from one another, and learn from professionals in their fields.

Majors and non-majors alike are eligible and encouraged to participate in performance or technical positions in the mainstage and laboratory production theatre series, forensics activities, multicultural events, and student organizations.

The department also serves as a center for cultural activity and enrichment for the University and surrounding communities. Public performances of dramatic literature from all major periods and of all major styles are produced throughout the academic year. The high caliber of these performances instills an appreciation for the performance process and the aesthetics of production arts.

By encouraging and supporting its faculty members to continuously engage in creative and scholarly activities, the department fulfills its obligation to not only partake of the field of knowledge but also to enlarge that field. This ensures that students taking courses within the department receive the best and most current education possible. By providing opportunities and encouraging its majors to engage in additional creative activities and scholarly research outside of the classroom, the department offers students the opportunity to further enhance their educational experience and to join with the faculty in expanding their fields of knowledge.

Degree Programs in Theatre

The comprehensive Bachelor of Science in Theatre (60 hours) does not require an outside minor and provides students with a solid foundation in all major areas of theatre study while allowing concentration in a specific production activity. Specialization options, available in performance and technical/design areas, prepare the student to enter the professional field or to undertake advanced study and training.

The Bachelor of Arts in Theatre (30 hours), which requires a minor in another area, provides students with theoretical and practical knowledge in all areas of theatre study in preparation for advanced training, graduate work or entry into the field.

The comprehensive Bachelor of Science in Education in Speech/Theatre (55 hours) prepares students to teach and direct speech and theatre in secondary schools. This major does not require a minor and, when completed under the B.S.Ed., Secondary Education Program, meets the State of Missouri teacher certification standards for grades 9-12.

The non-comprehensive Bachelor of Science in Education in Speech/Theatre (38 hours) requires a minor. This major, when completed under the B.S.Ed., Secondary Education Program, meets the State of Missouri teacher certification standards for grades 9-12.

The minor in Theatre (24 hours) provides students majoring in other departments with a general knowledge of all major areas of theatre study and the opportunity to apply that knowledge in a production environment.

A minor in Speech/Theatre Education (32 hours) is available to students majoring in another area. This minor, when completed under the B.S.Ed., Secondary Education Program, meets the State of Missouri teacher certification standards for grades 9-12.

The department also offers an endorsement in Speech/Theatre for students seeking Missouri Middle School (grades 5-9) certification. The middle school program is advised through the College of Education and Human Services.

Departmental Policies for Theatre

Senior Project Requirement

Students must create a significant public performance or exhibition of materials in the student's area of emphasis in theatre during the senior year. Prior to beginning the project, students must create a proposal as part of the Theatre Capstone course (THEA 43497) and receive project approval from the theatre faculty. Students may choose to enroll in THEA 43499 Senior Project if academic credit is desired.

Speech/Theatre Education Directing Requirement

All candidates for the B.S.Ed. degree with a secondary speech/theatre major must demonstrate their ability to direct a complete theatrical presentation that is approved by department faculty. Opportunities for meeting this requirement will be discussed with the academic advisor and include lab series, second stage, and external venue shows. THEA 43373 Directing must be successfully completed prior to attempting this requirement.

Advanced Standing Requirement

Students majoring in theatre must complete University Seminar (1 hour), English Composition (6 hours), Oral Communication (3 hours), and Mathematics (3-4 hours) by the end of the sophomore year. A student must present a cumulative grade point average of 2.00 for all courses listed above. No departmental major may be enrolled in and pursue advanced departmental courses (numbered 300 or above) until these courses and the specific advanced standing requirements for the student's major are met.

Students seeking exemption or who are not granted advanced standing in theatre may appeal by submitting a written petition to the Associate Provost of the College of Arts and Sciences through the Chair of the department.

Theatre and Speech/Theatre Education Majors

Students seeking a major or minor in theatre or speech/theatre education are expected to demonstrate a capacity to integrate, from the theatre core courses: principles of a common formal language, process of seeing, and perception of content. Through visual, written and verbal evidence: students must show understanding of conceptual purposes behind directed work in the theatre core courses and sufficient commitment to expand their knowledge in order to successfully pursue advanced study.

No theatre major or speech/theatre education major may be enrolled in and pursue advanced theatre courses (Theatre courses numbered 43-300 and above) until theatre advanced standing has been granted. Minors must complete the theatre core sequence with a grade of “C” or better in all core courses prior to being enrolled in and pursuing advanced theatre courses.

To achieve theatre advanced standing, theatre majors and speech/theatre education majors 1) must have no grade lower than “C” in any theatre core course, and 2) must demonstrate his/her readiness for advanced theatre courses by satisfactorily responding to written and oral questions related to the current theatre reading list and from theatre core courses, and 3) present a professional portfolio for faculty review. Majors may apply for theatre advanced standing during the trimester they are completing the theatre core.

Theatre Core Requirements

Core Requirements for Majors and Minors in Theatre

Courses

THEA 43110	Theatre Foundations	3
THEA 43210	Design Principles in Theatre	3
THEA 43225	Oral Interpretation and Textual Analysis	3
THEA 43230	Acting	3

Total Credit Hours: 12

Theatre Major, 30 hours: B.A.—Minor Required

CIP: 500501

Requirements

The Northwest Core (48-52 hours)

Required Courses

	Theatre Core Requirements	12
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3
THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3
THEA 43497	Theatre Capstone	3

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre design from (3):

THEA 43354	Stage Lighting	3
THEA 43391	Costuming	3
THEA 43395	Scene Design	3

Total Credit Hours: 30

Theatre Comprehensive Major, 60 hours: B.S.—No Minor Required

CIP: 500501

Requirements

The Northwest Core (48-52 hours)

Required Courses

	Theatre Core Requirements	12
THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3
THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3
THEA 43497	Theatre Capstone	3
	Specialization option	27
THEA 43305 (enroll 3 trimesters)		

Performance Specialization Option (27)

THEA 43235	Theatre Voice and Movement	3
THEA 43258	Stage Makeup	3
THEA 43330	Advanced Acting	3
THEA 43335	Acting Period Styles and Techniques	3
THEA 43426	Interpreter's Theatre	3
	Performance-related course(s) from 19- or 22- prefix departments, approved by advisor	3
	Theatre electives, approved by advisor	9

Technical Theatre and Design Option (27)

THEA 43221	Drafting	3
THEA 43222	Advanced Drafting	3
THEA 43354	Stage Lighting	3
THEA 43383	Stage and Theatre Management	3
THEA 43391	Costuming	3
THEA 43395	Scene Design	3
	Tech/design-related course(s) from 13- or 15- prefix departments, approved by advisor	3
	Theatre electives, approved by advisor	6

Total Credit Hours: 60

Theatre Minor, 24 hours

CIP: 50050

Requirements

Required Courses

	Theatre Core Requirements	12
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre design from (3):

THEA 43354	Stage Lighting	3
THEA 43391	Costuming	3
THEA 43395	Scene Design	3

Three hours of theatre history from (3):

THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Total Credit Hours: 24

Speech/Theatre

Speech/Theatre Core Requirements**Requirements****Core Requirements for Speech/Theatre Education Majors/Minors**

THEA 43110	Theatre Foundations	3
THEA 43210	Design Principles in Theatre	3
THEA 43225	Oral Interpretation and Textual Analysis	3
THEA 43230	Acting	3
COM 29210	Communication Theory	3
COM 29230	Public Speaking	3

Total Credit Hours: 18**Speech/Theatre Education Comprehensive Major, 55 hours:
B.S.Ed.—No Minor Required (Certifies Grades 9-12)**

CIP: 131399

Requirements**The Northwest Core (48-52 hours)****Required Courses**

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics AND/OR	1 to 4
COM 29338	Advanced Practicum in Debate and Forensics	1 to 4
COM 29232	Small Group Communication	3
COM 29325	Listening Behavior and Skills	3
COM 29332	Propaganda and Persuasion	3
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3
THEA 43460	Creative Dramatics	3
	Eight hours of approved speech communication, theatre, or mass media electives	8

Note: COM 29133 and COM 29338 should be taken for a minimum of 2 credit hours total.

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre history from (3):

THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Total Credit Hours: 55

This major, when completed under the B.S.Ed., Secondary Program, meets Missouri teacher certification requirements for speech/theatre secondary level.

Speech/Theatre Education Major, 38 hours: B.S.Ed.—Minor Required (Certifies Grades 9-12)

Requirements

The Northwest Core (48-52 hours)

Required Courses

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics AND/OR	1 to 4
COM 29338	Advanced Practicum in Debate and Forensics	1 to 4
COM 29332	Propaganda and Persuasion	3
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3

Note: COM 29133 and COM 29338 should be taken for a minimum of 2 credit hours total.

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre history from (3):

THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Total Credit Hours: 38

This major, when completed under the B.S.Ed. Secondary Program, meets Missouri teacher certification requirements for speech/theatre secondary level.

Speech/Theatre Education Minor, 32 hours (Certifies Grades 9-12)

See Professional Education Requirements. (p. 272)

CIP: 131324

Requirements

Required Courses

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics	1 to 4
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3

Three hours from:

COM 29325	Listening Behavior and Skills	3
COM 29332	Propaganda and Persuasion	3
THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Total Credit Hours: 32

Speech/Theatre for the Middle School Area of Endorsement, 21 hours

Certifies Grades 5-9 when completed with the Middle School major.

CIP: 131331

Requirements

Required Courses

THEA 43110	Theatre Foundations	3
THEA 43230	Acting	3
THEA 43373	Directing	3
THEA 43460	Creative Dramatics	3
COM 29210	Communication Theory	3
COM 29230	Public Speaking	3
COM 29341	Argumentation and Debate	3

Total Credit Hours: 21

The completion of the above requirements meets the Speech/Theatre Area of Endorsement for use with Missouri Middle School Certification, grades 5-9. Students must take COM 29480 Methods of Teaching Speech/Theatre in the Secondary School. Advisement for Middle School Certification is provided by the School of Education (p. 272).

Humanities and Social Sciences Department

Chairperson: Joel Benson

Faculty: Luke Campbell, John Carr, Kimberly Casey, Brett Chloupek, Mark Corson, Patricia Drews, James Eiswert, Richard Field, Elyssa Ford, Dawn Gilley, Jessica Gracey, Theodore Goudge, Brian Hesse, Ming-Chih Hung, David Jerome, Matthew Johnson, Kevin Romig, Devlin Scofield, Daniel Smith, Dana Ternus, Robert Voss, Yi-Hwa Wu

Statement of Mission

The Department of Humanities and Social Sciences includes the disciplinary areas of geography, geographic information science, history, humanities, philosophy, political science, social science education, and emergency and disaster management, thus serving a kaleidoscope of constituencies on campus. Throughout the department, academic experiences that embrace broad, general, liberal education as well as applied skills encourage students to be inquisitive, creative, and imaginative as well as functional. The department strives to prepare students to be adaptable and flexible in their occupational and professional pursuits but ever cognizant of and responsible to the human and environmental conditions. The disciplines represented by the department should serve as a foundation upon which every person bases his or her professional career as well as being integral to their lives and the lives of those around them.

Degree Programs

The Department of Humanities and Social Sciences offers thirteen majors, eleven minors and certification in middle and secondary school social sciences.

The Bachelor of Arts (59-61) and Bachelor of Science (62-64) degrees in Liberal Arts and Sciences provide a broad education across the many disciplines within the Arts and Sciences. The program emphasizes fundamental skills in critical thinking, problem-solving and communication within the context of the seven core disciplines that comprise the major. The program is designed to be adaptable to the needs of the student by providing the opportunity to take additional electives in any of the discipline areas but still leaving enough room for electives outside the program.

The Bachelor of Arts (30 hours) and the Bachelor of Science (37 hours) degrees in Geography provide students the opportunity to prepare themselves to pursue positions in government, business, education, urban and regional planning, environmental analysis, and natural resource management. The comprehensive Bachelor of Science (53-54 hours) degree in Geographic Information Science prepares students for careers that apply GIS and related geospatial technologies to these fields.

The Bachelor of Arts (36 hours) and Bachelor of Science in History (39 hours) provide a traditional liberal arts program and prepares students for careers in such diverse areas as government, public service, business and industry, archives, museums, historical preservation, writing and research.

The Bachelor of Arts in Philosophy (31 hours) provides students with the rich history of the Western philosophical tradition and the values of free, impartial and disciplined inquiry embodied therein. The major in philosophy fosters skills of critical thinking and clear expression which are transferable to any field, and integrates philosophical study with other fields through interdisciplinary electives.

A Bachelor of Science in Education degree in Social Science (54 hours) draws upon economics, geography, government, history and sociology in providing preparation for teaching social science. This major must be completed as a part of the B.S.Ed. degree, Secondary Education Program, thus meeting Missouri teacher certification standards for social studies grades 9-12, as well as preparing the student to become a facilitator for lifelong learning in a world of diversity and change. This is a comprehensive major; no minor is required. However, students are free to complete a minor in another field appropriate to the B.S.Ed. degree, Secondary Program, if seeking another teaching area.

The Bachelor of Arts (31 hours) and Bachelor of Science (37 hours) degrees in Political Science introduce the student to the decision-making processes that guide, direct and determine a society's behavior. Courses focus on the politics and administration of government and factors involved in the competition for political power. The political science program prepares students for a number of careers as well as advanced study in law, municipal planning, city management, urban affairs, education and public policy analysis.

The Bachelor of Science in Emergency and Disaster Management (36 hours) uses a multi-disciplinary approach to study crisis, drawing from courses and faculty in communications, geography, psychology, and social sciences. In addition to the crisis management core, multiple options, and electives within those options, provide flexibility so that students can tailor the major to their individual and specific academic and professional needs. This approach provides the student with both theoretical and practical knowledge that is valued in the public, private, and non-profit sectors.

Minors are available in the areas of liberal arts and sciences, geography, geographic information science, history, humanities, philosophy, public history, criminology, political science, public administration, international relations, and emergency and disaster management. These minor programs assist students interested in a variety of careers, including museum studies, archives, historic preservation, national park service, law enforcement, juvenile justice, theology, crisis management, business and graduate studies.

Test-Out Policy

Credit by examination through the Department of Humanities and Social Sciences is not available for courses in this catalog.

Department Policies

All students selecting majors or minors in this department must have a departmental advisor from the appropriate area who shall approve all programs, deviations or options. An advisement file shall be maintained on each major as well as for each minor. Advanced standing requirements for each of the majors in the department are indicated preceding each major.

Humanities / 26

Liberal Arts and Sciences Comprehensive Major, 59-61 hours: B.A.-No Minor Required

CIP: 240101

Requirements

Students working toward a Bachelor of Arts degree in Liberal Arts and Sciences must 1) complete 9 hours of one language; and 2) complete a minimum of 32 credit hours at the 300-level or above.

The Northwest Core (48-52 hours)

Recommended:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1

Required Courses

HUM 26103	Western Civilization II: 1500 to the Present	3
PHIL 39171	Introduction to Philosophy	3
SOC 35108	General Anthropology	3
	OR	
SOC 35101	General Sociology	3
HUM 26401	Senior Seminar	1

Students must take courses from each of the following discipline areas:**Mathematics and Philosophy (6)**

MATH 17114	General Statistics	3
MATH 17118	College Algebra	3
MATH 17117	Precalculus	4
MATH 17120	Calculus I	4
	Any Philosophy course 200-level or higher for which the prerequisites are met	

Literature

Any 200-level or higher course in English Literature for which the prerequisites are met 6

ENGL 10220 Introduction to Literature cannot count toward this requirement as it is a Northwest Core Requirement.

Fine Arts (6)

Any 300-level or higher course in Art History for which the prerequisites are met
 Any 300-level or higher course in Music Literature and History for which the prerequisites are met
 Any 300-level or higher History of Theatre course for which the prerequisites are met

Geography (6)

Any 300-level or higher course in Geography for which the prerequisites are met

History and Political Science (6)

Any 300-level or higher History course for which the prerequisites are met
 Any 300-level or higher Political Science course for which the prerequisites are met

Life and Physical Sciences

Choose one (1) track: either Life Sciences or Physical Sciences

Life Sciences Track

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1

Physical Sciences Track

GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory	1
	OR	
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

One upper-level Geology course for which the prerequisites are met

Approved Electives in Arts and Sciences

Approved electives in Arts and Sciences 9

General Electives

General electives 6 to 8

Language Hours

Modern Language 9

Total Credit Hours: 59-61

HUM 26102, HUM 26103, PHIL 39171, SOC 35108, SOC 35101, MATH 17114, MATH 17118, MATH 17117, MATH 17120, GEOL 27110, GEOL 27111, GEOL 27114, and GEOL 27115 cannot be used to fulfill any Northwest Core requirement.

Liberal Arts and Sciences Comprehensive Major, 62-64 hours: B.S.- No Minor Required

CIP: 240101

Requirements

Students working toward a Bachelor of Science degree in Liberal Arts and Sciences must complete a minimum of 40 credit hours at the 300-level or above.

The Northwest Core (48-52 hours)

Recommended:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1

Required Courses

HUM 26103	Western Civilization II: 1500 to the Present	3
PHIL 39171	Introduction to Philosophy	3
SOC 35108	General Anthropology	3
	OR	
SOC 35101	General Sociology	3
HUM 26401	Senior Seminar	1

Students must take courses from each of the following discipline areas:

Mathematics and Philosophy (6)

MATH 17114	General Statistics	3
MATH 17118	College Algebra	3
MATH 17117	Precalculus	4
MATH 17120	Calculus I	4
	Any Philosophy course 200-level or higher for which the prerequisites are met	

Literature

Any 200-level or higher course in English Literature for which the prerequisites are met 6

ENGL 10220 Introduction to Literature cannot count toward this requirement as it is a Northwest Core Requirement.

Fine Arts (6)

Any 300-level or higher course in Art History for which the prerequisites are met
Any 300-level or higher course in Music Literature and History for which the prerequisites are met
Any 300-level or higher History of Theatre course for which the prerequisites are met

Geography (6)

Any 300-level or higher course in Geography for which the prerequisites are met

History and Political Science (6)

Any 300-level or higher History course for which the prerequisites are met
Any 300-level or higher Political Science course for which the prerequisites are met

Life and Physical Sciences

Choose one (1) track: either Life Sciences or Physical Sciences

Life Sciences Track

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1

Physical Sciences Track

GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory	1
	OR	
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

One upper-level Geology course for which the prerequisites are met

Approved Electives in Arts and Sciences

Approved electives in Arts and Sciences 12

General Electives

General electives 12-14

Total Credit Hours: 62-64

HUM 26102, HUM 26103, PHIL 39171, SOC 35108, SOC 35101, MATH 17114, MATH 17118, MATH 17117, MATH 17120, GEOL 27110, GEOL 27111, GEOL 27114, and GEOL 27115 cannot be used to fulfill any Northwest Core requirement.

Liberal Arts and Sciences Minor, 25-26 hours

CIP: 240101

Requirements**Required Courses**

	OR	
HUM 26103	Western Civilization II: 1500 to the Present	3
PHIL 39171	Introduction to Philosophy	3

Choose 1 course (3-4 credit hours) from the following:

MATH 17114	General Statistics	3
MATH 17118	College Algebra	3
MATH 17117	Precalculus	4
MATH 17120	Calculus I	4
	Any Philosophy course 200-level or higher for which the prerequisites are met	

Choose 1 course (3 credit hours) from the following:

Any 300-level or higher English course for which the prerequisites are met 3

Choose 1 course (3 credit hours) from the following:

Any 300-level or higher Art course for which the prerequisites are met 3

Any 300-level or higher Theatre course for which the prerequisites are met 3

Any 300-level or higher Music course for which the prerequisites are met 3

Choose 1 course (3 credit hours) from the following:

Any 300-level or higher course in Geography for which the prerequisites are met
 Any 300-level or higher History course for which the prerequisites are met
 Any 300-level or higher Political Science course for which the prerequisites are met

Choose 1 course and lab (4 credit hours) from the following:

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
	OR	
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
	OR	
GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory	1
	OR	
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

Approved Electives

Approved electives	3
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Total Credit Hours: 25-26

HUM 26102, HUM 26103, PHIL 39171, MATH 17114, MATH 17118, MATH 17117, MATH 17120, GEOL 27110, GEOL 27111, GEOL 27114, and GEOL 27115 cannot be used to fulfill any Northwest Core Requirement.

Geography / 32

Internship and Independent Study

Students may apply for no more than six credit hours of combined internship and independent study hours toward their major requirements.

Major/Minor Shared Core Requirements

For students who have a major in Geography and a minor in Geographic Information Systems (GIS), only the Maps and Map Interpretation course may be counted toward both the major and minor.

Geography Core Requirements

Core Requirements for All Majors in Geography

Courses

GEOL 32201	Maps and Map Interpretation	3
GEOG 32221	Economic Geography	3
GEOG 32340	Geography of North America	3
GEOG 32362	Cartography	3
GEOG 32410	Geographic Thought and Research Methods	3
GEOG 32499	Senior Seminar	1
Subtotal: 16		

Total Credit Hours: 16

Geography Major, 30 hours: B.A.—Minor Required

CIP: 450701

Requirements

The Northwest Core (48-52 hours)

Required Courses

Geography Major Core Requirements

16

Electives in Regional Geography (6):

(Choose two)

GEOG 32441	Geography of Europe	3
GEOG 32442	Geography of Asia	3
GEOG 32443	Geography of the Middle East	3
GEOG 32444	Geography of Africa	3
GEOG 32445	Geography of Latin America	3
GEOG 32511	Special Topics in Geography	1 to 4

Electives in Systematic Geography (8):

GEOG 32102	People and Cultures of the World	3
GEOG 32207	GPS Fundamentals	3
GEOG 32211	Special Topics in Geography	1 to 4
GEOG 32302	Cadastral Mapping	2
GEOG 32360	Dynamic and Synoptic Meteorology	3
GEOG 32361	Climatology	3
GEOG 32363	Remote Sensing	3
GEOG 32365	Geographic Information Systems	3
GEOG 32370	Natural Disasters	3
GEOG 32409	Independent Study in Geography	1 to 3
GEOG 32415	Internship in Geography	1 to 6
GEOG 32465	Introduction to Customized GIS	3
GEOG 32501	Conservation of Natural Resources	3
GEOG 32510	Geographic Education: Themes and Materials	2
GEOG 32511	Special Topics in Geography	1 to 4
GEOG 32520	Military Geography	3
GEOG 32521	Political Geography	3
GEOG 32522	Urban Geography	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
GEOG 32565	Advanced Geographic Information Systems	3
GEOL 27326	Geology of the Natural Parks	3
GEOL 27360	Environmental Geology	4
GEOL 27455	Geologic Field Methods	3
GEOL 27510	Geomorphology	3
GEOL 27515	Environmental Regulations	2
GEOG 32211 (6 hours maximum)		

GEOG 32511 (6 hours maximum or 2 courses)

GEOG 32102 cannot be used as a Northwest Core requirement course if used as an elective in the B.A. Geography major.

Total Credit Hours: 30**Geography Major, 37 hours: B.S.—Minor Required**

CIP: 450701

Requirements**The Northwest Core (48-52 hours)****Required Courses**

Geography Major Core Requirements

16

Electives in Regional Geography (3-6):

(Choose one or two)

GEOG 32441	Geography of Europe	3
GEOG 32442	Geography of Asia	3

GEOG 32443	Geography of the Middle East	3
GEOG 32444	Geography of Africa	3
GEOG 32445	Geography of Latin America	3

Electives in Systematic Geography (15-18):

GEOG 32102	People and Cultures of the World	3
GEOG 32207	GPS Fundamentals	3
GEOG 32211	Special Topics in Geography	1 to 4
GEOG 32302	Cadastral Mapping	2
GEOG 32360	Dynamic and Synoptic Meteorology	3
GEOG 32361	Climatology	3
GEOG 32363	Remote Sensing	3
GEOG 32365	Geographic Information Systems	3
GEOG 32370	Natural Disasters	3
GEOG 32409	Independent Study in Geography	1 to 3
GEOG 32415	Internship in Geography	1 to 6
GEOG 32465	Introduction to Customized GIS	3
GEOG 32501	Conservation of Natural Resources	3
GEOG 32510	Geographic Education: Themes and Materials	2
GEOG 32511	Special Topics in Geography	1 to 4
GEOG 32520	Military Geography	3
GEOG 32521	Political Geography	3
GEOG 32522	Urban Geography	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
GEOG 32565	Advanced Geographic Information Systems	3
GEOL 27326	Geology of the Natural Parks	3
GEOL 27360	Environmental Geology	4
GEOL 27455	Geologic Field Methods	3
GEOL 27510	Geomorphology	3
GEOL 27515	Environmental Regulations	2
GEOG 32211 (6 hours maximum)		

GEOG 32102 cannot be used as a Northwest Core requirement course if used as an elective in the B.S. Geography major.

Total Credit Hours: 37**Geographic Information Science Comprehensive Major, 53-54 hours:
B.S.—No Minor Required**

CIP: 450799

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

GEOG 32101	Introduction to Geography	3
GEOL 27114	General Earth Science AND	3
GEOL 27115	General Earth Science Laboratory OR	1
GEOL 27110	General Geology AND	3
GEOL 27111	General Geology Laboratory	1
MATH 17114	General Statistics	3

Required Courses

GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3

GEOG 32221	Economic Geography	3
GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32365	Geographic Information Systems	3
GEOG 32410	Geographic Thought and Research Methods	3
GEOG 32465	Introduction to Customized GIS	3
GEOG 32499	Senior Seminar	1
GEOG 32565	Advanced Geographic Information Systems	3
CSIS 44141	Computer Programming I	3
CSIS 44346	Database Applications	1

Electives in GIS (6)

(Choose six hours)

GEOG 32415	Internship in Geography	1 to 6
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
	Other advisor-approved electives	

Note: If GEOG 32415 is chosen, it may only be taken for a maximum of 3 credit hours.

Electives in Regional Geography (3):

(Choose three hours)

GEOG 32340	Geography of North America	3
GEOG 32441	Geography of Europe	3
GEOG 32442	Geography of Asia	3
GEOG 32443	Geography of the Middle East	3
GEOG 32444	Geography of Africa	3
GEOG 32445	Geography of Latin America	3

Area of Emphasis (12)

Choose one area of emphasis from the following options:

Data and Technology Emphasis**Required Courses**

CSIS 44241	Computer Programming II	3
CSIS 44460	Database Systems	3

Electives (6)

(Choose 6 hours)

CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3
CSIS 44335	Script Programming	3
CSIS 44356	Network Fundamentals	3
CSIS 44542	Object-Oriented Programming	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44563	Developing Web Applications and Services	3
CSIS 44599	Special Projects	1 to 6
MATH 17599	Special Projects	1 to 6

Geographic Emphasis**Required Course**

GEOG 32522	Urban Geography	3
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Electives (9)

(Choose 9 hours)

GEOG 32360	Dynamic and Synoptic Meteorology	3
GEOG 32361	Climatology	3
GEOG 32370	Natural Disasters	3
GEOG 32501	Conservation of Natural Resources	3

GEOG 32520	Military Geography	3
GEOG 32521	Political Geography	3
GEOL 27510	Geomorphology	3

Earth Technology Emphasis

Required Courses

GEOL 27360	Environmental Geology	4
GEOL 27515	Environmental Regulations	2

Electives (6)

(Choose 6 hours)

GEOL 27335	Physical Oceanography	3
GEOL 27340	Introduction to Hydrogeology	3
GEOL 27510	Geomorphology	3
GEOG 32370	Natural Disasters	3
GEOG 32501	Conservation of Natural Resources	3
BIOL 04420	Environmental Issues	4
BIOL 04474	Wildlife Management and Conservation	2

Civil/Public Emphasis

Required Courses

GEOG 32522	Urban Geography	3
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Electives (9)

(Choose 9 hours)

GEOG 32521	Political Geography	3
POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34502	Public Policy	3
SOC 35316	Urban Sociology	3
ENGL 10315	Writing for the Professions	3

Emergency Management Response Emphasis

Required Courses

SOSC 36301	Introduction to Disaster Response and Recovery	3
SOSC 36302	Principles of Humanitarian Relief	3

Electives (6)

(Choose 6 hours)

GEOG 32370	Natural Disasters	3
SOSC 36450	Homeland Security and Defense	3
PSYC 08345	Disaster Psychology	3
COM 29420	Crisis Communication	1 to 3

Precision Agriculture Emphasis

The offering of this emphasis is contingent upon State approval. First planned offering of this emphasis is Fall 2016.

Required Courses

AGRI 03232	Crop Production	3
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03440	Introduction to Precision Agriculture	3

Electives (3)

(Choose 3 hours)

AGRI 03434	Weed Science: Ecology and Control	3
AGRI 03445	Applied Research in Precision Agriculture	3
AGRI 03536	Soil Fertility	3
AGRI 03582	Plant Diseases	3

Total Credit Hours: 53-54

Note: Students with the comprehensive B.S. in Geographic Information Science can fulfill the Geography minor with an additional regional class (3 hours) and 12 hours of advisor approved 300-level or above courses.

Data Sciences and Informatics Comprehensive Major-GIS Emphasis, 70 hours: B.S.—No Minor Required

CIP: 279999

Requirements**The Northwest Core (48-52 hours)****Core Requirements for a Major in Data Sciences and Informatics****Required Courses**

MATH 17120	Calculus I	4
MATH 17215	Discrete Mathematics	3
MATH 17316	Linear Statistical Models I	3
MATH 17318	Linear Statistical Models II	3
MATH 17356	Data Mining with Applications to Business and Sciences	3
CSIS 44141	Computer Programming I	3
CSIS 44155	Introduction to Data Science and Data Mining	3
CSIS 44241	Computer Programming II	3
CSIS 44413	Visualization	3
CSIS 44317	Management Information Systems	3
CSIS 44460	Database Systems	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
PHIL 39275	Professional Ethics	3
ECON 52150	Principles of Macroeconomics	3

Note: If MATH 17120 is also used to fulfill a Northwest Core requirement, the hours may be counted only once toward the 124 required for graduation.

PHIL 39275 and ECON 52150 fulfill Northwest Core Requirements.

CSIS 44130 is a prerequisite for CSIS 44141 and fulfills a Northwest Core Requirement.

MATH 17114 is a prerequisite for CSIS 44155 and fulfills a Northwest Core Requirement.

Geographic Information Systems (GIS) (24)**Required Courses**

GEOG 32201	Maps and Map Interpretation	3
GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32365	Geographic Information Systems	3
GEOG 32465	Introduction to Customized GIS	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
GEOG 32565	Advanced Geographic Information Systems	3

Total Credit Hours: 70**Geography Minor, 24 hours**

CIP: 450701

Requirements**Required Courses**

GEOG 32201	Maps and Map Interpretation	3
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GEOG 32221	Economic Geography	3
GEOG 32340	Geography of North America	3
GEOG 32410	Geographic Thought and Research Methods	3
	Geography electives (approved)	12

(Electives must include at least 3 hours from each of the two groupings: Regional and Systematic)

Total Credit Hours: 24

Geographic Information Systems Minor, 28 hours

CIP: 450702

This is an interdisciplinary minor in conjunction with the School of Computer Science and Information Systems.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

Geography

GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3
GEOG 32565	Advanced Geographic Information Systems	3

Computer Science

CSIS 44140	Visual Basic Application Programming	3
CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44346	Database Applications	1
CSIS 44460	Database Systems	3

Advisor-Approved Electives

Choose 6 hours from the list below:

GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
CSIS 44242	Data Structures	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44540	Visual Application Development	3
CSIS 44590	Current Topics in Computer Science	1 to 3

Total Credit Hours: 28

History / 33

Advanced Standing Requirement

Majors in history may be admitted to advanced standing in their major when they have 1) been assigned an advisor in their major; and 2) completed, with a grade of "C" or better, at least one course in each of the areas of history, government, social science and humanities/philosophy from the Northwest Core Requirements.

History Core Requirements

Core Requirements for Majors In History

Courses

HUM 26103	OR Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877	3
HIST 33156	OR The United States Since 1877	3
HIST 33301	The Historian's Craft and Its Uses	3
HIST 33591	Research Seminar in History	3

HUM 26102, HUM 26103, HIST 33155, and HIST 33156 can be used to fulfill Northwest Core Requirements or the Core Requirements in the History major but not both.

Total Credit Hours: 12

History Major, 36 hours: B.A.—Minor Required

CIP: 540101

Requirements

The Northwest Core (48-52 hours)

Recommended:

HUM 26102	Western Civilization I: The Ancient World to 1500	3
HUM 26103	OR Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877	3
HIST 33156	OR The United States Since 1877	3

Core Requirements for Majors in History

HUM 26102	Western Civilization I: The Ancient World to 1500	3
HUM 26103	OR Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877	3
HIST 33156	OR The United States Since 1877	3
HIST 33301	The Historian's Craft and Its Uses	3
HIST 33591	Research Seminar in History	3

HUM 26102, HUM 26103, HIST 33155, and HIST 33156 can be used to fulfill Northwest Core Requirements or Core Requirements in the History major but not both.

American History Electives

Choose 4 courses from the following:

HIST 33320	Public History	3
HIST 33350	American Military History	3
HIST 33360	Women and Gender in U.S. History	3
HIST 33365	American Religious History	3
HIST 33388	History of the American Economy	3
HIST 33444	Local History Practicum	3
HIST 33522	The American Colonies	3
HIST 33524	The Early American Republic	3
HIST 33525	United States Since 1945	3

HIST 33534	The Civil War and Reconstruction	3
HIST 33542	American Ideas	3
HIST 33556	The Gilded Age and Progressive Era	3
HIST 33562	The History of Missouri	3
HIST 33565	The History of American Foreign Relations	3
HIST 33582	The American West	3
HIST 33591	Research Seminar in History	3

European History Electives

Choose 3 courses from the following:

HIST 33305	The Ancient World	3
HIST 33310	France Since Louis XIV	3
HIST 33389	Early Modern Europe: The West Meets the World	3
HIST 33503	The Middle Ages	3
HIST 33506	The Renaissance and Reformation	3
HIST 33517	England: From Stonehenge to Versailles	3
HIST 33521	History of Germany Since 1648	3
HIST 33589	Europe in the Age of Nationalism	3
HIST 33591	Research Seminar in History	3

World History Electives

Choose 1 course from the following:

HIST 33306	The Modern World	3
HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33380	Humanitarian Crises of the Modern World	3
HIST 33386	The Pacific Rim	3
HIST 33510	History of Russia	3
HIST 33545	History of Terrorism	3
HIST 33591	Research Seminar in History	3

Total Credit Hours: 36

History Major, 39 hours: B.S.—Minor Required

CIP: 540101

Requirements

The Northwest Core (48-52 hours)

Recommended:

HUM 26102	Western Civilization I: The Ancient World to 1500	3
	OR	
HUM 26103	Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877	3
	OR	
HIST 33156	The United States Since 1877	3

Core Requirements for Majors in History

HUM 26102	Western Civilization I: The Ancient World to 1500	3
	OR	
HUM 26103	Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877	3
	OR	
HIST 33156	The United States Since 1877	3
HIST 33301	The Historian's Craft and Its Uses	3
HIST 33591	Research Seminar in History	3

HUM 26102, HUM 26103, HIST 33155, and HIST 33156 can be used to fulfill Northwest Core Requirements or Core Requirements in the History major but not both.

American History Electives

Choose 4 courses from the following:

HIST 33320	Public History	3
HIST 33350	American Military History	3
HIST 33360	Women and Gender in U.S. History	3
HIST 33365	American Religious History	3
HIST 33388	History of the American Economy	3
HIST 33444	Local History Practicum	3
HIST 33522	The American Colonies	3
HIST 33524	The Early American Republic	3
HIST 33525	United States Since 1945	3
HIST 33534	The Civil War and Reconstruction	3
HIST 33542	American Ideas	3
HIST 33556	The Gilded Age and Progressive Era	3
HIST 33562	The History of Missouri	3
HIST 33565	The History of American Foreign Relations	3
HIST 33582	The American West	3
HIST 33591	Research Seminar in History	3

European History Electives

Choose 3 courses from the following:

HIST 33305	The Ancient World	3
HIST 33310	France Since Louis XIV	3
HIST 33389	Early Modern Europe: The West Meets the World	3
HIST 33503	The Middle Ages	3
HIST 33506	The Renaissance and Reformation	3
HIST 33517	England: From Stonehenge to Versailles	3
HIST 33521	History of Germany Since 1648	3
HIST 33589	Europe in the Age of Nationalism	3
HIST 33591	Research Seminar in History	3

World History Electives

Choose 2 courses from the following:

HIST 33306	The Modern World	3
HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33380	Humanitarian Crises of the Modern World	3
HIST 33386	The Pacific Rim	3
HIST 33510	History of Russia	3
HIST 33545	History of Terrorism	3
HIST 33591	Research Seminar in History	3

Total Credit Hours: 39

History Minor, 21 hours

CIP: 450801

Requirements

The Northwest Core (48-52 hours)

Recommended:

HUM 26102	Western Civilization I: The Ancient World to 1500	3
	OR	
HUM 26103	Western Civilization II: 1500 to the Present	3

HIST 33155	The United States to 1877 OR	3
HIST 33156	The United States Since 1877	3

Core Requirements for Minor in History

HUM 26102	Western Civilization I: The Ancient World to 1500 OR	3
HUM 26103	Western Civilization II: 1500 to the Present	3
HIST 33155	The United States to 1877 OR	3
HIST 33156	The United States Since 1877	3
HIST 33301	The Historian's Craft and Its Uses	3
HIST 33591	Research Seminar in History	3

HUM 26102, HUM 26103, HIST 33155, and HIST 33156 can be used to fulfill Northwest Core Requirements or Core Requirements in the History minor but not both.

American History Electives

Choose 1 course from the following:

HIST 33320	Public History	3
HIST 33350	American Military History	3
HIST 33360	Women and Gender in U.S. History	3
HIST 33365	American Religious History	3
HIST 33388	History of the American Economy	3
HIST 33444	Local History Practicum	3
HIST 33522	The American Colonies	3
HIST 33524	The Early American Republic	3
HIST 33525	United States Since 1945	3
HIST 33534	The Civil War and Reconstruction	3
HIST 33542	American Ideas	3
HIST 33556	The Gilded Age and Progressive Era	3
HIST 33562	The History of Missouri	3
HIST 33565	The History of American Foreign Relations	3
HIST 33582	The American West	3
HIST 33591	Research Seminar in History	3

European History Electives

Choose 1 course from the following:

HIST 33305	The Ancient World	3
HIST 33310	France Since Louis XIV	3
HIST 33389	Early Modern Europe: The West Meets the World	3
HIST 33503	The Middle Ages	3
HIST 33506	The Renaissance and Reformation	3
HIST 33517	England: From Stonehenge to Versailles	3
HIST 33521	History of Germany Since 1648	3
HIST 33589	Europe in the Age of Nationalism	3
HIST 33591	Research Seminar in History	3

World History Electives

Choose 1 course from the following:

HIST 33306	The Modern World	3
HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33380	Humanitarian Crises of the Modern World	3
HIST 33386	The Pacific Rim	3
HIST 33510	History of Russia	3
HIST 33545	History of Terrorism	3
HIST 33591	Research Seminar in History	3

Total Credit Hours: 21**Public History and Museum Studies Minor, 23 hours****CIP: 450805****Requirements****Required Courses**

HIST 33320	Public History	3
HIST 33444	Local History Practicum	3
HIST 33491	Historical Resources Internship	1 to 6
HIST 33491	Historical Resources Internship	1 to 6
POLS 34332	Principles of Public Administration	3

Note: HIST 33491 should be taken twice; one time for 3 credit hours and one time for 2 credit hours with an archival focus.

Electives (9):

Choose one history course 300 level or above 3

Choose two courses from the following:

REC 45547	Grantsmanship	3
REC 45445	Natural Resource History and Interpretation	3
ART 13191	Introduction to Design	3
ART 13292	Computer Graphics I	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
GEOG 32362	Cartography	3
GEOG 32365	Geographic Information Systems	3
GEOG 32465	Introduction to Customized GIS	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MKTG 55332	Promotion	3
COM 29240	Principles of Leadership	3
MMED 20303	Introduction to Web Publishing	3
MMED 20333	Social Media Strategies	3

Total Credit Hours: 23**Philosophy / 39****Advanced Standing Requirement**

To be granted advanced standing, all philosophy majors must have 1) been assigned an advisor in their major; and 2) completed, with a grade of "C" or better, at least one course in each of the areas of history, government, social science and humanities from the Northwest Core Requirements; and 3) completed, with a grade of "C" or better, PHIL 39171 Introduction to Philosophy.

Philosophy Core Requirements**Core Requirements for Majors in Philosophy****Courses**

PHIL 39273	Logic	3
PHIL 39274	Historical Ethics	3
	OR	
PHIL 39275	Professional Ethics	3
	OR	
PHIL 39276	Bio-Medical Ethics	3
PHIL 39376	History of Ancient and Medieval Philosophy	3

PHIL 39377	History of Modern and Contemporary Philosophy	3
PHIL 39570	Metaphysics	3
PHIL 39571	Epistemology	3
PHIL 39401	Senior Seminar	1

PHIL 39274: Cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 19

Philosophy Major, 31 hours: B.A.—Minor Required

CIP: 380101

Requirements

The Northwest Core (48-52 hours)

Required Courses

Core Requirements	19
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Two courses from each of the following groups:

Group A (6):

HIST 33542	American Ideas	3
PHIL 39374	Philosophy of Religion	3
PHIL 39475	Aesthetics	3
PHIL 39590	Advanced Topics	1 to 3
COM 29235	Introduction to Classical Rhetoric	3

Group B (6):

PHIL 39473	Philosophical Anthropology	3
PHIL 39474	Philosophy of the Sciences	3
PHIL 39590	Advanced Topics	1 to 3
PSYC 08310	Cognitive Psychology	3
PSYC 08423	History and Systems of Psychology	3
POLS 34440	Early Western Political Thought	3
POLS 34441	Modern Western Political Thought	3
SCED 28550	History of Science and Technology	3

NOTE: PHIL 39590 Advanced Topics in Philosophy cannot be used for the major more than twice. PSYC 08310 and PSYC 08423 have prerequisite courses determined by their appropriate departments. It is recommended that a student interested in these electives explore the possibility of a minor in these areas.

Total Credit Hours: 31

Philosophy Minor, 18 hours

CIP: 380101

Requirements

Required Courses

PHIL 39274	Historical Ethics	3
	OR	
PHIL 39275	Professional Ethics	3
	OR	
PHIL 39276	Bio-Medical Ethics	3
PHIL 39376	History of Ancient and Medieval Philosophy	3
	OR	
PHIL 39377	History of Modern and Contemporary Philosophy	3
PHIL 39570	Metaphysics	3
PHIL 39571	Epistemology	3

PHIL 39274: Cannot be used to fulfill any Northwest Core requirement.

One elective from each of the groups (A and B) listed in the major requirements, with the following additional options:

Group A:

PHIL 39376	History of Ancient and Medieval Philosophy	3
PHIL 39377	History of Modern and Contemporary Philosophy	3

Group B:

PHIL 39273	Logic	3
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Total Credit Hours: 18

Political Science / 34

Advanced Standing Requirement

All political science majors wishing to apply for advanced standing must have completed the Northwest Core requirement for political science (POLS 34102).

Participation in the Assessment Program

Graduating seniors are expected to take the ACAT, Political Science exam as part of the University's exit assessment program.

Criminology Comprehensive Major, 63 hours: B.S.—No Minor Required

Areas of Emphasis: Adult System, Juvenile System, Diversity

CIP: 450401

Requirements

The Northwest Core (48-52 hours)

Common Core Required for all Criminology Emphases

All students majoring in Criminology (emphases in the Adult System, Juvenile System, and Diversity) are required to complete a Common Required Core, which includes the following:

Common Required Core, 27 hours

POLS 34205	Introduction to Criminal Justice	3
POLS 34338	Rights of the Accused	3
POLS 34459	Justice: Theories and Applications	3
SOC 35321	Criminology	3
SOC 35405	Victimization	3
SOSC 36201	Social Science Research Methods	3
POLS 34491	Research Seminar in Criminology and Criminal Justice	3
MATH 17114	General Statistics	3
PHIL 39275	Professional Ethics	3

Note: MATH 17114 and PHIL 39275 can be used to fulfill Northwest Core requirements but only count once toward the 124 hours needed for the Bachelor of Science degree.

Prerequisite Courses, 6 hours

SOC 35101	General Sociology	3
PSYC 08103	General Psychology	3

Note: SOC 35101 and PSYC 08103 are prerequisite courses for Sociology and Psychology courses. SOC 35101 and PSYC 08103 can be used to fulfill Northwest Core requirements, but do not count toward the hours needed for the major.

Criminology: Adult System Emphasis

Students choosing a Comprehensive Major in Criminology with Emphasis in the Adult System must take the Common Required Core (27 credit hours) plus the following major requirements:

Required Courses

Common Required Core	27
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Adult System Required Course

PSYC 08365	Social Psychology	3
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Criminal Justice, Processes, and Institutions

Choose 4 courses from the following:

SOC 35240	Introduction to Corrections	3
SOC 35375	Police and Society	3
SOC 35215	Probation and Parole	3
SOC 35305	Evidence and Investigation	3
POLS 34496	Internship in Political Science-non-major/minor credit OR	1 to 6
SOC 35495	Field Experience/Internship in Sociology/Social Work/Corrections	3

Note: POLS 34496, if chosen, should be taken for 3 credit hours.

Adult System Electives**Political Science and History**

Choose 4 courses from the following:

POLS 34321	American Federalism	3
POLS 34315	Juvenile Justice System in America	3
POLS 34340	Law and Politics	3
POLS 34363	Crime and Punishment	3
POLS 34364	Criminal Law and Procedure	3
POLS 34366	Crime and Security Issues	3
HIST 33545	History of Terrorism	3

Sociology

Choose 2 courses from the following:

SOC 35320	Delinquency	3
SOC 35323	Deviant Behavior	3
SOC 35330	Social Stratification	3
SOC 35337	Race and Ethnic Issues in Modern Society	3

Any course not taken in Criminal Justice Institutions section above

Additional Electives

Choose 1 course from the following:

SOSC 36301	Introduction to Disaster Response and Recovery	3
SOSC 36450	Homeland Security and Defense	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3
GEOG 32522	Urban Geography	3
PSYC 08223	Abnormal Psychology	3
PSYC 08315	Psychology of Groups and Teams	3

Criminology: Juvenile System Emphasis

Students choosing a Comprehensive Major in Criminology with Emphasis in Juvenile System must take the Common Required Core (27 credit hours) plus the following major requirements:

Required Courses

Common Required Core	27
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Required Juvenile System Courses

POLS 34315	Juvenile Justice System in America	3
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POLS 34469	Advanced Studies in Juvenile Justice	3
SOC 35320	Delinquency	3
SOC 35375	Police and Society	3
SOC 35443	Family Problems in Modern Society	3
PSYC 08323	Child and Adolescent Psychopathology	3

Juvenile System Electives

Criminal Justice, Processes, and Institutions

Choose 3 courses from the following:

SOC 35240	Introduction to Corrections	3
SOC 35215	Probation and Parole	3
SOC 35305	Evidence and Investigation	3
POLS 34321	American Federalism	3
POLS 34496	Internship in Political Science-non-major/minor credit	1 to 6
SOC 35495	Field Experience/Internship in Sociology/Social Work/Corrections	3

Note: POLS 34496, if taken, should be taken for 3 credit hours.

Additional Electives

Choose 3 courses from the following:

SOC 35323	Deviant Behavior	3
PSYC 08365	Social Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08344	Drugs, Brain, and Behavior	3
POLS 34363	Crime and Punishment	3
	Any course from Political Science or Sociology chosen with Advisor Approval	3

Criminology: Diversity Emphasis

Students choosing a Comprehensive Major in Criminology with Emphasis in Diversity must take the Common Required Core (27 credit hours) plus the following major requirements:

Required Courses

Common Required Core	27
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Diversity Required Courses

POLS 34524	Minority, Gender, and Sexual Politics	3
SOC 35337	Race and Ethnic Issues in Modern Society	3
SOC 35323	Deviant Behavior	3
SOC 35330	Social Stratification	3
SOC 35375	Police and Society	3
PSYC 08353	Psychology of Race and Gender	3
COM 29225	Intercultural Communication	3

Diversity Electives

Choose 5 courses from at least 3 of the following groups:

Geography

GEOG 32221	Economic Geography	3
GEOG 32521	Political Geography	3
GEOG 32522	Urban Geography	3

Sociology

SOC 35316	Urban Sociology	3
SOC 35240	Introduction to Corrections	3
SOC 35215	Probation and Parole	3
SOC 35305	Evidence and Investigation	3

Political Science

POLS 34315	Juvenile Justice System in America	3
POLS 34321	American Federalism	3
POLS 34364	Criminal Law and Procedure	3
POLS 34363	Crime and Punishment	3
POLS 34366	Crime and Security Issues	3
POLS 34438	Civil Liberties	3
POLS 34469	Advanced Studies in Juvenile Justice	3

History

HIST 33360	Women and Gender in U.S. History	3
HIST 33545	History of Terrorism	3
	Any course from History with advisor approval	

Other Courses

HPER 22554	Human Sexuality	3
HUM 26162	Comparative Religions	3
POLS 34496	Internship in Political Science-non-major/minor credit	1 to 6
SOC 35495	Field Experience/Internship in Sociology/Social Work/Corrections	3

Note: COM 29225 or HUM 26162 can fulfill a Northwest Core requirement. However, the course may only count once toward the 124 hours required for the Bachelor or Science degree.

Note: POLS 34496, if chosen, should be taken for 3 hours.

Total Credit Hours: 63**Political Science Core Requirements****Core Requirements for Majors in Political Science****Core A—American Government and Politics**

POLS 34301	Parties and Interest Groups	3
POLS 34302	The American Presidency	3
POLS 34303	The American Congress	3
POLS 34401	News Media and Politics	3
POLS 34502	Public Policy	3

Core B—Comparative Politics and International Relations

POLS 34310	Comparative Government	3
POLS 34421	International Conflict Resolution	3
POLS 34515	Revolutions & Social Movements	3
POLS 34305	Global Events and Trends	3

Core C—Public Administration

POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34435	Public Management	3

Core D—Law and Courts

POLS 34340	Law and Politics	3
POLS 34436	Constitutional Law	3
POLS 34438	Civil Liberties	3

Core E—Political Theory and Thought

POLS 34215	Introduction to Political Theory	3
POLS 34440	Early Western Political Thought	3
POLS 34441	Modern Western Political Thought	3

Political Science Comprehensive Major, 55-58 hours: B.S.—No Minor Required

Areas of Emphasis: Public Administration, Criminology and Criminal Justice, Global Affairs

CIP: 451001**Political Science: Public Administration Emphasis, 55 hours****The Northwest Core (48-52 hours)**

Must include the following:

MATH 17114	General Statistics	3
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Required Courses

POLS 34210	Exploring Politics	3
POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34435	Public Management	3
POLS 34490	Senior Seminar	1
POLS 34502	Public Policy	3
	One course each from Core A, B, D, and E not included above	12

Twenty-seven hours of electives selected from the following:

POLS 34495	Internship in Political Science	1 to 6
	Political Science Electives/Approved Electives	21 to 27

Note: POLS 34495, if taken, should be taken for no less than 3 hours. Also, no more than nine hours of electives may come from disciplines outside Political Science.

Political Science: Criminal Justice and Criminology Emphasis, 58 hours**The Northwest Core (48-52 hours)**

Must include the following:

SOC 35101	General Sociology	3
MATH 17114	General Statistics	3

Required Courses

POLS 34210	Exploring Politics	3
POLS 34205	Introduction to Criminal Justice	3
POLS 34315	Juvenile Justice System in America	3
POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34338	Rights of the Accused	3
POLS 34490	Senior Seminar	1
	One course each from Core A, B, D, and E not included above	12
	Political Science Electives	9
SOC 35240	Introduction to Corrections	3
SOC 35375	Police and Society	3
SOC 35321	Criminology	3
ENGL 10315	Writing for the Professions	3

Choose 6 hours from two of the four groups below:

Note: No more than 3 hours are allowed from a single area.

Group 1: Crisis Response

SOSC 36301	Introduction to Disaster Response and Recovery	3
COM 29420	Crisis Communication	1 to 3
SOSC 36450	Homeland Security and Defense	3

Note: COM 29420, if chosen, should be taken for 3 hours.

Group 2: Society

SOC 35230	Social Problems	3
SOC 35316	Urban Sociology	3
SOC 35320	Delinquency	3
SOC 35323	Deviant Behavior	3
SOC 35337	Race and Ethnic Issues in Modern Society	3

PSYC 08365	Social Psychology	3
SCGD 68520	Drug Prevention and Education in Schools	3

Group 3: Psychological Foundations

PSYC 08223	Abnormal Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08353	Psychology of Race and Gender	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08438	Principles of Counseling	3
PSYC 08344	Drugs, Brain, and Behavior	3

Group 4: Geography

GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3
GEOG 32522	Urban Geography	3

Political Science: Global Affairs Emphasis, 58 hours**The Northwest Core (48-52 hours)**

Must include the following:

SOC 35101	General Sociology	3
MATH 17114	General Statistics	3
PHIL 39171	Introduction to Philosophy OR	3
HUM 26102	Western Civilization I: The Ancient World to 1500 OR	3
HUM 26103	Western Civilization II: 1500 to the Present	3
HUM 26104	The Eastern World OR	3
POLS 34105	The African World	3

Required Courses

POLS 34210	Exploring Politics	3
	All courses in Core B	12
	One course each from Core A, C, D, and E	12
POLS 34320	Politics and Propaganda in Film	3
POLS 34490	Senior Seminar	1
POLS 34524	Minority, Gender, and Sexual Politics	3
	Political Science Electives	6
	Advisor-approved electives	9

Choose one course from each of the three groups below:**Group 1: Western/Developed World**

HIST 33310	France Since Louis XIV	3
HIST 33389	Early Modern Europe: The West Meets the World	3
HIST 33510	History of Russia	3
HIST 33517	England: From Stonehenge to Versailles	3
HIST 33521	History of Germany Since 1648	3
HIST 33565	The History of American Foreign Relations	3
HIST 33589	Europe in the Age of Nationalism	3

Group 2: Non-Western/Developing World

HUM 26105	Information Technology and Culture	3
HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33386	The Pacific Rim	3
HIST 33380	Humanitarian Crises of the Modern World	3

Group 3: Geography

GEOG 32340	Geography of North America	3
GEOG 32441	Geography of Europe	3

GEOG 32442	Geography of Asia	3
GEOG 32521	Political Geography	3

Total Credit Hours: 55-58

Political Science Major, 31 hours: B.A.—Minor Required

CIP: 451001

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
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Required Courses

POLS 34210	Exploring Politics	3
POLS 34215	Introduction to Political Theory	3
POLS 34490	Senior Seminar	1
	One course from each of Core A, B, C, D, E	15
	An additional course from 2 of the 5 cores (A, B, C, D, E)	6
	Political Science Electives	3

Total Credit Hours: 31

Political Science Major, 37 hours: B.S.—Minor Required

CIP: 451001

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
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Required Courses

POLS 34210	Exploring Politics	3
POLS 34215	Introduction to Political Theory	3
POLS 34490	Senior Seminar	1
	One course from each of Core A, B, C, D, E	15
	An additional course from 2 of the 5 cores (A, B, C, D, E)	6
	Political Science Electives	9

Total Credit Hours: 37

Political Science Minor, 24 hours

CIP: 451001

Requirements

Required Courses

POLS 34210	Exploring Politics	3
	One course from each of Core A, B, C, D, E	15
	Political Science Electives	6

Total Credit Hours: 24

Public Administration Minor, 24 hours

CIP: 440401

Requirements

Required Courses

POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34435	Public Management	3
POLS 34502	Public Policy	3
MGMT 54316	Organizational Behavior and Theory	3
	OR	
POLS 34495	Internship in Political Science	1 to 6
	Political Science Electives	9

Note: POLS 34495, if chosen, should be taken for 3 hours.

Total Credit Hours: 24

Criminology and Criminal Justice Minor, 24 hours

CIP: 430104

Requirements

Required Courses

POLS 34205	Introduction to Criminal Justice	3
POLS 34315	Juvenile Justice System in America	3
POLS 34338	Rights of the Accused	3
PSYC 08223	Abnormal Psychology	3
	OR	
PSYC 08333	Developmental Psychology	3
SOC 35320	Delinquency	3
	OR	
SOC 35321	Criminology	3
SOC 35375	Police and Society	3
	Approved Electives	6

Total Credit Hours: 24

International Studies Minor, 24 hours

CIP: 450901

Requirements

Required Courses

	Modern Language	6
POLS 34305	Global Events and Trends	3
POLS 34310	Comparative Government	3

(Modern Language Requirement: Minimum of 3 hours must be 200-level or above; all 6 hours must be in the same language)

Regional Geography Course (3)

Elective sequences should be chosen in consultation with the International Studies advisor. Choose one course from the following:

GEOG 32340	Geography of North America	3
GEOG 32441	Geography of Europe	3
GEOG 32442	Geography of Asia	3
GEOG 32444	Geography of Africa	3
GEOG 32445	Geography of Latin America	3

Non-Western History Course (3)

Elective sequences should be chosen in consultation with the International Studies advisor. Choose one course from the following:

HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33386	The Pacific Rim	3

Electives (6)

Choose two courses from the following:

ART 13399	International Studies in Studio	3
GEOG 32521	Political Geography	3
POLS 34515	Revolutions & Social Movements	3
POLS 34421	International Conflict Resolution	3
ECON 52450	International Economics	3
MKTG 55438	International Business	3
	Advisor-approved electives	3

Total Credit Hours: 24

Social Science / 36

Advanced Standing Requirement

Majors in social science may be admitted to advanced standing in their major when they have 1) been assigned an advisor in their major; and 2) completed, with a grade of C or better, at least one course in each of the areas of history, government, social science and humanities/philosophy from The Northwest Core Requirements (p. 65).

Social Science Core Requirements

Core Requirements for Majors in Social Science

Courses

ECON 52151	Principles of Microeconomics	3
GEOG 32101	Introduction to Geography	3
HIST 33301	The Historian's Craft and Its Uses	3
HIST 33591	Research Seminar in History	3
HUM 26103	Western Civilization II: 1500 to the Present	3
SOC 35101	General Sociology OR	3
SOC 35108	General Anthropology	3
HUM 26103: Cannot be used to fulfill any Northwest Core Requirement.		

Total Credit Hours: 18

Social Science Comprehensive Major, 54 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)

CIP: 131317

Requirements

The Northwest Core (48-52 hours)

Must include the following:

ECON 52150	Principles of Macroeconomics	3
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Required Courses

Core Requirements	18
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American History (12)

HIST 33388	History of the American Economy	3
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HIST 33524	The Early American Republic Electives in American History	3 6
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World History (12)

HIST 33517	England: From Stonehenge to Versailles Electives in World History	3 3
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Choose 2 courses from the following:

HIST 33370	History of the Near and Middle East	3
HIST 33375	History of Latin America	3
HIST 33386	The Pacific Rim	3
HIST 33510	History of Russia	3

Political Science (9)

Choose two from the following:

POLS 34302	The American Presidency	3
POLS 34303	The American Congress	3
POLS 34321	American Federalism	3
POLS 34401	News Media and Politics Elective in Political Science	3 3

Behavioral Science Elective (3)

Choose one class from Anthropology, Sociology or Psychology

PSYC 08299 Educational Psychology and PSYC 08322 Adolescent Psychology are completed as part of the Professional Education requirements.

SOSC 36480 Methods in Secondary School Social Sciences is to be completed as part of the Professional Education requirements.

Total Credit Hours: 54

This major, when completed under the B.S.Ed. Secondary Program will meet Missouri teacher certification standards for Social Studies grades 9-12.

Emergency and Disaster Management Major, 36 hours: B.S.—Minor Required

CIP: 430302

Requirements**The Northwest Core (48-52 hours)****Core Requirements**

COM 29420	Crisis Communication	1 to 3
GEOG 32370	Natural Disasters	3
POLS 34321	American Federalism	3
PSYC 08345	Disaster Psychology	3
SOSC 36301	Introduction to Disaster Response and Recovery	3
SOSC 36302	Principles of Humanitarian Relief	3
SOSC 36450	Homeland Security and Defense	3

COM 29420 *Crisis Communication* must be taken for 3 credit hours.

Required Courses

SOSC 36490	Internship in Emergency and Disaster Management	1 to 3
SOSC 36491	Field Experience in Emergency and Disaster Management	1 to 3

SOSC 36490 *Internship in Emergency and Disaster Management* and SOSC 36491 *Field Experience in Emergency Disaster Management* must be taken for 3 credit hours each.

Choose one option below:**Option 1: General (9)**

Select one course from each group:

Group A: Spatial Operations

GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3
GEOG 32522	Urban Geography	3

Group B: Problems and Resolutions

PSYC 08335	Introduction to Case Management	3
HIST 33380	Humanitarian Crises of the Modern World	3
POLS 34332	Principles of Public Administration	3
POLS 34421	International Conflict Resolution	3

Group C: Administration and Management

PSYC 08315	Psychology of Groups and Teams	3
COM 29432	Organizational Communication	3
COM 29360	Principles of Public Relations	3
POLS 34502	Public Policy	3

Option 2: Business Continuity (9)

Advisor-approved electives

Courses taken through University of Central Missouri online.

Option 3: Hazardous Material (9)

Advisor-approved electives

Courses taken through University of Central Missouri online.

Total Credit Hours: 36

Social Science Certification, 21 hours: B.S.Ed., Major in Middle School (Certifies Grades 5-9)

CIP: 131317

Requirements

Required Courses

HUM 26103	Western Civilization II: 1500 to the Present	3
ECON 52150	Principles of Macroeconomics	3
SOC 35101	General Sociology	3
GEOG 32101	Introduction to Geography	3
POLS 34321	American Federalism	3
	Select two courses in History numbered 33300 and above	6

HUM 26103: Cannot be used to fulfill any Northwest Core Requirement.

Total Credit Hours: 21

This listing meets the Missouri certification standards for concentration requirements under the Middle School Major.

Emergency and Disaster Management Minor, 27 hours

CIP: 430302

Requirements

Core Requirements

PSYC 08345	Disaster Psychology	3
COM 29420	Crisis Communication	1 to 3
SOSC 36301	Introduction to Disaster Response and Recovery	3
SOSC 36302	Principles of Humanitarian Relief	3
SOSC 36450	Homeland Security and Defense	3

COM 29420 Crisis Communication must be taken for 3 credit hours.

Select one course from each group (9)**Group A—Spatial Operations:**

GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3
GEOG 32522	Urban Geography	3

Group B—Problems and Resolutions:

PSYC 08335	Introduction to Case Management	3
HIST 33380	Humanitarian Crises of the Modern World	3
POLS 34332	Principles of Public Administration	3
POLS 34421	International Conflict Resolution	3

Group C—Administration and Management:

PSYC 08315	Psychology of Groups and Teams	3
COM 29360	Principles of Public Relations	3
COM 29432	Organizational Communication	3
POLS 34502	Public Policy	3

Electives/Special Projects (3)**Total Credit Hours: 27**

Mathematics and Statistics Department / 17

Chairperson: Christine Benson

Faculty: Russell Euler, Kurtis Fink, Brian Haile, Christina Heintz, Justin Hoffmeier, Lynda Hollingsworth, Cheryl Gregorson Malm, Jawad Sadek, Mary Shepherd, Brian Swink, Csilla Tasi, David Vlieger, Jennifer Wall, Han Yu

Statement of Mission

The mission of the Department of Mathematics and Statistics is to offer students opportunities to see and explore the beauty and utility of mathematics. Degree programs emphasizing mathematics, statistics, or mathematics education provide focused experiences, both in and out of the classroom, with sufficient breadth to facilitate lifelong learning.

A goal of each degree program is to provide a quality curriculum enabling each student to compete successfully in the job market or continue in graduate studies.

Mathematics and statistics courses, including those in The Northwest Core, empower students to be productive citizens, to make informed decisions and add value to society.

Degree Programs

The Department of Mathematics and Statistics offers programs leading to both comprehensive and non-comprehensive Bachelor of Arts degrees in Mathematics and the Bachelor of Science degrees in the areas of mathematics, including the options for an emphasis in Data Science. For students interested in teaching mathematics in grades 9-12, the department offers the Bachelor of Science in Education degree with a major in mathematics education. In addition, there are minors in mathematics education (grades 9-12), mathematics education (middle school), mathematics (calculus based), mathematics (non-calculus based), and statistics.

Students in the mathematics major develop their abilities to interpret, solve, and explain problems. Through a balanced selection of coursework from both pure and applied mathematics, students expand their understanding of how data analysis and mathematical modeling impact aspects of contemporary society. Education majors also learn how to help students understand these aspects of mathematics. Students who incorporate preparatory work in actuarial science into a mathematics major (with a possible economics minor) can choose courses leading to VEE credit from the Society of Actuaries in Economics, Corporate Finance, and Applied Statistical Methods, as well as courses preparing them for three actuarial exams (administered by the Society of Actuaries).

In all of these programs, students learn fundamental concepts while engaging in activities similar to those encountered in the workplace. Small classes taught by full-time faculty using active learning instructional paradigms focus on the student's learning process, with the teacher's role that of guide, facilitator and mentor.

All of these programs are supported by a wide variety of computing facilities ranging from local area networks of microcomputers to campus-wide access to an international network of computing services.

Test-Out Policy

Undergraduate students may test out of certain lower division courses in mathematics. Examinations are available each trimester. See the department chairperson for courses that are available for test-out.

Advanced Standing Requirement

In order to achieve advanced standing in the Department of Mathematics and Statistics, a student must have a grade of "C" or better in each of the courses MATH 17120 Calculus I, MATH 17121 Calculus II, MATH 17215 Discrete Mathematics and MATH 17319 Graph Theory. As long as proper prerequisites are satisfied, all mathematics courses are open to enrollment, regardless

of whether or not advanced standing has been granted. In exceptional cases, a student who has not met the criteria may appeal to a departmental committee. The committee will hear the appeal and decide whether advanced standing should be granted.

Co-requisites Mathematics

A minimum math ACT score of 22 or a minimum high school cumulative GPA of 3.0 is required for admission to most Northwest Core Mathematical Reasoning courses. For each Mathematical Reasoning course in The Northwest Core, students who lack the prerequisite requirements must also take concurrently a co-requisite STRATEGIES course designed to help them be successful in the content of the college credit-bearing course. Co-requisite pairings are as follows:

MATH 17115 Concepts of Mathematics

MATH 17015 Strategies for Concepts of Mathematics

MATH 17114 General Statistics

MATH 17014 Strategies for General Statistics

MATH 17118 College Algebra

MATH 17018 Strategies for College Algebra

MATH 17171 Fundamentals of Mathematics

MATH 17071 Strategies for Fundamentals of Mathematics

See MATH 17117 Precalculus and MATH 17120 Calculus I course descriptions for prerequisites, which are greater.

Senior Assessment

For each of the majors in Mathematics, a senior-level major field assessment must be completed by each student.

Data Sciences and Informatics Comprehensive Major, 67-79 hours: B.S.—No Minor Required

Areas of Emphasis: Computer Science (p. 255), Business (p. 228), Molecular Biology (p. 176), GIS (p. 132)

CIP: 279999

Requirements

The Northwest Core (48-52 hours)

Core Requirements for a Major in Data Sciences and Informatics

Required Courses

MATH 17120	Calculus I	4
MATH 17215	Discrete Mathematics	3
MATH 17316	Linear Statistical Models I	3
MATH 17318	Linear Statistical Models II	3
MATH 17356	Data Mining with Applications to Business and Sciences	3
CSIS 44141	Computer Programming I	3
CSIS 44155	Introduction to Data Science and Data Mining	3

CSIS 44241	Computer Programming II	3
CSIS 44413	Visualization	3
CSIS 44317	Management Information Systems	3
CSIS 44460	Database Systems	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
PHIL 39275	Professional Ethics	3
ECON 52150	Principles of Macroeconomics	3

Note: If MATH 17120 is also used to fulfill a Northwest Core requirement, the hours may be counted only once toward the 124 required for graduation.

PHIL 39275 and ECON 52150 fulfill Northwest Core Requirements.

CSIS 44130 is a prerequisite for CSIS 44141 and fulfills the Digital Literacy requirement of the Northwest Core.

MATH 17114 is a prerequisite for CSIS 44155 and fulfills a Northwest Core Requirement.

Total Credit Hours: 67-79

Mathematics and Mathematics Education Foundational Requirements

Foundational Requirements

To achieve the common objectives, all majors in Mathematics are required to complete a common foundational set of 21 semester hours and participate in senior assessment. The area's common foundational requirements are:

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17230	Probability and Statistics	3
MATH 17311	Linear Algebra	3
MATH 17495	Seminar in Mathematics	2

MATH 17120: This course fulfills a Northwest Core requirement as well as a requirement of the major, but the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics	3
	OR	
MATH 17319	Graph Theory	3

A Professions course chosen from:

INCO 77297	Profession-Based Work Experience	1 to 3
	OR	
MATH 17197	Exploring Mathematics-Related Fields	1

Total Credit Hours: 21-23

Mathematics Major, 36-37 hours: B.A., B.S.—Minor Required

CIP: 270101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17120	Calculus I	4
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Recommended:

CSIS 44101	Foundations of Computing	3
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	OR	
CSIS 44130	Computers and Information Technology	3

Foundational Requirements

To achieve the common objectives, all majors in Mathematics are required to complete a common foundational set of 21 semester hours and participate in senior assessment. The area's common foundational requirements are:

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17230	Probability and Statistics	3
MATH 17311	Linear Algebra	3
MATH 17495	Seminar in Mathematics	2

MATH 17120: This course fulfills a Northwest Core requirement as well as a requirement of the major, but the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics	3
	OR	
MATH 17319	Graph Theory	3

A Professions course chosen from:

INCO 77297	Profession-Based Work Experience	1 to 3
	OR	
MATH 17197	Exploring Mathematics-Related Fields	1

Required Courses

MATH 17390	Transition to Proofs	3
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A Programming course chosen from:

CSIS 44141	Computer Programming I	3
	OR	
CSIS 44149	Scientific Computing	3

Note: CSIS 44141 and CSIS 44149 have a Northwest Core requirement for Digital Literacy as a prerequisite.

One course chosen from:

MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3
MATH 17421	Introduction to Analysis	3
MATH 17520	Applied Analysis	3

Approved departmental electives

Electives (6-7 hours), if not chosen above, chosen from:

MATH 17215	Discrete Mathematics	3
MATH 17319	Graph Theory	3
MATH 17321	Calculus III	4
MATH 17351	College Geometry	3
MATH 17361	Differential Equations	3
MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3
MATH 17511	Applied Linear Algebra	3
MATH 17421	Introduction to Analysis	3
MATH 17518	Number Theory	3
MATH 17520	Applied Analysis	3

Note: A B.A. degree also requires 9 credit hours of a modern language.

Total Credit Hours: 36-37

Mathematics Comprehensive Major, 45-46 hours: B.A., B.S.—No Minor Required

CIP: 270101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17120	Calculus I	4
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Recommended:

CSIS 44101	Foundations of Computing OR	3
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CSIS 44130	Computers and Information Technology	3
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Foundational Requirements

To achieve the common objectives, all majors in Mathematics are required to complete a common foundational set of 21 semester hours and participate in senior assessment. The area's common foundational requirements are:

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17230	Probability and Statistics	3
MATH 17311	Linear Algebra	3
MATH 17495	Seminar in Mathematics	2

MATH 17120: This course fulfills a Northwest Core requirement as well as a requirement of the major, but the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics OR	3
MATH 17319	Graph Theory	3

A Professions course chosen from:

INCO 77297	Profession-Based Work Experience OR	1 to 3
MATH 17197	Exploring Mathematics-Related Fields	1

Mathematics Emphasis

CSIS 44149	Scientific Computing	3
MATH 17390	Transition to Proofs	3

Note: CSIS 44149 has a Northwest Core requirement for Digital Literacy as a prerequisite.

An Algebra course chosen from:

MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3

An Analysis course chosen from:

MATH 17421	Introduction to Analysis	3
MATH 17520	Applied Analysis	3

Second course for depth not already taken in core or specific requirements chosen from:

MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3
MATH 17421	Introduction to Analysis	3
MATH 17520	Applied Analysis	3
MATH 17511	Applied Linear Algebra	3

Approved departmental electives

Electives (9-10 hours), if not chosen above, chosen from:

MATH 17215	Discrete Mathematics	3
MATH 17319	Graph Theory	3
MATH 17321	Calculus III	4
MATH 17351	College Geometry	3
MATH 17361	Differential Equations	3
MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3
MATH 17421	Introduction to Analysis	3
MATH 17518	Number Theory	3
MATH 17511	Applied Linear Algebra	3
MATH 17520	Applied Analysis	3

Note: A B.A. degree also requires 9 credit hours of a modern language.

Total Credit Hours: 45-46

Mathematics Comprehensive Major-Data Science Emphasis, 44 hours: B.A., B.S.—No Minor Required

CIP: 270101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17120	Calculus I	4
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Recommended:

CSIS 44101	Foundations of Computing	3
	OR	
CSIS 44130	Computers and Information Technology	3

Foundational Requirements

To achieve the common objectives, all majors in Mathematics are required to complete a common foundational set of 21 semester hours and participate in senior assessment. The area's common foundational requirements are:

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17230	Probability and Statistics	3
MATH 17311	Linear Algebra	3
MATH 17495	Seminar in Mathematics	2

MATH 17120: This course fulfills a Northwest Core requirement as well as a requirement of the major, but the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics	3
	OR	
MATH 17319	Graph Theory	3

A Professions course chosen from:

INCO 77297	Profession-Based Work Experience	1 to 3
	OR	
MATH 17197	Exploring Mathematics-Related Fields	1

Data Sciences Emphasis

CSIS 44149	Scientific Computing	3
MATH 17316	Linear Statistical Models I	3

MATH 17531	Applied Time Series	2
MATH 17366	Statistical Machine Learning for Pattern Recognition	3
MATH 17318	Linear Statistical Models II	3

Note: CSIS 44149 has a Northwest Core requirement for Digital Literacy as a prerequisite.

Three departmental approved electives

Courses from business, computer science, or mathematics at 300/400/500 level for 9 hours

Note: A B.A. degree also requires 9 credit hours of a modern language.

Total Credit Hours: 44**Mathematics Education Comprehensive Major, 46 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)**

CIP: 131311

Requirements**Professional Education Requirements**

See Secondary Education Major Requirements (p. 279)

The Northwest Core (48-52 hours)**Must include the following:**

MATH 17120	Calculus I	4
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Recommended:

CSIS 44101	Foundations of Computing	3
	OR	
CSIS 44130	Computers and Information Technology	3

Foundational Requirements

To achieve the common objectives, all majors in Mathematics are required to complete a common foundational set of 21 semester hours and participate in senior assessment. The area's common foundational requirements are:

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17230	Probability and Statistics	3
MATH 17311	Linear Algebra	3
MATH 17495	Seminar in Mathematics	2

MATH 17120: This course fulfills a Northwest Core requirement as well as a requirement of the major, but the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics	3
	OR	
MATH 17319	Graph Theory	3

A Professions course chosen from:

INCO 77297	Profession-Based Work Experience	1 to 3
	OR	
MATH 17197	Exploring Mathematics-Related Fields	1

Mathematics Education

CSIS 44149	Scientific Computing	3
MATH 17390	Transition to Proofs	3
MATH 17351	College Geometry	3
MATH 17497	Connections to Teaching Mathematics	1

MATH 17280	Methods in Teaching with Technology	3
MATH 17580	Methods in Secondary School Mathematics	3

Note: CSIS 44149 has a Northwest Core requirement for Digital Literacy as a prerequisite.

An Algebra course chosen from:

MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3

An Analysis course chosen from:

MATH 17421	Introduction to Analysis	3
MATH 17520	Applied Analysis	3

Approved departmental electives

Electives (3 hours), if not chosen above, chosen from:

MATH 17215	Discrete Mathematics	3
MATH 17319	Graph Theory	3
MATH 17321	Calculus III	4
MATH 17351	College Geometry	3
MATH 17361	Differential Equations	3
MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3
MATH 17421	Introduction to Analysis	3
MATH 17518	Number Theory	3
MATH 17511	Applied Linear Algebra	3
MATH 17520	Applied Analysis	3

Total Credit Hours: 46

This major meets Missouri certification standards.

Mathematics Minor (Calculus based), 21-22 hours

CIP: 270101

Required Courses**Required Courses**

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
MATH 17311	Linear Algebra	3
	Approved departmental electives	9 to 10

Note: If MATH 17120 is also used to fulfill a Northwest Core Requirement, the number of credit hours may be counted only once toward the 124 required for graduation.

Total Credit Hours: 21-22**Mathematics Minor (Non-Calculus based), 22 hours**

CIP: 270101

Requirements**A course chosen from:**

MATH 17117	Precalculus	4
MATH 17120	Calculus I	4

Note: If MATH 17117 or MATH 17120 is also used to fulfill a Northwest Core Requirement, the number of credit hours may be counted only once toward the 124 required for graduation.

A Discrete course chosen from:

MATH 17215	Discrete Mathematics	3
MATH 17319	Graph Theory	3

Required Courses

MATH 17311	Linear Algebra	3
MATH 17390	Transition to Proofs	3

A proofs course chosen from:

MATH 17351	College Geometry	3
MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3

Electives

Approved departmental electives	6
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Total Credit Hours: 22**Statistics Minor, 24 hours**

CIP: 270501

Requirements**Required Courses**

MATH 17114	General Statistics	3
	OR	
MATH 17230	Probability and Statistics	3
MATH 17316	Linear Statistical Models I	3
CSIS 44149	Scientific Computing	3
	Electives from mathematics or statistics with at least 2 semester hours in statistics to total 24 hours	15

CSIS 44149: A Northwest Core requirement for Digital Literacy is a prerequisite course.

Total Credit Hours: 24**Mathematics Education Minor, 24 hours: B.S.Ed.**

CIP: 131311

Required Courses**Required Courses**

MATH 17171	Fundamentals of Mathematics	3
MATH 17114	General Statistics	3
MATH 17117	Precalculus	4
MATH 17120	Calculus I	4
MATH 17280	Methods in Teaching with Technology	3
MATH 17371	Algebra and Geometry for Elementary and Middle School Teachers	3
MATH 17473	Advanced Topics for Middle School Teachers	3
MATH 17497	Connections to Teaching Mathematics	1

This 24-hour minor will meet the concentration requirements for the Middle School Major

MATH 17582 Mathematics Methods for Middle School Teachers is the required subject field methods course. This course is part of the professional education requirements for certification.

If MATH 17171 is also used to fulfill a Northwest Core Requirement, the hours may be counted only once toward the 124 required for graduation.

Total Credit Hours: 24

Mathematics Education Minor, 36 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)

CIP: 131311

Requirements

Required Courses

MATH 17120	Calculus I	4
MATH 17121	Calculus II	5
CSIS 44149	Scientific Computing	3
MATH 17230	Probability and Statistics	3
MATH 17280	Methods in Teaching with Technology	3
MATH 17311	Linear Algebra	3
MATH 17351	College Geometry	3
MATH 17497	Connections to Teaching Mathematics	1
MATH 17495	Seminar in Mathematics	2

Note: If MATH 17120 is also used to fulfill a Northwest Core Requirement, the hours may be counted only once toward the 124 required for graduation.

CSIS 44149 has a Northwest Core Requirement for Digital Literacy as a prerequisite.

One course chosen from:

MATH 17215	Discrete Mathematics	3
MATH 17319	Graph Theory	3

One course in Algebra chosen from:

MATH 17415	Modern Algebra-Rings	3
MATH 17416	Modern Algebra-Groups	3

One course in Analysis chosen from:

MATH 17421	Introduction to Analysis	3
MATH 17520	Applied Analysis	3

In addition to the 36 hours, MATH 17580 Methods in Secondary School Mathematics must be completed as a degree requirement. This minor meets minimum Missouri Certification standards for grades 9-12 when added to an existing secondary education major certification program. Students should obtain a minor advisor early in the program.

Total Credit Hours: 36

Military Science Department / 42

Faculty Liaison to Military Science: Dr. Mark Corson

Northwest hosts two different military science programs, both of which lead to commissions in a component of the US Army. The Missouri Army National Guard Show Me GOLD (Guard Officer Leadership Development) Program is a pre-Officer Candidate School preparation program. The Army Reserve Officer Training Corps program is a traditional officer commissioning program. Students in both programs may use their Military Science Credits to pursue a Military Science academic minor. GOLD Program students are officer candidates. ROTC students are cadets.

Army National Guard GOLD Program

Northwest offers the Guard Officer Leadership Development Program on the Maryville campus. The Show Me GOLD Program is an officer candidate school preparation program resulting in a commission as a second lieutenant in the Army National Guard. Students enlist in the Army National Guard and attend basic and advanced individual training. They are then attached to the Northwest GOLD Detachment where they take military science courses on the Maryville Campus from Army National Guard instructors. Between their junior and senior year, student officer candidates then attend the accelerated National Guard Officer Candidate School where upon completion they are commissioned as second lieutenants in the Army Guard. The students then return to Northwest to complete their degrees. While completing their degrees, the GOLD Lieutenants fulfill their military duties working with the GOLD Program. GOLD Program students may apply their military science coursework toward a minor in Military Science.

GOLD Financial Assistance

The Missouri National Guard pays GOLD officer candidates monthly pay equivalent to monthly drill pay based on the candidate's military pay grade. The Missouri National Guard also has substantial financial assistance for all Guardsmen in the form of the GI Bill and tuition assistance programs.

GOLD Requirements

GOLD officer candidates are already qualified National Guard Soldiers. The GOLD officer instructor determines the required military science courses for each candidate necessary to prepare them for Officer Candidate School. GOLD officer candidates desiring a minor in Military Science must complete the course requirements for the minor listed later in this section.

Army Reserve Officer Training Corps Program

Northwest offers the Army Reserve Officers Training Corps (ROTC) off campus at Missouri Western State University and the University of Missouri-Kansas City.

Army ROTC provides an opportunity for qualified college students to pursue a commission in the United States Army while attending college as a full-time student. The program also provides the general student body the opportunity to attend leadership and confidence building classes without incurring a military obligation. A commission as a Second Lieutenant in the U.S. Army, Army Reserve or National Guard is awarded to individuals who have successfully completed the ROTC program and obtain a baccalaureate degree from Northwest Missouri State University.

Northwest Missouri State University partners with Missouri Western State University to provide the Reserve Officers Training Corps (ROTC) program to Northwest Missouri State University students. Other partnership schools include Rockhurst University, University of Missouri-Kansas City, Benedictine College, Park College and Avila College. These combined schools constitute the Pony Express ROTC Battalion.

Program Descriptions

Four-year ROTC Program

This program consists of 26 credit hours of Military Science offered on campus: six credit hours from the basic ROTC program MILS 100- and 200-level courses, and 20 credit hours from the advanced ROTC program MILS 300- and 400-level courses. First-time sophomores who did not take Military Science during the freshman year may compress the basic program during their sophomore year by taking a 100- and a 200-level course (for 3 credit hours total) for two trimesters.

Two-year ROTC Program

This program option is designed for junior- and senior-level students who were unable to enroll in ROTC during their first two academic years. As a prerequisite, the two-year program substitutes a paid five-week leadership internship at Fort Knox, KY, for the MILS 100- and 200-level courses. This Basic Course Qualification is designed for students with no prior military training. Students must attend in the summer between their sophomore and junior years to qualify for the program.

Financial Assistance

Financial assistance is available through the U.S. Army Scholarship Program. Two- and three-year scholarships are awarded each year to selected students who are enrolled or will enroll in the Army ROTC program. The scholarships provide payment directly to the college for applicable tuition and fees. Each student receives a textbook allowance of \$1,200 annually paid in two increments of \$600. In addition, a tiered monthly tax-free stipend is paid directly to the student for the duration of the scholarship, not to exceed 10 months for each year of the scholarship. These scholarships are available for both undergraduate and graduate students. Non-scholarship contracted cadets in the advanced course also receive the tiered monthly tax-free stipend, not to exceed 10 months per year for two years. Students are furnished free textbooks for military science classes.

The Simultaneous Membership Program (SMP) allows students to be a member of a National Guard or Reserve unit while enrolled in ROTC. Advanced course SMP students receive E5 pay, plus the tiered monthly tax-free stipend from ROTC, tuition assistance, and any Active Duty GI Bill entitlement.

The tiered stipend pay is: first year contracted cadets MSI, \$300; second year MSII, \$350; third year MSIII, \$450; and 4th year MSIV, \$500; per month not to exceed 10 months of the year.

Commission Requirements

This program requires all students seeking a commission to attend a paid four-week advanced training camp, normally the summer between the junior and senior years, at Fort Knox, KY. Attendance at camp may be deferred until after the senior year for exceptional cases with the recommendation of the chairperson of Military Science and approval from the ROTC chain of command.

Military Science Advanced Standing Requirements

Qualified students seeking a commission in the U.S. Army may apply for advanced standing in the Military Science Department. Students who have completed the basic courses (MILS 42-100- and 200-level) are eligible to apply along with prior active duty service members, Army Reserve and National Guardsmen who have completed basic training. Eligible students must receive permission from the chairperson of Military Science to enter the advanced courses prior to enrolling in the advanced courses.

Requirements

To be granted advanced standing placement into the advanced ROTC program (last two years of military science), a student must have consent of the department chairperson, a minimum cumulative GPA of 2.00, be a citizen of the United States and have completed one of the following requirements:

1. Completed 100- and 200-level military science courses.**2. Prior military active duty personnel, Army Reservists and National Guardsmen who have completed basic training.****3. Four-year high school Junior ROTC graduate.****4. Written and oral communication skills (one from each category)**

	Written Communication Skills (Required)	
ENGL 10112	Composition II: Writing as Engagement	3
ENGL 10115	Accelerated Composition	3
ENGL 10311	Advanced Composition	3
ENGL 10315	Writing for the Professions	3
	Oral Communication Skills (Required)	
COM 29102	Fundamentals of Oral Communication	3

Military Science Basic Courses, 14 hours**Requirements****Courses**

MILS 42102	Leadership Practicum	2
MILS 42112	Leadership Practicum	2
MILS 42116	Foundations of Officership	1
MILS 42126	Basic Leadership	1
MILS 42202	Leadership Practicum	2
MILS 42212	Leadership Practicum	2
MILS 42216	Individual Leadership Studies	2
MILS 42226	Leadership and Teamwork	2

Total Credit Hours: 14**Military Science Minor, 23 hours****CIP: 290101**

Qualified students accepted into the advanced classes of the ROTC program are eligible for this minor when declared at the time of entry into the advanced ROTC program.

Requirements**Required Courses**

MILS 42300	Leadership and Management I	3
MILS 42302	Leadership Practicum	2
MILS 42310	Small Unit Leadership and Tactics	3
MILS 42312	Leadership Practicum	2
MILS 42400	Leadership and Management II	3
MILS 42402	Leadership Practicum	2
MILS 42410	Army Management and Organizational Systems	3
MILS 42412	Leadership Practicum	2
HIST 33350	American Military History	3

Subtotal: 23**Courses Recommended to Enhance Military Leadership**

(Choose one from each group)

Human Behavior Studies

PSYC 08103	General Psychology	3
SOC 35101	General Sociology	3
PSYC 08365	Social Psychology	3
PHIL 39274	Historical Ethics	3

Management and Economics

MGMT 54313	Principles of Management	3
MGMT 54314	Human Resource Management	3

MGMT 54316	Organizational Behavior and Theory	3
ECON 52150	Principles of Macroeconomics	3

National Security Studies

POLS 34102	Introduction to American Government and Politics	3
POLS 34421	International Conflict Resolution	3
GEOG 32521	Political Geography	3
GEOG 32101	Introduction to Geography	3
GEOG 32102	People and Cultures of the World	3

Military Science General Information

Military Obligations: All students are eligible to take MILS 100- and 200-level courses without incurring any military obligation. However, MILS 300- and 400-level courses are reserved for students who have a signed contract with ROTC to become an officer upon graduation. Currently a college graduate who is commissioned through ROTC is placed on active or reserve duty depending on his or her desires and on the needs of the service at the time of graduation.

Course Credit: This curriculum does not lead to a degree by itself, but is intended to complement and be utilized in conjunction with the student's academic degree program. Credits earned in military science courses are applicable toward graduation requirements as general electives.

Class Location: With the exception of a five-week paid summer camp, most basic course instruction is presented on campus. Various field trips are conducted to further enrich students' leadership skills for advanced-course students.

Natural Sciences Department

Chairperson: Mark Corson

Faculty: Peter Adam, Michael Bellamy, Kelsey Bowlin, Jeffrey Bradley, Alisha Campbell, James Campbell, Himadri Chakraborty, Gregg Dieringer, Arghya Goswami, Kurt Haberyan, Rafiq Islam, Rex McAliley, Jay McGhee, Ahmed Malkawi, Mohammed Meziani, Lorita Mihindikulasooriya, John Pope, David Richardson, Shelley Riley, Karen Schaffer, John Shaw, Rená Smith, Kathleen Spears, Lisa Stobbe, Gretchen Thornsberry, Jeffry Thornsberry, Richard Toomey, Patricia Warner

Statement of Mission

Northwest Missouri State University focuses on student success—every student every day.

Degree Programs

The Department of Natural Sciences offers a wide range of programs leading to Bachelor of Arts and Bachelor of Science degrees in the areas of biology, biochemistry, biology/psychology, chemistry, A.C.S. accredited chemistry, clinical laboratory sciences, earth science, ecology, environmental geology, environmental science, geology, marine biology, medicinal chemistry, nanoscale biology, nanoscale chemistry, nanoscale physics, radiologic sciences, and wildlife ecology and conservation. Tracks in biology include general biology, cellular/molecular, and biomedical sciences.

The Department also offers Bachelor of Science in Education degrees in the areas of biology, chemistry, unified science: biology, unified science: chemistry, and unified science: earth science.

In addition to the various degree programs, the Department of Natural Sciences provides guidance, information, and preparatory coursework on many career path areas including dental hygiene, dentistry, engineering, medicine, occupational therapy, optometry, physical therapy, pharmacy, physician's assistant, respiratory therapy and veterinary medicine.

Advanced Standing Requirement

A student qualifies for advanced standing as a biology major after the completion of 45 semester hours. In addition, all Biology majors and minors must complete the following classes with a grade of “C” or better: BIOL 04112/BIOL 04113 General Botany and Laboratory and BIOL 04114/BIOL 04115 General Zoology and Laboratory. All Biology majors and minors must also earn a grade of “C” or better in all biology course prerequisites prior to moving to a higher level course.

A student can receive advanced standing for the Bachelor of Science degree in Chemistry and A.C.S. accredited Bachelor of Science degree in Chemistry when he/she has earned a grade of “C” or better in MATH 17120, CHEM 24114/CHEM 24115 and CHEM 24116/CHEM 24117. Requirements to achieve advanced standing for the Bachelor of Arts degree are a grade of “C” or better in MATH 17118, CHEM 24114/CHEM 24115 and CHEM 24116/CHEM 24117. All chemistry courses that are prerequisites to other chemistry courses must be passed with a grade of “C” or higher before a more advanced course may be taken. It is recommended that students take sequential courses in adjacent trimesters.

All geology courses that are prerequisites to other geology courses must be passed with a grade of “C” or higher before a more advanced course may be taken.

Department Policies

Students enrolled in biology and chemistry laboratory courses are expected to sign a safety contract, purchase dissecting kits, laboratory coats, gloves, and eye protection devices. In addition, students may be expected to purchase laboratory manuals and/or field guides to supplement the textbook.

Problem courses (BIOL 04429, BIOL 04439, BIOL 04479, BIOL 04489) supplement regular course offerings. They may consist of acquisition of information from library sources, the actual pursuit of a research project, special courses on demand, or similar activities. The student is expected to work independently, but under the supervision of an instructor familiar with the area being studied. It is imperative that the student obtain written consent from the intended instructor prior to enrolling in the course. Written reports are due upon completion of the project and oral reports may be required. Credit is variable (1-3 hours) with a minimum of three to five hours per week expected for each credit hour, depending on the nature of the problem. A maximum of three hours is allowed to be applied toward a biology major or minor, but additional hours may be counted as general electives.

Current topics courses (BIOL 04210, BIOL 04510) may be repeated for additional experience, new material and progression of study. A maximum of eight credit hours is allowed to be applied toward a biology major or minor, but additional hours may be counted as general electives.

Special courses in marine science (marine botany, marine zoology, marine invertebrate zoology, estuarine and marsh ecology, marine mammals, marine ornithology, marine microbiology, marine vertebrate zoology and ichthyology, physical marine geology, chemical marine geology and marine chemistry) are available during the summer at the Gulf Coast Research Laboratory, Ocean Springs, Mississippi. Contact the Marine Biology advisor, Department of Natural Sciences, for information and arrangements before February 1, as applications are required due to limited enrollment.

All students desiring a biology degree must complete a minimum of 15 hours of biology coursework (BIOL 04-xxx) from the Natural Sciences Department.

All biology graduating seniors (majors only) are required to take the ACAT subject matter test and provide the department with test results prior to graduation approval. ACAT exams are offered as part of BIOL 04491, Biological Science Seminar. All secondary education majors are also required to take the exit content exam in their endorsement areas for state certification.

Preparation for Medical, Dental, and Veterinary Programs

The Department of Natural Sciences at Northwest Missouri State University provides students with a number of different ways of preparing themselves for admission to professional programs in medicine (both M.D. and D.O.), dentistry, and veterinary medicine. Students are encouraged to speak with faculty advisors in order to identify the best path for them to achieve their goal.

Students interested in attending a medical program should be aware of prerequisites for admission to their intended school. These include minimum coursework in biology, chemistry, physics and classes in our general education curriculum. In addition to these minimum requirements, students should select a major that provides them with enough additional coursework to give them the best possible chance of scoring well on the Medical College Admission Test (MCAT). This would include coursework in genetics, microbiology, physiology, anatomy, psychology, and sociology. For this reason, a number of different majors will successfully prepare students to go on to medical school. These include majors such as Comprehensive B.S. in Biology: Biomedical Track, Comprehensive B.S. in Biology: Cell/Molecular Track, B.S. in Chemistry: Biochemistry Emphasis, and B.S. in Chemistry: Medicinal Chemistry Emphasis.

Students interested in attending a dental program will find that entrance requirements are very similar to the entrance requirements for medical school. For this reason, majors such as Comprehensive B.S. in Biology: Biomedical Track, Comprehensive B.S. in Biology: General Biology Track, and B.S. in Chemistry: Medicinal Chemistry Emphasis would be appropriate selections.

Students planning on applying to programs in veterinary medicine would be wise to select a major such as Comprehensive B.S. in Biology: Biomedical Track or the Animal Science (Pre-Veterinary Option) offered through the Department of Agriculture. Both of these major programs should provide students with the necessary prerequisites for admission. Students

that take the Biology path are encouraged to complete additional elective coursework in Animal Science to supplement their educational background.

In addition to coursework, students intending to apply to medical school, dental school or veterinary school will need to gain additional experience shadowing, observing, and working in the work environment or their chosen field. This experience should be gained throughout the student's undergraduate career.

Test-Out Policy

Undergraduate students may test out of certain lower division courses in chemistry and physics. Examinations are only available during the first week of class.

Internship and Independent Study

Geology students may apply for no more than six credit hours of combined internship and independent study hours toward their major requirements.

Biology / 04

Clinical Laboratory Sciences, 77-78 hours: B.S.—No Minor Required In conjunction with approved hospitals and medical centers.

CIP: 511005

The curriculum leading to the Bachelor of Science in Clinical Laboratory Sciences degree emphasizes biology and chemistry. Minimum academic prerequisites are established by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and are taken on the Northwest campus during the first three years along with other courses required by the University. The fourth year (senior year) is a structured educational program in an affiliated clinical laboratory. The clinical program is accredited through NAACLS. Upon satisfactory completion of the clinical program, a minimum of 30 hours of credit are granted and the student is awarded a B.S. in Clinical Laboratory Sciences degree. Acceptance into an affiliated program is competitive and will be determined by the quality of academic work completed by the student during the first three years of study. Admission to the clinical program is decided entirely by the hospitals. **Acceptance into the University program does not guarantee acceptance of the student by an affiliated clinical program.**

Students who already have a bachelor's degree and who wish to enter the field may do so by applying directly to the hospital that has an approved program. Applicants who have completed minimum requirements seven or more years before application must update microbiology and biochemistry. If a B.S. in Clinical Laboratory Sciences degree is desired, then University requirements for the degree must also be filled.

Complete application deadlines vary with the various clinical programs. Programs should be contacted during the spring trimester prior to the year you want to start. As an example, application deadlines can vary from July 1 to October 15. Applications are processed through the program director/education coordinator of the clinical program.

Selection is done by each clinical program. Criteria include state of health, academic performance, and personal characteristics. Usually, a 2.5 minimum grade point average is required.

Enrollment is limited by the class size of each clinical program. Costs vary with each clinical program. Upon graduation, students are eligible to take a national certification examination. Passing the examination is not a condition for receiving the B.S. in Clinical Laboratory Sciences degree. Financial assistance varies with each clinical program. The student should contact each program and the Northwest Office of Scholarships and Financial Assistance.

General Requirements

Requirements

See The Northwest Core Requirements (p. 65)

The Northwest Core	48 to 52
Science and Math	47 to 48
Clinical Laboratory Sciences Courses at Approved Teaching Hospital	30

Some clinical programs do have early acceptance policies, and one can usually apply to these programs during the sophomore year. Early acceptance will guarantee the student a position after all preclinical coursework is completed provided all other criteria are satisfied.

Degree Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Collateral Courses

CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1

Required Courses

BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4
	OR	
BIOL 04440	Molecular Biology	4
	OR	
MATH 17114	General Statistics	3
BIOL 04350	Genetics	4
BIOL 04438	Human Physiology	4
BIOL 04444	Immunology	5

Subtotal: 28-29

Clinical Laboratory Sciences (30)

In conjunction with approved hospitals and medical centers.

Total Credit Hours: 124

Hospitals and officials in association with the Clinical Laboratory Sciences degree:

Des Moines, Iowa

Mercy College of Health Sciences Clinical Laboratory Science Program
Kyla Dippold, MS, MLS (ASCP), Program Chair and Assistant Professor

Kansas City, Mo.

St. Luke's Hospital of Kansas City—Clinical Laboratory Science Program
Jane Rachel, MA, MT (ASCP), Program Director

North Kansas City, Mo.

North Kansas City Memorial Hospital—School of Clinical Laboratory Science
Marisa K. James, MA, MT (ASCP), Program Director

Radiologic Sciences Completion Degree Program, 81 hours: B.S.—No Minor Required

CIP: 510911

Acceptance into an affiliated clinical program is competitive and will be determined by the quality of academic work completed by the student during the first two years of study. Admission to the clinical portion of the program is decided entirely by the affiliated medical center. **Acceptance into the University does not guarantee acceptance of the student by an affiliated clinical program.**

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory OR	1
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHIL 39276	Bio-Medical Ethics	3
SOC 35101	General Sociology	3

Required Courses (19)

BIOL 04104	Medical Terminology	3
BIOL 04140	General Microbiology	4
BIOL 04236	Anatomy Allied Health	4
BIOL 04238	Physiology Allied Health	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Radiologic Sciences (62)

These courses are taught by the affiliated hospitals' schools of radiologic technology.

RAD 49301	Radiographic Anatomy and Physiology I	2
RAD 49302	Clinical Education I	1
RAD 49303	Medical Imaging I	2
RAD 49304	Radiographic Positioning and Procedures I	2
RAD 49305	Radiographic Positioning and Procedures I Laboratory	1
RAD 49306	Clinical Education II	2
RAD 49307	Introduction to Radiologic Science	2
RAD 49308	Literature Review	1
RAD 49309	Radiographic Physics	2
RAD 49310	Radiographic Positioning and Procedures II	2
RAD 49311	Radiographic Positioning and Procedures II Laboratory	1

RAD 49312	Radiographic Anatomy and Physiology II	2
RAD 49313	Clinical Education III	2
RAD 49314	Image Evaluation	1
RAD 49315	Medical Imaging II	2
RAD 49316	Radiographic Physics II	2
RAD 49317	Radiographic Anatomy and Physiology III	2
RAD 49318	Radiographic Positioning and Procedures III	2
RAD 49319	Radiographic Positioning and Procedures III Laboratory	1
RAD 49401	Clinical Education IV	4
RAD 49402	Clinical Education V	2
RAD 49403	Medical Imaging III	2
RAD 49404	Pathology I	2
RAD 49405	Radiology Biology and Radiation Protection	2
RAD 49406	Radiographic Positioning and Procedures IV	2
RAD 49407	Radiographic Anatomy and Physiology IV	2
RAD 49408	Clinical Education VI	2
RAD 49409	Corectec	2
RAD 49410	Imaging Modalities	2
RAD 49411	Pathology II	2
RAD 49412	Quality Assurance	2
RAD 49413	Radiography Curriculum Review	2
RAD 49414	Cross Sectional Anatomy	2

Total Credit Hours: 129

Biology Major, 50-51 hours: B.S.—Minor Required
CIP: 260101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
MATH 17117	Precalculus	4
	OR	
MATH 17118	College Algebra	3
	OR	
MATH 17120	Calculus I	4

Required Collateral Courses

PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
	OR	
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
MATH 17114	General Statistics	3

Required Courses

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04310	Cell Biology	4
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04376	Basic Ecology	4
BIOL 04491	Biological Science Seminar	1

Subtotal: 23**Electives (7)**

Advisor-approved, upper-level electives 7

Minor Requirements and Free Electives (25-26)**Biology Comprehensive Major, 64-65 hours: B.S.—No Minor Required
CIP: 260101****Requirements****The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
MATH 17117	Precalculus OR	4
MATH 17118	College Algebra OR	3
MATH 17120	Calculus I	4

Required Collateral Courses

MATH 17114	General Statistics	3
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1

Required Core Courses

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04238	Physiology Allied Health OR	4
BIOL 04330	Animal Anatomy and Physiology OR	4
BIOL 04430	Plant Physiology OR	4
BIOL 04438	Human Physiology	4
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04376	Basic Ecology	4

BIOL 04491	Biological Science Seminar	1
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Free Electives (11-12)**Choose one Track (see requirements below)**

General Biology Track (24 hours)
 Cell/Molecular Biology Track (24-25 hours)
 Biomedical Sciences Track (24-25 hours)

General Biology Track

At least one course must be taken from each block to total at least 24 hours.

Choose 1-2 courses

BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4

Choose 1-3 courses

BIOL 04430	Plant Physiology	4
BIOL 04438	Human Physiology	4
BIOL 04440	Molecular Biology	4
BIOL 04444	Immunology	5
BIOL 04511	Techniques in Biotechnology	4
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
CHEM 24562	General Biochemistry	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Choose 1-3 courses

BIOL 04104	Medical Terminology	3
BIOL 04312	Invertebrate Zoology	4
BIOL 04330	Animal Anatomy and Physiology	4
BIOL 04362	Mammalogy	4
BIOL 04364	Ornithology	4
BIOL 04412	Plant Anatomy and Morphology	4
BIOL 04418	Vertebrate Histology	5
BIOL 04436	Human Anatomy	4
BIOL 04460	Herpetology	4

Choose 1-3 courses

AGRI 03382	Woody Landscape Plants	3
BIOL 04261	Local Flora	2
BIOL 04351	Marine Science I: Oceanography	3
BIOL 04353	Marine Science Laboratory I	2
BIOL 04352	Marine Science II: Marine Biology	3
BIOL 04354	Marine Science Laboratory II	2
BIOL 04366	Entomology	3
BIOL 04420	Environmental Issues	4
BIOL 04474	Wildlife Management and Conservation	2
BIOL 04435	Comparative Anatomy	5
BIOL 04576	Methods in Plant and Animal Ecology	3
GEOG 32365	Geographic Information Systems	3

Cell/Molecular Biology Track**Required Courses**

BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4
CHEM 24344	Organic Chemistry II	3

CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24562	General Biochemistry	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Choose one course

BIOL 04440	Molecular Biology	4
BIOL 04444	Immunology	5
BIOL 04511	Techniques in Biotechnology	4

Biomedical Sciences Track**Required Courses**

BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24562	General Biochemistry	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Choose one course

BIOL 04435	Comparative Anatomy	5
BIOL 04436	Human Anatomy	4

Total Credit Hours: 64-65

In order to be competitive, for admission to professional and graduate schools, as well as certain technical careers, students are strongly encouraged to complete additional elective coursework specific to their path. Please consult with your academic advisor.

Biology/Psychology Comprehensive Major, 70-77 hours: B.S.—No Minor Required

CIP: 422706

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
PSYC 08103	General Psychology	3
MATH 17114	General Statistics	3

Collateral Requirements (16-18)

MATH 17117	Precalculus OR	4
MATH 17118	College Algebra OR	3
MATH 17120	Calculus I	4
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory OR	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3

PHYS 25111	General Physics I Laboratory	1
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Collateral Electives (6-8)

(choose two)

CHEM 24344	Organic Chemistry II	3
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
	OR	
CHEM 24562	General Biochemistry	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Required Courses for Biology (17)

BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04238	Physiology Allied Health	4
	OR	
BIOL 04330	Animal Anatomy and Physiology	4
	OR	
BIOL 04438	Human Physiology	4
BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
BIOL 04491	Biological Science Seminar	1

BIOL 04491: Must take Biology ACAT in this course.

Biology Electives (7-10)

Choose two courses

BIOL 04104	Medical Terminology	3
BIOL 04140	General Microbiology	4
BIOL 04418	Vertebrate Histology	5
BIOL 04436	Human Anatomy	4
BIOL 04440	Molecular Biology	4
BIOL 04444	Immunology	5

Psychology Requirements (18)

PSYC 08223	Abnormal Psychology	3
PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08333	Developmental Psychology	3
PSYC 08334	Experimental Psychology	3
PSYC 08343	Biological Psychology	3
PSYC 08443	Advanced Biological Psychology	3

Psychology Electives (6)

Choose two courses from these or other approved courses

PSYC 08310	Cognitive Psychology	3
PSYC 08323	Child and Adolescent Psychopathology	3
PSYC 08335	Introduction to Case Management	3
PSYC 08344	Drugs, Brain, and Behavior	3
PSYC 08353	Psychology of Race and Gender	3
PSYC 08363	Psychology of Personality	3
PSYC 08370	Applied Behavior Analysis	3
PSYC 08383	Psychology of Aging	3
PSYC 08438	Principles of Counseling	3
PSYC 08365	Social Psychology	3

Total Credit Hours: 70-77

Biomedical Sciences Comprehensive Major –Chiropractic Track, 66 hours: B.S.—No Minor Required

CIP: 260101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17117	Precalculus	4
	OR	
MATH 17118	College Algebra	3
	OR	
MATH 17120	Calculus I	4
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1

Collateral Courses (22)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
MATH 17114	General Statistics	3

Required Courses (20)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04238	Physiology Allied Health	4
BIOL 04350	Genetics	4
BIOL 04436	Human Anatomy	4

Courses taken at approved chiropractic schools

Courses taken at chiropractic college with existing articulation agreement with Northwest.

	Biochemistry I and Laboratory	
BIOL 04140	General Microbiology	4
BIOL 04418	Vertebrate Histology	5
	Gross Anatomy I	6
	Neuroanatomy	5

Free Electives (10)

Total Credit Hours: 66

Data Sciences and Informatics Comprehensive Major-Molecular Biology Emphasis, 79 hours: B.S.—No Minor Required

CIP: 279999

Core Requirements for a Major in Data Sciences and Informatics

Required Courses

MATH 17120	Calculus I	4
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MATH 17215	Discrete Mathematics	3
MATH 17316	Linear Statistical Models I	3
MATH 17318	Linear Statistical Models II	3
MATH 17356	Data Mining with Applications to Business and Sciences	3
CSIS 44141	Computer Programming I	3
CSIS 44155	Introduction to Data Science and Data Mining	3
CSIS 44241	Computer Programming II	3
CSIS 44413	Visualization	3
CSIS 44317	Management Information Systems	3
CSIS 44460	Database Systems	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
PHIL 39275	Professional Ethics	3
ECON 52150	Principles of Macroeconomics	3

Note: If MATH 17120 is also used to fulfill a Northwest Core requirement, the hours may be counted only once toward the 124 required for graduation.

PHIL 39275 and ECON 52150 fulfill Northwest Core Requirements.

CSIS 44130 is a prerequisite for CSIS 44141 and fulfills a Northwest Core Requirement.

MATH 17114 is a prerequisite for CSIS 44155 and fulfills a Northwest Core Requirement.

Molecular Biology (33)

Required Courses

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
BIOL 04140	General Microbiology	4
	OR	
BIOL 04310	Cell Biology	4
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
BIOL 04350	Genetics	4
BIOL 04511	Techniques in Biotechnology	4
	OR	
BIOL 04440	Molecular Biology	4
BIOL 04463	Introduction to Bioinformatics	3

Note: BIOL 04106, BIOL 04107, CHEM 24114, and CHEM 24115 fulfill Northwest Core requirements.

Total Credit Hours: 79

Marine Biology Comprehensive Major, 69 hours: B.S.—No Minor Required

CIP: 261302

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
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BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
MATH 17117	Precalculus OR	4
MATH 17118	College Algebra OR	3
MATH 17120	Calculus I	4

Collateral Courses (24)

MATH 17114	General Statistics	3
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
GEOG 32365	Geographic Information Systems	3

Required Courses (41)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04140	General Microbiology	4
BIOL 04312	Invertebrate Zoology	4
BIOL 04330	Animal Anatomy and Physiology	4
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04351	Marine Science I: Oceanography	3
BIOL 04353	Marine Science Laboratory I	2
BIOL 04352	Marine Science II: Marine Biology	3
BIOL 04354	Marine Science Laboratory II	2
BIOL 04376	Basic Ecology	4
BIOL 04491	Biological Science Seminar	1

BIOL 04351 – BIOL 04354 are taught at the Gulf Coast Research Laboratory each summer.

Electives (4)

Advisor-approved, upper-level elective	4
Additional marine lab courses are recommended.	

Free Electives (7)**Total Credit Hours: 69**

NOTE: Although not required, students planning graduate study are encouraged to take MATH 17120 Calculus I and either GEOL 27114/GEOL 27115 General Earth Science and Laboratory or GEOL 27110/GEOL 27111 General Geology and Laboratory.

Wildlife Ecology and Conservation Comprehensive Major, 67-68 hours: B.S.—No Minor Required

CIP: 030601

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17117	Precalculus	4
	OR	
MATH 17118	College Algebra	3
	OR	
MATH 17120	Calculus I	4
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Collateral Courses (18)

AGRI 03382	Woody Landscape Plants	3
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
GEOG 32365	Geographic Information Systems	3
MATH 17114	General Statistics	3

Required Courses (49-50)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04140	General Microbiology	4
	OR	
BIOL 04310	Cell Biology	4
BIOL 04238	Physiology Allied Health	4
	OR	
BIOL 04330	Animal Anatomy and Physiology	4
	OR	
BIOL 04430	Plant Physiology	4
	OR	
BIOL 04438	Human Physiology	4
BIOL 04261	Local Flora	2
BIOL 04312	Invertebrate Zoology	4
	OR	
BIOL 04366	Entomology	3
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04362	Mammalogy	4
BIOL 04364	Ornithology	4
BIOL 04376	Basic Ecology	4
BIOL 04460	Herpetology	4
BIOL 04474	Wildlife Management and Conservation	2
BIOL 04491	Biological Science Seminar	1
BIOL 04576	Methods in Plant and Animal Ecology	3

Free Electives (8-9)

Total Credit Hours: 67-68

Although not required, students are strongly encouraged to take AGRI 03234 Fundamentals of Soil Science to supplement this program.

Wildlife Ecology and Conservation Comprehensive Major, 67-68 hours: B.A.—No Minor Required

CIP: 030601

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17117	Precalculus OR	4
MATH 17118	College Algebra OR	3
MATH 17120	Calculus I	4
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory OR	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Degree Requirement (9)

Modern Language	9
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Note: All 9 credit hours must be taken in a single language. May include 3 credit hours in The Northwest Core: Global Experiences.

Collateral Courses (18)

AGRI 03382	Woody Landscape Plants	3
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
GEOG 32365	Geographic Information Systems	3
MATH 17114	General Statistics	3

Required Courses (46-47)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04140	General Microbiology OR	4
BIOL 04310	Cell Biology	4
BIOL 04238	Physiology Allied Health OR	4
BIOL 04330	Animal Anatomy and Physiology OR	4
BIOL 04430	Plant Physiology OR	4
BIOL 04438	Human Physiology	4
BIOL 04261	Local Flora	2

BIOL 04312	Invertebrate Zoology	4
	OR	
BIOL 04366	Entomology	3
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04362	Mammalogy	4
BIOL 04364	Ornithology	4
BIOL 04376	Basic Ecology	4
BIOL 04460	Herpetology	4
BIOL 04474	Wildlife Management and Conservation	2
BIOL 04491	Biological Science Seminar	1

Liberal Arts Elective (3)

Cannot be used to fulfill any Northwest Core requirement. Choose three additional hours from English, Modern Languages, History, Political Science, or Social Science, with consent of advisor.

Total Credit Hours: 67-68

Although not required, students are strongly encouraged to take AGRI 03324 Fundamentals of Soil Science to supplement this program.

Biology Unified Science Major, 64-66 hours: B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area: Biology)

CIP: 131316

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

Collateral Courses (30-31)

MATH 17119	Trigonometry	2
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
	OR	
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
GEOL 27212	Historical Geology	4
SCED 28550	History of Science and Technology	3

Required Courses for Endorsement Area: Biology

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1

BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology OR	4
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory OR	1
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2
BIOL 04330	Animal Anatomy and Physiology	4
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04383	Biology Practicum	1
BIOL 04489	Problems in Biological Education	1 to 3
BIOL 04420	Environmental Issues	4
BIOL 04483	Advanced Biology Practicum	1
BIOL 04491	Biological Science Seminar	1

BIOL 04489: Only one credit hour is required, but may be taken for up to 3 hours credit.

Professional Education Requirements (30)

Including:

SCED 28580	Methods in Secondary School Science	3
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Total Credit Hours: 64-66

Although not required, the department recommends that students take the following courses:
CHEM 24135 Laboratory Safety and MATH 17114 General Statistics.

Biology Education Major, 55-57 hours: B.S.Ed., Secondary Program— No Minor Required (Certifies Grades 9-12)

CIP: 131322

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

Required Courses (55-57)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04330	Animal Anatomy and Physiology OR	4
BIOL 04430	Plant Physiology OR	4
BIOL 04438	Human Physiology	4
BIOL 04140	General Microbiology	4

BIOL 04310	Cell Biology	4
	OR	
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
	OR	
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2
BIOL 04348	Biological Evolution and Diversity	2
BIOL 04350	Genetics	4
BIOL 04383	Biology Practicum	1
BIOL 04489	Problems in Biological Education	1 to 3
BIOL 04420	Environmental Issues	4
	OR	
BIOL 04376	Basic Ecology	4
	OR	
GEOL 27360	Environmental Geology	4
BIOL 04483	Advanced Biology Practicum	1
BIOL 04491	Biological Science Seminar	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
SCED 28550	History of Science and Technology	3

Professional Education Requirements (30)

Including

SCED 28580 Methods in Secondary School Science 3
 Although not required, the department recommends that students take the following courses:
 CHEM 24135 Laboratory Safety and MATH 17114 General Statistics.

Total Credit Hours: 55-57

Biology Minor, 24 hours

CIP: 260101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses (14-16)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3

BIOL 04115	General Zoology Laboratory	1
BIOL 04350	Genetics	4
BIOL 04348	Biological Evolution and Diversity OR	2
BIOL 04376	Basic Ecology	4

Electives (8-10)

Approved biology electives to total 24 hours in the minor 8 to 10
 At least 4 elective hours should be numbered over 300.

Total Credit Hours: 24**Environmental Science Interdisciplinary Minor, 28 hours**

CIP: 030104

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

Electives

Choose at least five hours from the following:

GEOL 27340	Introduction to Hydrogeology	3
BIOL 04420	Environmental Issues	4
GEOL 27515	Environmental Regulations	2
GEOG 32501	Conservation of Natural Resources	3

Required Courses (20)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04376	Basic Ecology	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
GEOL 27360	Environmental Geology	4

Advisor-approved electives

Choose courses from the following to total 28 hours for the minor:

AGRI 03234	Fundamentals of Soil Science	4
BIOL 04140	General Microbiology	4
BIOL 04474	Wildlife Management and Conservation	2
BIOL 04576	Methods in Plant and Animal Ecology	3
GEOG 32361	Climatology	3
GEOL 27424	Geochemistry	3
GEOL 27530	Sedimentology	4
	Other courses as approved by advisor	

Internship, Undergraduate Research, Problems courses, and Special Investigations may also be taken as approved by the advisor.

Total Credit Hours: 28

No biology course in the Environmental Science Minor may also be counted toward any biology major. Therefore, biology majors who select this minor must replace all biology courses in the

minor with an equal number of hours in advisor-approved electives. At least eight of these replacement hours must be in geology, geography, chemistry and/or agriculture courses.

If combined with the B.A. in Geology, the student must add an additional 4-hour course to achieve the 56-hour combined minimum number of hours required for the major plus the minor.

No systematic electives may count for both a major in geology or geography and this minor.

Chemistry / 24

Chemistry Comprehensive Major, A.C.S. Accredited, 65-66 hours: B.S.—No Minor Required

CIP: 400501

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17120	Calculus I	4
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
	OR	
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1

Collateral Courses (16-17)

MATH 17114	General Statistics	3
MATH 17121	Calculus II	5
MATH 17321	Calculus III	4
	OR	
MATH 17311	Linear Algebra	3
	OR	
MATH 17361	Differential Equations	3
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1

Required Courses (49)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24135	Laboratory Safety	2
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24522	Instrumental Analysis	2
CHEM 24523	Instrumental Analysis Laboratory	2
CHEM 24532	Physical Chemistry I	3
CHEM 24533	Physical Chemistry I Laboratory	1
CHEM 24534	Physical Chemistry II	3
CHEM 24535	Physical Chemistry II Laboratory	1

CHEM 24552	Advanced Inorganic Chemistry	3
CHEM 24555	Inorganic Synthesis Laboratory	1
CHEM 24562	General Biochemistry	3
CHEM 24592	Chemistry Seminar	1
	Chemistry electives from courses numbered above 400	3

Free Electives (10-11)**Total Credit Hours: 65-66****Chemistry Major, 55-59 hours: B.S.—No Minor Required****CIP: 400501****Areas of Emphasis: General, Biochemistry, and Medicinal Chemistry**

This degree program is designed to give students the opportunity to study in chemistry with several areas of concentrations (emphasis) that allow students to tailor the major to their individual interests and specific academic needs. While the General emphasis provides students with a broader chemistry background, the Biochemistry emphasis will provide training for a future career and/or graduate level in training in biochemistry, cellular/molecular biology and biotechnology. The Medicinal Chemistry emphasis prepares students for a career in the pharmaceutical industry, regulatory government agency or graduate studies in Medicinal Chemistry/related discipline. This emphasis meets the requirements for pre-professional training in medicine, and may partially or completely fulfill pre-pharmacy requirements for Pharm D programs. The core courses are required of all students, and each emphasis area has additional specific requirements.

Core Courses for a Major in Chemistry**Courses**

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24592	Chemistry Seminar	1
Subtotal: 25		

Chemistry: General Emphasis, 55-56 hours**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
	OR	
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I	4
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1

Required Courses (55-56)

	Chemistry Core	25
CHEM 24135	Laboratory Safety	2
CHEM 24532	Physical Chemistry I	3
CHEM 24533	Physical Chemistry I Laboratory	1

CHEM 24534	Physical Chemistry II	3
CHEM 24535	Physical Chemistry II Laboratory	1
CHEM 24552	Advanced Inorganic Chemistry OR	3
CHEM 24522	Instrumental Analysis	2
CHEM 24523	Instrumental Analysis Laboratory	2
MATH 17114	General Statistics	3
MATH 17121	Calculus II	5
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
	Department approved electives chosen from physics, chemistry, mathematics, biology, or computer science	4

CSIS 44130 Computers and Information Technology is a prerequisite for programming courses in computer science.

Free Electives (20-21)

Chemistry: Biochemistry Emphasis, 56-57 hours

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I OR	4
MATH 17118	College Algebra	3
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory OR	1
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1

Required Courses (56-57)

	Chemistry Core	25
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2
CHEM 24450	Macromolecular Structure OR	4
CHEM 24520	Protein Chemistry	4
BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
BIOL 04440	Molecular Biology	4
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory OR	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
	Approved electives from chemistry or biology at or above 300-level	6

Free Electives (19-20)

Chemistry: Medicinal Chemistry Emphasis, 58-59 hours**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I	4
	OR	
MATH 17117	Precalculus	4
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1

Required Courses (58-59)

	Chemistry Core	25
CHEM 24562	General Biochemistry	3
CHEM 24436	Medicinal Chemistry I	3
CHEM 24438	Medicinal Chemistry II	3
BIOL 04140	General Microbiology	4
BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
	OR	
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1

CHEM 24436 and CHEM 24438 are online courses taken through University of Florida or other accredited institution.

Choose a minimum of two courses from the following (8):

BIOL 04438	Human Physiology	4
BIOL 04440	Molecular Biology	4
BIOL 04436	Human Anatomy	4
CHEM 24522	Instrumental Analysis	2
	AND	
CHEM 24523	Instrumental Analysis Laboratory	2
CHEM 24534	Physical Chemistry II	3
	AND	
CHEM 24535	Physical Chemistry II Laboratory	1
CHEM 24552	Advanced Inorganic Chemistry	3
	AND	
CHEM 24555	Inorganic Synthesis Laboratory	1

Note: BIOL 04114 General Zoology and BIOL 04115 General Zoology Laboratory are prerequisites for BIOL 04436 and BIOL 04438. Students applying to medical or pharmacy programs are encouraged to consult with their advisor and the school of interest to determine specific admission requirements and tailor their curriculum accordingly.

Free Electives (17-18)

Total Credit Hours: 55-59

Chemistry Major, 30 hours: B.A.—Minor Required

CIP: 400501

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
	OR	
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Required Courses (30)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24592	Chemistry Seminar	1
	Chemistry electives from courses numbered above 300	7

Minor Requirements and Free Electives (46)

Total Credit Hours: 30

Chemistry Unified Science Major, 65 hours: B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area: Chemistry)

CIP: 131316

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
MATH 17120	Calculus I	4

Required Collateral Courses (36)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04420	Environmental Issues	4
GEOL 27212	Historical Geology	4
MATH 17114	General Statistics	3
MATH 17121	Calculus II	5
PHYS 25120	Fundamentals of Classical Physics I	4

PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
SCED 28550	History of Science and Technology	3

Required Courses in Endorsement Area: Chemistry (29)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24135	Laboratory Safety	2
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24362	Elementary Biochemistry OR	3
CHEM 24562	General Biochemistry	3
CHEM 24534	Physical Chemistry II	3
CHEM 24592	Chemistry Seminar	1
CHEM 24370	Chemistry Practicum	1 to 3

Professional Education Requirements (30)

Including:

SCED 28580	Methods in Secondary School Science	3
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Total Credit Hours: 65**Chemistry Education Major, 54-55 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)**

CIP: 131323

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
MATH 17120	Calculus I	4

Collateral Courses (20)

BIOL 04420	Environmental Issues OR	4
BIOL 04376	Basic Ecology OR	4
GEOL 27360	Environmental Geology	4
MATH 17114	General Statistics	3
MATH 17121	Calculus II	5
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
SCED 28550	History of Science and Technology	3

Required Courses (34-35)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4

CHEM 24117	General Chemistry II Laboratory	1
CHEM 24135	Laboratory Safety	2
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24370	Chemistry Practicum	1 to 3
CHEM 24534	Physical Chemistry II	3
CHEM 24535	Physical Chemistry II Laboratory	1

CHEM 24362	Elementary Biochemistry	3
	OR	
CHEM 24562	General Biochemistry	3

CHEM 24592	Chemistry Seminar	1
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Choose from the following sets of chemistry electives:

CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
	OR	
CHEM 24532	Physical Chemistry I	3
CHEM 24533	Physical Chemistry I Laboratory	1

Professional Education Requirements (30)

Including:

SCED 28580	Methods in Secondary School Science	3
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Total Credit Hours: 54-55

Chemistry Minor, 24 hours

CIP: 400501

If the requirements for both the minor in Chemistry and the minor in Biochemistry have been met, the student must choose one of the minors.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17118	College Algebra	3
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Required Courses

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
	Chemistry electives from courses numbered above 300	5

CHEM 24114 and CHEM 24115 cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 24

Note: Students who are also obtaining degrees in the biology disciplines must take a sufficient number of chemistry courses numbered 300 or above as electives to insure that the requirement of 12 hours of unique coursework is met for this minor.

Biochemistry Minor, 28 hours

CIP: 260202

Students majoring in chemistry are not permitted to select this minor.

If the requirements for both the minor in Chemistry and the minor in Biochemistry have been met, the student must choose one of the minors.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17118	College Algebra	3
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
	OR	
AGRI 03130	Plant Science	4

Collateral Courses (4)

BIOL 04310	Cell Biology	4
	OR	
BIOL 04350	Genetics	4

Required Courses (24)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2

CHEM 24114 and CHEM 24115 cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 28

Note: Students who are also obtaining degrees in the biology disciplines must take a sufficient number of chemistry courses numbered 300 or above as electives to insure that the requirement of 12 hours of unique coursework is met for this minor.

Chemistry Education Minor, 41 hours: B.S.Ed. (Certifies 9-12)

CIP: 131323

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
MATH 17120	Calculus I	4

Collateral Courses (9)

PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
BIOL 04420	Environmental Issues OR	4
BIOL 04376	Basic Ecology OR	4
GEOL 27360	Environmental Geology	4

Required Courses (32)

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24534	Physical Chemistry II	3
CHEM 24535	Physical Chemistry II Laboratory	1
CHEM 24135	Laboratory Safety	2
CHEM 24370	Chemistry Practicum	1 to 3
CHEM 24362	Elementary Biochemistry OR	3
CHEM 24562	General Biochemistry	3
SCED 28550	History of Science and Technology	3

Professional Education Requirements

Including:

SCED 28580	Methods in Secondary School Science	3
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Total Credit Hours: 41*Note: Students must have selected a B.S.Ed. degree in order to add this minor.***Geology / 27****Geology Core Requirements****Requirements****Courses**

GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory OR	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
GEOL 27212	Historical Geology	4
GEOL 27220	Mineralogy	4
GEOL 27420	Petrology	4
GEOL 27498	Senior Seminar	1

Total Credit Hours: 17**Geology Major, 31 hours: B.A.—Minor Required**

CIP: 400601

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

	Geology Core	17
GEOL 27360	Environmental Geology	4
	Geology electives (No more than 2 field trips)	10

Minor Requirements and Free Electives (45)

Total Credit Hours: 31

Geology Comprehensive Major, 54-60 hours: B.S.—No Minor Required

(depending on area of concentration)

CIP: 400601

Areas of Concentration

General Geology (55-59 hours)

Environmental Geology (54 hours)

General Geology Concentration (55-60)

The Northwest Core (48-52 hours)

Must include the following:

MATH 17118	College Algebra	3
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1

Required Collateral Courses (14-17)

MATH 17119	Trigonometry	2
	OR	
	any calculus course	2

Chemistry:

One course with laboratory beyond the directed Northwest Core course; choose from:

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
	OR	
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1

Physics:

PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	AND	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
	OR	
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
	AND	
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1

Required Courses**Required Courses (35)**

	Geology Core	17
GEOL 27440	Stratigraphy	4
	OR	
GEOL 27530	Sedimentology	4
GEOL 27450	Structural Geology	4
GEOL 27540	Paleontology	4
	Geology Summer Field Camp (approved through institution)	6

Required Geology Electives (6-8)

Choose one course from each group.

Group I

GEOL 27423	Economic Geology	4
GEOL 27424	Geochemistry	3
GEOL 27510	Geomorphology	3
GEOL 27555	X-Ray Analysis	3
GEOL 27560	Optical Mineralogy	3

Group II

GEOG 32361	Climatology	3
GEOG 32363	Remote Sensing	3
GEOL 27335	Physical Oceanography	3
GEOL 27340	Introduction to Hydrogeology	3
GEOL 27360	Environmental Geology	4
GEOL 27515	Environmental Regulations	2

Free Electives (16-21)**Environmental Geology Concentration (54)****The Northwest Core (48-52 hours)**

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Collateral Courses (12)

(choose a combination to total 12 hours)

AGRI 03234	Fundamentals of Soil Science	4
BIOL 04420	Environmental Issues	4
CHEM 24242	Organic Chemistry	3

	AND	
CHEM 24243	Organic Chemistry Laboratory	1
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
GEOG 32221	Economic Geography	3
GEOG 32361	Climatology	3
GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32365	Geographic Information Systems	3
GEOG 32501	Conservation of Natural Resources	3
GEOG 32522	Urban Geography	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
GEOG 32565	Advanced Geographic Information Systems	3
GEOL 27515	Environmental Regulations	2
MATH 17114	General Statistics	3

Required Courses (27)

	Geology Core	17
GEOL 27340	Introduction to Hydrogeology	3
GEOL 27360	Environmental Geology	4
GEOL 27455	Geologic Field Methods	3
	OR	
	Field Camp in Geology, Hydrogeology, or Environmental Geology	3

Required Geology Electives (15)

Choose 15 hours from the following courses:

GEOL 27326	Geology of the Natural Parks	3
GEOL 27335	Physical Oceanography	3
GEOL 27423	Economic Geology	4
GEOL 27424	Geochemistry	3
GEOL 27440	Stratigraphy	4
GEOL 27450	Structural Geology	4
GEOL 27510	Geomorphology	3
GEOL 27530	Sedimentology	4
GEOL 27540	Paleontology	4
GEOL 27555	X-Ray Analysis	3
GEOL 27560	Optical Mineralogy	3

Free Electives (22)

Total Credit Hours: 54-60

Earth Science Unified Science Major, 58 hours: B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area: Earth Science)

CIP: 131316

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

MATH 17118	College Algebra	3
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Collateral Courses (26)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
MATH 17119	Trigonometry	2
PHSC 40122	Descriptive Astronomy	3
PHSC 40123	Descriptive Astronomy Laboratory	1
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
SCED 28550	History of Science and Technology	3

Required Courses in Endorsement Area: Earth Science (32)

GEOG 32360	Dynamic and Synoptic Meteorology	3
GEOG 27114	General Earth Science	3
GEOG 27115	General Earth Science Laboratory	1
GEOG 27212	Historical Geology	4
GEOG 27220	Mineralogy	4
GEOG 27305	Practicum in Teaching Laboratory	1
GEOG 27335	Physical Oceanography	3
GEOG 27360	Environmental Geology	4
GEOG 27420	Petrology	4
GEOG 27498	Senior Seminar	1
GEOG 27540	Paleontology	4

Professional Education Requirements (30)

Including:

SCED 28580	Methods in Secondary School Science	3
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Total Credit Hours: 58**Geology Minor, 25 hours**

CIP: 400601

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

GEOG 27110	General Geology	3
GEOG 27111	General Geology Laboratory	1
	OR	
GEOG 27114	General Earth Science	3
GEOG 27115	General Earth Science Laboratory	1
GEOG 27212	Historical Geology	4
GEOG 27220	Mineralogy	4

Required Geology Electives (13)

Must include one 400- or 500-level, 3-5 credit hour course from Geology offerings and no more than one field trip

Total Credit Hours: 25

Earth Science Education Minor, 22-23 hours

CIP: 131316

Requirements**Required Courses**

GEOG 32360	Dynamic and Synoptic Meteorology	3
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
GEOL 27212	Historical Geology	4
GEOL 27305	Practicum in Teaching Laboratory	1
GEOL 27335	Physical Oceanography	3
GEOL 27360	Environmental Geology	4
	OR	
GEOG 32501	Conservation of Natural Resources	3
PHSC 40122	Descriptive Astronomy	3
PHSC 40123	Descriptive Astronomy Laboratory	1

GEOL 27114, GEOL 27115: These courses count as a Northwest Core course as well as a course in the minor area.

Total Credit Hours: 22-23

NOTES: This minor may be paired with a major in Geography, but not a major in Geology. If paired with a major in Geography, courses listed in both the major and minor may not count toward both. This minor will not certify to teach unless taken on a B.S.Ed. degree, and unless all the required credits set forth by the Department of Secondary and Elementary Education have been met.

Students with a non-science education major will also be required to take SCED 28550 History of Science and Technology.

Environmental Science Interdisciplinary Minor, 28 hours

CIP: 030104

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1

Electives

Choose at least five hours from the following:

GEOL 27340	Introduction to Hydrogeology	3
BIOL 04420	Environmental Issues	4
GEOL 27515	Environmental Regulations	2
GEOG 32501	Conservation of Natural Resources	3

Required Courses (20)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04376	Basic Ecology	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

GEOL 27360	Environmental Geology	4
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Advisor-approved electives

Choose courses from the following to total 28 hours for the minor:

AGRI 03234	Fundamentals of Soil Science	4
BIOL 04140	General Microbiology	4
BIOL 04474	Wildlife Management and Conservation	2
BIOL 04576	Methods in Plant and Animal Ecology	3
GEOG 32361	Climatology	3
GEOL 27424	Geochemistry	3
GEOL 27530	Sedimentology	4
	Other courses as approved by advisor	

Internship, Undergraduate Research, Problems courses, and Special Investigations may also be taken as approved by the advisor.

Total Credit Hours: 28

No biology course in the Environmental Science Minor may also be counted toward any biology major. Therefore, biology majors who select this minor must replace all biology courses in the minor with an equal number of hours in advisor-approved electives. At least eight of these replacement hours must be in geology, geography, chemistry and/or agriculture courses.

If combined with the B.A. in Geology, the student must add an additional 4-hour course to achieve the 56-hour combined minimum number of hours required for the major plus the minor.

No systematic electives may count for both a major in geology or geography and this minor.

Physics / 25**Physics Minor, 25 hours**

CIP: 400801

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

MATH 17120	Calculus I	4
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Required Courses

PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
MATH 17121	Calculus II	5
	Physics electives from courses numbered above 300	10

Total Credit Hours: 25**Physics Education Minor, 28 hours: B.S.Ed. (Certifies Grades 9-12)**

CIP: 131329

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

MATH 17120	Calculus I	4
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Required Courses

PHYS 25120	Fundamentals of Classical Physics I	4
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PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
PHYS 25350	Introduction to Modern Physics	3
PHYS 25351	Introduction to Modern Physics Laboratory	1
MATH 17121	Calculus II	5
SCED 28550	History of Science and Technology	3
	Physics electives from courses numbered above 300	6

Professional Education Requirement

SCED 28580	Methods in Secondary School Science	3
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NOTE: Students with a nonscience education major will also be required to take SCED 28550 History of Science and Technology.

Total Credit Hours: 28

Nanoscale Science / 48 Degree Program

The main objectives of the courses in the nanoscience program are to provide interdisciplinary training in biology, chemistry, physics and mathematics needed for the highly technical fields related to nanotechnology. The curriculum is composed of a core sequence required for all participants in the program as well as three emphasis tracks that allow students to focus on specific areas of interest.

Nanoscience Comprehensive Major-Biology Emphasis, 65-66 hours: B.S.—No Minor Required

CIP: 300101

This is an interdisciplinary major in conjunction with the Department of Natural Sciences and the Department of Mathematics and Statistics. Three emphasis areas are available: Nanoscience Biology, Nanoscience Chemistry, and Nanoscience Physics.

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I	4
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHIL 39274	Historical Ethics	3

Required Core Courses (37-38)

BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2

PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory OR	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
MATH 17114	General Statistics	3
NANO 48314	Nanoscale Science I	4
NANO 48315	Nanoscale Science II	4

Nanoscale Biology Emphasis Required Courses (18)

BIOL 04440	Molecular Biology	4
BIOL 04511	Techniques in Biotechnology	4
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2

Nanoscale Biology Emphasis Elective Courses (10)

Choose 10 credit hours from the following courses:

BIOL 04140	General Microbiology	4
BIOL 04401	Research: Cellular Biology	1 to 3
BIOL 04444	Immunology	5
BIOL 04478	Readings in Molecular Biology	2
BIOL 04491	Biological Science Seminar	1
CHEM 24135	Laboratory Safety	2
CHEM 24450	Macromolecular Structure	4
CHEM 24520	Protein Chemistry	4

Free Electives (10-11)**Total Credit Hours: 65-66**

Note: Students with an emphasis in Nanoscale Biology may take either the General Physics or Classical Physics sequences. Students with an emphasis in Nanoscale Chemistry or Nanoscale Physics must take the Classical Physics sequence. Please see the Academic Catalog for the prerequisites for each sequence.

Nanoscience Comprehensive Major-Chemistry Emphasis, 67 hours: B.S.-No Minor Required

CIP: 300101

This is an interdisciplinary major in conjunction with the Department of Natural Sciences, and the Department of Mathematics and Statistics. Three emphasis areas are available: Nanoscience Biology, Nanoscience Chemistry, and Nanoscience Physics.

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I	4
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHIL 39274	Historical Ethics	3

Required Core Courses (38)

BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
MATH 17114	General Statistics	3
NANO 48314	Nanoscale Science I	4
NANO 48315	Nanoscale Science II	4

Nanoscale Chemistry Emphasis Required Courses (17)

MATH 17121	Calculus II	5
CHEM 24322	Analytical Chemistry	3
CHEM 24323	Analytical Chemistry Laboratory	2
CHEM 24532	Physical Chemistry I	3
CHEM 24552	Advanced Inorganic Chemistry	3
CHEM 24555	Inorganic Synthesis Laboratory	1

Nanoscale Chemistry Emphasis Electives (12)

Choose 12 credit hours from the following courses:

CHEM 24135	Laboratory Safety	2
CHEM 24344	Organic Chemistry II	3
CHEM 24345	Organic Chemistry II Laboratory	2
CHEM 24450	Macromolecular Structure	4
CHEM 24499	Special Investigations in Chemistry	1 to 3
CHEM 24520	Protein Chemistry	4
CHEM 24522	Instrumental Analysis	2
CHEM 24523	Instrumental Analysis Laboratory	2
CHEM 24533	Physical Chemistry I Laboratory	1
CHEM 24534	Physical Chemistry II	3
CHEM 24535	Physical Chemistry II Laboratory	1
CHEM 24562	General Biochemistry	3
CHEM 24563	General Biochemistry Laboratory	2
PHYS 25430	Optics	3
PHYS 25431	Optics Laboratory	1

Free Electives (9)

Total Credit Hours: 67

Nanoscience Comprehensive Major-Physics Emphasis, 67 hours: B.S.-No Minor Required

CIP: 300101

This is an interdisciplinary major in conjunction with the Department of Natural Sciences and the Department of Mathematics and Statistics. Three emphasis areas are available: Nanoscience Biology, Nanoscience Chemistry, and Nanoscience Physics.

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17120	Calculus I	4
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHIL 39274	Historical Ethics	3

Required Core Courses (38)

BIOL 04310	Cell Biology	4
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BIOL 04350	Genetics	4
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
MATH 17114	General Statistics	3
NANO 48314	Nanoscale Science I	4
NANO 48315	Nanoscale Science II	4

Nanoscale Physics Emphasis Required Courses (23)

CSIS 44141	Computer Programming I	3
MATH 17121	Calculus II	5
PHYS 25350	Introduction to Modern Physics	3
PHYS 25351	Introduction to Modern Physics Laboratory	1
PHYS 25352	Modern Physics II	3
PHYS 25430	Optics	3
PHYS 25431	Optics Laboratory	1
PHYS 25450	Computational Physics	3
PHYS 25451	Computational Physics Laboratory	1

Nanoscale Physics Emphasis Elective Courses (6)

Choose 6 hours from the following courses:

MATH 17321	Calculus III	4
MATH 17361	Differential Equations	3
CHEM 24135	Laboratory Safety	2
CHEM 24552	Advanced Inorganic Chemistry	3
CHEM 24555	Inorganic Synthesis Laboratory	1
PHYS 25479	Undergraduate Research	1 to 3

Free Electives (9)

Total Credit Hours: 67

Science Education / 28**Middle School Science Minor, 24-25 hours: B.S.Ed., Major in Middle School (Certifies Grades 5-9)****Requirements****The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1

Required Courses

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
GEOL 27114	General Earth Science	3
GEOL 27115	General Earth Science Laboratory	1
PHSC 40102	The Physical Sciences	3
PHSC 40103	Physical Science Laboratory	1
	OR	
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	

PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
PHSC 40122	Descriptive Astronomy	3
PHSC 40123	Descriptive Astronomy Laboratory	1
SCED 28550	History of Science and Technology	3
Select 4-5 hours from the following:		
BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
	OR	
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
PHSC 40102	The Physical Sciences	3
PHSC 40103	Physical Science Laboratory	1
	OR	
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	OR	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
GEOL 27212	Historical Geology	4
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
Select one from the following which should be based on selection above:		
BIOL 04383	Biology Practicum	1
CHEM 24370	Chemistry Practicum	1 to 3
GEOL 27305	Practicum in Teaching Laboratory	1
PHSC 40389	Practicum in Physical Science	1 to 2
SCED 28400	Special Offering	1 to 4
Professional Education Requirement		
SCED 28582	Methods in Middle School Science	3

Total Credit Hours: 24-25

Note: Selected Options cannot be used to fulfill any Northwest Core requirement.

The Honors Program / H

Associate Provost of the College of Arts and Sciences: Michael Steiner

Director of the Honors Program: Gregg Dieringer

Honors Faculty: Casey Abington, Joel Benson, Elizabeth Dimmitt, Rebecca Dunnell, Dawn Gilley, Brian Hesse, Bayo Joachim, Jeffrey Loomis, Kevin Romig, Brenda Ryan, Devlin Scofield, David Vlieger, and Nancy Zeliff

Statement of Mission

The Honors Program provides motivated and talented students with an enriched educational experience. Through limited class size and close interactions with faculty, the program provides talented students with a deeper understanding of content and an opportunity to develop critical thinking and discussion skills that prepare them for a dynamic world. In the Honors Program, a commitment to learning is combined with a spirit of inquiry and a critical understanding of the responsibilities of global citizenship. By bringing together the ideas from diverse traditions of knowledge, the Honors Program helps prepare creative and innovative leaders to meet emerging challenges in our global community.

The Honors Program Curriculum

Northwest Missouri State University's Northwest Core Requirements are outlined in this catalog (see The Northwest Core (p. 65)). The Honors Program requires a minimum of 21 credit hours in Honors sections of Northwest Core courses. Honors sections will be designated with an "H" in the course title as listed online and on the student transcript. By the 2014-2016 academic year, Honors sections existed for 13 different Northwest Core Requirements courses: Accelerated Composition, Fundamentals of Oral Communication, Statistics, Introduction to American Government, America: A Historical Survey, Introduction to Literature, Western Civilization I, Western Civilization II, Introduction to Philosophy, The Enjoyment of Music, Introduction to Geography, General Psychology, People and Cultures of the World, and Computers and Information Technology.

Honors Program Policies, Expectations and Requirements

The Honors Program is designed for motivated and capable students. During the first trimester, the Honors student typically enrolls in at least one Honors class. These classes are sections of existing courses enhanced for the Honors students. Class size limits for Honors sections provide ample opportunity for students to express themselves and interact more with professors and classmates:

Honors sections will typically involve:

- more extensive reading and/or more ambitious laboratory work
- in-depth conversation
- connections within and among disciplines
- relationship of course material to a diverse global society
- challenging educational experiences beyond the classroom
- opportunities for research and capstone experiences

Eligibility and Admission

- To be considered for entrance into the Honors program, a first-time/entering student must have a minimum ACT composite score of 26 and a minimum high school GPA of 3.50.

- Students will be selected from among eligible applicants.

Program Continuation Requirements

- Honors students must maintain a 3.50 Northwest cumulative grade point average to remain in the Honors Program. If a student falls below a 3.50 GPA after the first academic year, the student is placed on academic probation in the Honors Program. If after the following academic year, the student has not regained a 3.50 cumulative GPA, the student will be suspended from the Honors Program. The suspended student can apply for readmission to the program once their Northwest cumulative GPA is at or above 3.50.

Graduation Requirements

To graduate with honors, a student must:

- complete at least 21 hours in Honors sections of the required General Education courses or through honors credit agreements
- maintain a 3.50 cumulative GPA

Co-Curricular Activities

- Special colloquia, field trips, etc. are available for enrichment and limited to Honors students.
- Honors students have the privilege of an early preregistration for classes.

Honors Program

- Honors students have opportunities for special access to selected campus-wide events.
- Honors students participate in various activities such as research projects and service learning activities.
- Honors students receive special advisement by the director of the Honors Program and/or by Honors faculty.
- A special dinner is held for Honors graduates and their families.
- Students receive an Honors medal for graduation (transcript and diploma will carry the Honors designation).

School of Agricultural Sciences/ 03

Director: Rod Barr

Assistant Director: Arley Larson

Faculty: Jamison Allen, Nigel Hoilett, Rego Jones, Jacqueline Lacy, Callie Mullins, Kevin Royal, Rusty Shipley, Thomas Zweifel

Statement of Mission

The mission of the School of Agricultural Sciences is to serve the students and the agricultural industry by:

- Providing high-quality degree programs utilizing an interdisciplinary approach
- Enhancing the critical thinking and problem solving skills of students
- Utilizing usable and sustainable technologies to prepare students for the 21st century
- Integrating theory and application to provide high-quality services to the regional agricultural industry

Degree Programs

The courses in the School of Agricultural Sciences are chosen with the aim of preparing students to take their place in the many and varied occupations directly or indirectly related to agriculture. It is possible for students to select an area of emphasis in preparation for a particular career field, to prepare for advanced study, to prepare for farming or to enter the teaching field as a teacher of agricultural education.

Majors are currently offered in Agricultural Business, Agronomy, Animal Science, Animal Science (Pre-Veterinary Option), Horticulture, Agricultural Education and Agricultural Science. Students at Northwest can select agricultural minors in Animal Science, Agricultural Science, Agricultural Finance, Agricultural Business, Agronomy, Precision Agriculture, Agricultural Communications and Horticulture. Master's programs are offered leading to the following degrees: Master of Science in Education (Teaching Secondary Agricultural Education) and Master in Business Administration (MBA) with an area in Agricultural Economics.

All faculty members within the School of Agricultural Sciences have earned a Ph.D. or have significant professional experience, and strive for excellence in teaching, scholarly activity, service and student support. The School of Agricultural Sciences is a leader in applied research programs in marketing research and associated activities.

The School of Agricultural Sciences places special emphasis on creating a climate that is conducive to learning. The faculty possess a genuine concern for the students as well as a high commitment to the educational achievement of their students. The school's goal is to educate students to successfully meet the challenges of a career in agriculture, while instilling a desire and curiosity for lifelong learning.

The School of Agricultural Sciences offers an excellent course curriculum for each major, undergraduate research opportunities, internship programs, a wide range of professional and social student organizations and hands-on experiences in living laboratories to expand students' horizons beyond the classroom.

Agriculture Major Requirements

All agriculture students are required to take chemistry as part of their general requirements.

School Policies

Requirements for Independent Study and Problems Courses

The independent study and problems courses for each area of specialization permit the student to explore a specific topic in depth. The 400-level course may: (1) use either primary or secondary research data or (2) cover course material the student was unable to schedule prior to the senior year. The 500-level course may use only primary research data or special problems assigned by the instructor.

A student may take no more than three hours of 400-level and three hours of 500-level of these courses during the undergraduate program. The student may not take both a 400- and 500-level of these courses during the same trimester.

Credit by Examination

The following courses are available to students for credit by examination: AGRI 03102, AGRI 03150, AGRI 03312, AGRI 03320, AGRI 03440, AGRI 03566. If a student feels he/she can test out of any of these courses, the student should talk to the instructor and the school director.

Majors and Minors for Agriculture Students

Students majoring in agriculture are not permitted to minor in agricultural science or pursue a 2-year Farm Operations Certificate. Students seeking multiple majors in agriculture are not permitted to use agricultural science as one of the majors. Students pursuing a major in agricultural science may pursue only a minor in Agricultural Communication, Agricultural Finance or Precision Agriculture within the School of Agricultural Sciences. When an agriculture minor is chosen in lieu of the collateral field for a major, duplicate courses in the minor must have replacement coursework assigned by the advisor.

Transfer Credit

For Bachelor of Science degree students, only those junior/community college agriculture courses that are covered by a current articulation agreement may be counted towards programs in the School of Agricultural Sciences. Up to six credits of employment experience, on-the-job training, or internships can be substituted for Northwest's AGRI 03498 Agriculture Occupations Internship.

For Bachelor of Technology degree students completing a one- or two-year program at a junior/community college and who transfer to Northwest for a B.T. degree, most credits will transfer, either as substitutes for equivalent courses or as electives. The Bachelor of Technology degree requires a minimum of 24 semester hours in Ag courses numbered above 300. A minimum of 30 semester hours must be completed in residence; with the last 10 hours of academic work completed at Northwest. A minimum of 124 earned academic hours and a minimum overall and Northwest grade point average of 2.0 are required to qualify for the degree. (See Bachelor of Technology degree requirements.)

Students selecting a major/emphasis in agriculture from Northwest Missouri State University must complete a minimum of 24 credit hours in agriculture from Northwest's School of Agricultural Sciences.

Agricultural Business Major, 37 hours: B.S.–Collateral Field Required

CIP: 010102

This program prepares the student to work in agriculturally-related industries. Students receive a solid background in business management principles as well as technical agriculture. It prepares the student for management positions in the areas of marketing, grain merchandising, insurance and banking sectors.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17118	College Algebra	3
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory OR	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03296	Seminar	1
AGRI 03302	Agricultural Marketing OR	3
MKTG 55330	Principles of Marketing	3
AGRI 03304	Farm Management and Record Analysis	3
AGRI 03309	Applied Futures Marketing	3
AGRI 03407	Agricultural Finance OR	3
FIN 53324	Fundamentals of Business Finance	3
AGRI 03503	Agricultural Law Advisor-approved electives in agriculture or business	3 10

Subtotal: 37

AGRI 03102: Cannot be used to fulfill any Northwest Core requirement.

Collateral Field Courses

MATH 17114	General Statistics	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MKTG 55430	Sales and Sales Management	3

Subtotal: 21

MATH 17114: Cannot be used to fulfill any Northwest Core requirement.

NOTE: Grade Requirement: Students may have no more than seven hours of “D” in courses required by this major.

Total Credit Hours: 58

Agricultural Education Comprehensive Major, 59 hours: B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12)

CIP: 131301

The Major in Agricultural Education is designed to prepare teachers of agriculture for the secondary and adult levels in compliance with state certification requirements.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03112	Agricultural Mechanics	4
AGRI 03130	Plant Science	4
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03296	Seminar	1
AGRI 03304	Farm Management and Record Analysis	3

AGRI 03102, AGRI 03130: Can be used to fulfill Northwest Core requirements.

Student must take two of the following:

AGRI 03232	Crop Production	3
AGRI 03385	Greenhouse Crop Production	3
	Horticulture elective	3

Advisor-approved electives in agriculture (16)

Required Courses in Agricultural Education

AGRI 03320	Foundations of Agricultural Education	3
AGRI 03420	Program Planning in Agricultural Education	3
AGRI 03421	Conducting Supervised Agriculture Experience Programs	2
AGRI 03422	Adult Education in Agriculture	2
AGRI 03524	Teaching Agricultural Science Laboratories	2
AGRI 03580	Methods in Teaching Agriculture	2

Total Credit Hours: 59

Agricultural Science Comprehensive Major, 55 hours: B.S.—No Minor Required

CIP: 010000

Agricultural science prepares students for a wide variety of positions in agriculture and agriculturally-related occupations, as well as farm operations.

In addition to the courses listed below, a program to total 55 hours of agriculture courses is designed by the student and an advisor to meet the needs of each student.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
MATH 17118	College Algebra	3

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03130	Plant Science	4
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4

AGRI 03296	Seminar	1
	Advisor-approved electives in agriculture	39

Students selecting a Comprehensive Major in Agricultural Science must complete a minimum of 9 credit hours in at least three of the agricultural areas: agricultural economics, agricultural mechanization, agricultural education, agronomy, animal science and horticulture. Each course may be counted in only one major area.

AGRI 03102, AGRI 03130: Cannot be used to fulfill any Northwest Core requirement.

NOTE: Grade Requirement: Students may have no more than eight hours of “D” in courses required by this major.

Total Credit Hours: 55

Agronomy Major, 36 hours: B.S.—Minor Required OR Collateral Field CIP: 011102

The agronomy curriculum provides fundamental training in crop and soil science. Students choosing to major in agronomy will be prepared to serve in crop consulting, environmental protection, land management, soil conservation, seed, fertilizer, agricultural chemical sales and technical support or related areas.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

AGRI 03130	Plant Science	4
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
MATH 17118	College Algebra	3

Required Courses

AGRI 03232	Crop Production	3
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03296	Seminar	1
AGRI 03330	Forage Crop Science	3
AGRI 03336	Crop Physiology	3
AGRI 03381	Applied Entomology	3
AGRI 03432	Soil and Water Conservation	3
AGRI 03440	Introduction to Precision Agriculture	3
AGRI 03530	Soil Formation and Classification	3
	OR	
AGRI 03543	Soil Chemistry: Environmental Quality and Plant Nutrition	3
AGRI 03534	Plant Breeding	3
AGRI 03434	Weed Science: Ecology and Control	3
	OR	
AGRI 03582	Plant Diseases	3
AGRI 03536	Soil Fertility	3
	Advisor-approved electives in agriculture	1

Subtotal: 36

Collateral Field Courses

(if no minor is selected)

BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory OR	1
BIOL 04140	General Microbiology	4
BIOL 04350	Genetics OR	4
BIOL 04376	Basic Ecology	4
MATH 17114	General Statistics	3
GEOG 27360	Environmental Geology OR	4
GEOG 32365	Geographic Information Systems	3
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory OR	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
ENGL 10315	Writing for the Professions	3
		Subtotal: 21-23

BIOL 04112, MATH 17114: Cannot be used to fulfill any Northwest Core requirement.

NOTE: Grade Requirement: Students may have no more than seven hours of “D” in courses required by this major.

Animal Science Major, 38 hours: B.S.—Minor Required OR Collateral Field

CIP: 010901

Courses have been selected to prepare the student in the areas dealing with the fundamentals of livestock production, including selection, reproduction, physiology, nutrition, marketing and general management. In addition to the courses dealing with basic principles, a number of elective courses are offered which give the student the opportunity to choose courses more closely related to his or her special interests.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory OR	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
MATH 17118	College Algebra	3

Required Courses

AGRI 03150	Animal Science	4
AGRI 03252	Livestock Evaluation	3
AGRI 03296	Seminar	1
AGRI 03309	Applied Futures Marketing OR	3
AGRI 03504	Futures Trading	3

AGRI 03352	Meat Science	3
AGRI 03358	Livestock Health and Disease Management	3
AGRI 03360	Principles of Animal Nutrition	3
AGRI 03362	Anatomy and Physiology of Domestic Animals	3
AGRI 03366	Principles of Animal Breeding	3
AGRI 03452	Beef Science	3
	OR	
AGRI 03470	Dairy Science	3
AGRI 03454	Swine Science	3
AGRI 03566	Genetics of Livestock Improvement	3

Take one of the following courses:

AGRI 03330	Forage Crop Science	3
AGRI 03365	Artificial Insemination	1 to 3
AGRI 03450	Small Ruminant Science	3
AGRI 03452	Beef Science	3
AGRI 03460	Advanced Animal Nutrition	3
AGRI 03470	Dairy Science	3

Subtotal: 38

AGRI 03452, AGRI 03470 cannot be used to fulfill the "take 1" requirement if already applied elsewhere.

Collateral Field Courses

(Choose 20 hours)

CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
ACCT 51201	Accounting I	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04350	Genetics	4
MATH 17114	General Statistics	3
AGRI 03304	Farm Management and Record Analysis	3
AGRI 03455	Advanced Livestock Production and Management	3

Subtotal: 20

MATH 17114: Cannot be used to fulfill any Northwest Core requirement.

NOTE: Grade Requirement: Students may have no more than eight hours of "D" in courses required by this major.

Animal Science Comprehensive Major (Pre-Veterinary Option), 61-64 hours: B.S.–No Minor Required**CIP: 511104**

This option is designed to prepare students for the pursuit of a degree in animal science and/or to meet the pre-professional requirements for a school of veterinary medicine.

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

BIOL 04106	Principles of Biology	3
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BIOL 04107	Principles of Biology Laboratory	1
MATH 17118	College Algebra	3
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

AGRI 03150	Animal Science	4
AGRI 03296	Seminar	1
AGRI 03352	Meat Science	3
AGRI 03358	Livestock Health and Disease Management	3
AGRI 03360	Principles of Animal Nutrition	3
AGRI 03366	Principles of Animal Breeding	3
AGRI 03452	Beef Science	3
	OR	
AGRI 03470	Dairy Science	3
AGRI 03454	Swine Science	3
AGRI 03566	Genetics of Livestock Improvement	3
	OR	
BIOL 04350	Genetics	4
BIOL 04140	General Microbiology	4
	OR	
BIOL 04310	Cell Biology	4
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
MATH 17114	General Statistics	3
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
	Advisor-approved biology elective	3

PHYS 25110, PHYS 25111, PHYS 25112, PHYS 25113 and Biology elective cannot be used to fulfill any Northwest Core requirement.

Take one of the following courses:

AGRI 03362	Anatomy and Physiology of Domestic Animals	3
	OR	
BIOL 04435	Comparative Anatomy	5
	OR	
BIOL 04438	Human Physiology	4

NOTE: Grade Requirement: Students may have no more than eight hours of "D" in courses required by this major.

Total Credit Hours: 61-64**Horticulture Major, 37 hours: B.S.—Minor Required OR Collateral Field Listed Below****CIP: 011103**

A major in horticulture provides opportunity for study of vegetable and fruit production, turfgrass management, greenhouse and nursery management, and landscape design.

Several of the courses in the Horticulture major have prerequisites of AGRI 03130 or BIOL 04112/ BIOL 04113 and AGRI 03234.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17118	College Algebra	3
See advisor for placement in Northwest Core Science requirements.		

Required Courses

AGRI 03130	Plant Science	4
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03296	Seminar	1
AGRI 03380	Plant Propagation	3
AGRI 03381	Applied Entomology	3
AGRI 03582	Plant Diseases	3
	Advisor-approved courses in horticulture	19

Subtotal: 37

Collateral Field Courses

(if minor is not chosen) Choose 24 hours from the following:

GEOL 27110	General Geology	3
GEOL 27111	General Geology Laboratory	1
GEOL 27360	Environmental Geology	4
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
BIOL 04112	General Botany	3
BIOL 04113	General Botany Laboratory	1
BIOL 04140	General Microbiology	4
BIOL 04261	Local Flora	2
BIOL 04350	Genetics	4
BIOL 04376	Basic Ecology	4
BIOL 04412	Plant Anatomy and Morphology	4
BIOL 04430	Plant Physiology	4
BIOL 04576	Methods in Plant and Animal Ecology	3
MATH 17114	General Statistics	3

Subtotal: 24

GEOL 27110, GEOL 27111 and MATH 17114: Cannot be used to fulfill any Northwest Core requirement.

NOTE: Grade Requirement: Students may have no more than seven hours of "D" in courses required by this major.

Agricultural Business Minor, 24 hours: B.S.

CIP: 010102

Requirements

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
	OR	
ECON 52151	Principles of Microeconomics	3
ACCT 51201	Accounting I	3

AGRI 03302	Agricultural Marketing	3
AGRI 03309	Applied Futures Marketing	3
AGRI 03502	Agricultural Prices	3
AGRI 03102: Cannot be used to fulfill any Northwest Core requirement.		

Select 9 hours from the following courses:

ACCT 51202	Accounting II	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54313	Principles of Management	3
MKTG 55430	Sales and Sales Management	3
AGRI 03304	Farm Management and Record Analysis	3
AGRI 03305	Rural Real Estate Appraisal	3
AGRI 03407	Agricultural Finance	3
AGRI 03503	Agricultural Law	3
AGRI 03508	Agriculture Policy	3

Total Credit Hours: 24

Agricultural Communications Minor, 24-25 hours

CIP: 010802

Requirements

Required Courses

AGRI 03150	Animal Science	4
AGRI 03232	Crop Production	3
AGRI 03396	Agricultural Advocacy	3
AGRI 03508	Agriculture Policy	3
COM 29230	Public Speaking	3
COM 29260	Public Relations Techniques	3
MMED 20333	Social Media Strategies	3
COM 29360	Principles of Public Relations	3

Total Credit Hours: 24-25

A three-hour advisor-approved elective may be substituted for Animal Science (AGRI 03150) if Animal Science is required for the student's major.

NOTES: No courses may count for either a major in Communication or a major in Agricultural Science, Agronomy, Animal Science or Horticulture and this minor. Students must complete a minimum of 12 hours in Agricultural Sciences and 12 hours of Communication for this minor. Substitution of required courses must be made in consultation with the advisor.

Agricultural Finance Minor, 24 hours

This is an interdisciplinary minor in conjunction with the Schools of Agricultural Sciences and Business.

CIP: 010102

Requirements

Required Courses

FIN 53325	Investment Principles	3
FIN 53326	Investment Management	3
FIN 53327	Intermediate Financial Management	3
ECON 52352	Money, Credit, and Banking	3
AGRI 03309	Applied Futures Marketing	3
AGRI 03504	Futures Trading	3
AGRI 03407	Agricultural Finance	3

Choose one from the following:

AGRI 03305	Rural Real Estate Appraisal	3
AGRI 03502	Agricultural Prices	3

FIN 53420	Financial Institutions	3
FIN 53422	Real Estate Management	3

NOTES: No courses may count for both a major in Agricultural Science, Agronomy, Animal Science or Horticulture and this minor. Substitution of required courses and selection of elective course must be made in consultation with an advisor.

Total Credit Hours: 24

Agricultural Science Minor, 24 hours

CIP: 020101

Requirements

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03130	Plant Science	4
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4
	Advisor-approved electives in agriculture	9

AGRI 03102, AGRI 03130: Cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 24

Agronomy Minor, 24 hours

CIP: 020402

Requirements

Required Courses

AGRI 03130	Plant Science	4
AGRI 03232	Crop Production	3
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03330	Forage Crop Science	3
	OR	
AGRI 03292	Introduction to Agricultural Pesticides	3
	OR	
AGRI 03432	Soil and Water Conservation	3
AGRI 03336	Crop Physiology	3
	OR	
AGRI 03534	Plant Breeding	3
AGRI 03530	Soil Formation and Classification	3
	OR	
AGRI 03536	Soil Fertility	3
	OR	
AGRI 03543	Soil Chemistry: Environmental Quality and Plant Nutrition	3
AGRI 03381	Applied Entomology	3
	OR	
AGRI 03434	Weed Science: Ecology and Control	3
	OR	
AGRI 03582	Plant Diseases	3
	Advisor-approved electives in agronomy	1

AGRI 03130: Cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 24

Animal Science Minor, 22 hours

CIP: 020201

Requirements

Required Courses

AGRI 03150	Animal Science	4
AGRI 03252	Livestock Evaluation	3
AGRI 03352	Meat Science	3
AGRI 03360	Principles of Animal Nutrition	3
AGRI 03366	Principles of Animal Breeding	3
AGRI 03452	Beef Science	3
	OR	
AGRI 03454	Swine Science	3
	OR	
AGRI 03470	Dairy Science	3
AGRI 03566	Genetics of Livestock Improvement	3

Total Credit Hours: 22

Horticulture Minor, 24 hours

CIP: 020403

Requirements

Required Courses

AGRI 03130	Plant Science	4
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03380	Plant Propagation	3
AGRI 03381	Applied Entomology	3
AGRI 03582	Plant Diseases	3
	Advisor-approved electives in horticulture	7

AGRI 03130: Cannot be used to fulfill any Northwest Core requirement.

Total Credit Hours: 24

Precision Agriculture Minor, 24-25 hours

CIP: 019999

This minor consists of courses specifically designed to provide students with a broad exposure to the Agricultural and Geographic disciplines.

Several of the required and elective courses in this minor have a prerequisite of AGRI 03130 or BIOL 04112/ BIOL 04113 and CHEM 24112/ CHEM 24113 or CHEM 24114/ CHEM 24115. In addition, several of the elective courses have a prerequisite of GEOL 27110/ GEOL 27111 or GEOL 27114/ GEOL 27115 and/or MATH 17118. Students electing to take this minor should choose their Northwest Core science courses to satisfy these prerequisites.

Requirements

Required Courses

AGRI 03232	Crop Production	3
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03440	Introduction to Precision Agriculture	3
AGRI 03445	Applied Research in Precision Agriculture	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
GEOG 32365	Geographic Information Systems	3

Advisor Approved Electives

Choose 1 course:

AGRI 03292	Introduction to Agricultural Pesticides	3
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AGRI 03381	Applied Entomology	3
AGRI 03434	Weed Science: Ecology and Control	3
AGRI 03530	Soil Formation and Classification	3
AGRI 03536	Soil Fertility	3
AGRI 03582	Plant Diseases	3
GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32465	Introduction to Customized GIS	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
GEOG 32565	Advanced Geographic Information Systems	3
GEOL 27340	Introduction to Hydrogeology	3
GEOL 27360	Environmental Geology	4

A three-hour advisor-approved elective may be substituted for Fundamentals of Soil Science (AGRI 03234), if Fundamentals of Soil Science is required in the student's major.

NOTES: No courses may count for either a major in Geography or a major in Agricultural Science, Agronomy, Animal Science or Horticulture and this minor. Substitution of required courses should be made with courses listed under advisor approved electives.

Consultation with an advisor is required to properly select electives for this minor.

Total Credit Hours: 24-25

Agriculture Middle School Certification, 22 hours: Endorsement for (Certifies Grades 5-9 when completed with the Middle School Major) CIP: 131301

The completion of this endorsement meets the requirements for use with Missouri Middle School Certification, grades 5-9.

Requirements

Required Course

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03112	Agricultural Mechanics	4
AGRI 03130	Plant Science	4
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4
AGRI 03320	Foundations of Agricultural Education	3

Total Credit Hours: 22

Farm Operation Two-Year Certificate Program, 60 hours

CIP: 019999

A two-year program designed to allow the student a highly concentrated course of study to prepare for farming or ranching.

Requirements

Required Courses

AGRI 03102	Introductory Agricultural Economics	3
AGRI 03130	Plant Science	4
AGRI 03150	Animal Science	4
AGRI 03234	Fundamentals of Soil Science	4
	Advisor-approved electives in agriculture	30
	Advisor-approved electives	15

Total Credit Hours: 60

Melvin D. and Valorie G. Booth School of Business

Director: Stephen Ludwig

Assistant Director: Benjamin Blackford

Faculty: Casey Abington, Lisa Bishop, Terry Coalter, Ben Collier, Michelle Erickson, Araceli Hernandez, Allison Hoffmann, David Johnson, Brenda Jones, Alfred B. Kelly, Cindy Kenkel, Chi Lo Lim, Janet Marta, Doni Mollus, Jeff Nickerson, Michael Northup, Doug Russell, Tiebing Shi, Hilmi Songur, Malinda Tobin, Deborah Toomey, James Walker, Tekle Wanorie, Rahn Wood

Mission Statement

The mission of the Melvin D. and Valorie G. Booth School of Business is to actively engage students, faculty and the business community in developing experience, knowledge and skills relevant for success in diverse local and global environments.

The faculty in the School advances knowledge through a balance of teaching, scholarly activity, and service. The faculty provides students with relevant and quality educational experiences for lifelong learning. The School of Business places great importance on developing each student's ability to think critically, to advance intellectually, and to communicate effectively. Students majoring in one of the disciplines offered by the School will have numerous opportunities and avenues to prepare them for ethical participation in the global arena of business and/or organizational life.

Important objectives of the Melvin D. and Valorie G. Booth School of Business are:

1. To provide professional assistance to public and private organizations throughout our region.
2. To engage in applied research activities with a particular emphasis on meeting the needs of public and private organizations within our region. Applied research is emphasized because of the needs of the State, the environment in which the college exists, the interests of the faculty and the mission of the University.

Accreditation

Northwest Missouri State University, through its Melvin D. and Valorie G. Booth School of Business, is nationally accredited by the Accreditation Council for Business Schools and Programs (ACBSP) for the offering of the following degree programs: (1) at the graduate level, for the Master of Business Administration (M.B.A.) degree; (2) at the undergraduate level, for the Bachelor of Science (B.S.) degree with majors in Accounting, Business Economics, Finance, Management Information Systems, Business Technology, Business Education, Business Management, International Business and Marketing. The B.S. in Education degrees in Agricultural Education and Business Education are accredited by the National Council for Accreditation of Teacher Education and the Department of Elementary and Secondary Education.

Degree Programs

The School of Business offers programs leading to the Bachelor of Science degree. All majors must complete at least 60% of the comprehensive major from Northwest. Students must earn a grade of "C" or better in all Common Professional Component courses and in all major courses. Students may select from the following comprehensive majors offered by the School of Business: Accounting, Economics, Finance, Business Management, Data Sciences and Informatics, International Business, Marketing, or Organizational Behavior/Human Resource

Management. Majors in Management Information Systems, Business Technology, and Business Education are offered by the School of Computer Science and Information Systems.

Each major is designed to prepare students for their professional career choice by providing them with the critical thinking capabilities and communication skills required for success in today's business world. The variety of majors permits the student a wide range of choices. These alternatives vary from the opportunities of entrepreneurship to the challenges of corporate positions. In addition, the focus of the major may be domestic or international in orientation. Thus, students will have numerous opportunities and avenues which will prepare them for participation in the world of business.

In addition, the School of Business offers interdisciplinary minors in Accounting Information Systems, Agricultural Finance, and Sport Management. Minors in Economics or General Business are available to students who major in another discipline, permitting students to gain exposure to the principles and fundamental concepts of business while pursuing a non-business major.

Business Transfer Requirements

Any community college student or student from another baccalaureate degree-granting institution planning to transfer to Northwest Missouri State University and major in one of the business programs should place heavy emphasis on liberal arts courses during the first two years of study. However, many of these students will wish to include some business courses in their programs and should select those courses from the following:

- College Algebra (3 semester hours)
- Statistics (3 semester hours)
- Computers and Information Technology (3 semester hours)
- Principles of Accounting (3 semester hours)
- Managerial Communication (3 semester hours)
- Macroeconomics (3 semester hours)
- Microeconomics (3 semester hours)
- Business Law (3 semester hours)
- Fundamentals of Business Finance (3 semester hours)
- Principles of Management (3 semester hours)
- Principles of Marketing (3 semester hours)

Any business course taken at another regionally-accredited institution deemed equivalent to a Northwest business course will transfer providing that at least 60 percent of the comprehensive major is completed at Northwest. Students minoring in general business must also complete 60 percent of those requirements at Northwest.

Special articulation agreements have been made with community colleges for the transfer of associate of applied science degrees. Further information may be requested from the Office of Admissions.

Business Advanced Standing Requirement

To ensure students have the necessary tools to begin study in the selected major, the School of Business requires that students must meet certain requirements before enrolling in advanced coursework. Students who choose a comprehensive major must achieve advanced standing. Failure to achieve advanced standing will prohibit the student from graduating with a degree granted by Northwest's School of Business.

To have achieved advanced standing, the student must:

1. Maintain at least a cumulative 2.00 GPA
2. Score at Level 1 or higher on all areas of the ETS Proficiency Profile
3. Earn at least a grade of "C" or better in each of the five courses listed below:

MATH 17114	General Statistics	3
MATH 17118	College Algebra	3
ACCT 51201	Accounting I	3
ECON 52150	Principles of Macroeconomics	3
ECON 52151	Principles of Microeconomics	3
Subtotal: 15		

Students who have met this advanced standing requirement are official members of the School of Business and can pursue any major course of their choosing. Students who have not successfully achieved advanced standing prior to becoming an academic senior *(90 or more academic credit hours) will be prohibited from enrolling in any major course until they have achieved advanced standing.

*In exceptional cases, a student not meeting the "90-hour rule" may appeal to the School's advanced standing committee.

Common Professional Component Requirements for Accredited Business Programs

To ensure a common professional component among the accredited business programs, all students majoring in Accounting, Business Economics, Business Management, Business Technology, Data Sciences and Informatics, Finance, International Business, Management Information Systems, Marketing, and Organizational Behavior/Human Resource Management are required to fulfill the following professional component requirements. A minimum grade of "C" is mandatory for each Common Professional Component and required course.

Note: Data Sciences and Informatics, and Organizational Behavior/Human Resource Management are not yet accredited.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
ECON 52150	Principles of Macroeconomics	3
CSIS 44130	Computers and Information Technology	3

These courses fulfill Northwest Core requirements and are not counted toward the major requirements.

Non-business Courses (6)

MATH 17118	College Algebra	3
ECON 52151	Principles of Microeconomics	3

Business Courses

ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3

MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MGMT 54315	Operations Management	3
MGMT 54417	Organizational Policy and Decision Making	3
MKTG 55330	Principles of Marketing	3
MKTG 55438	International Business	3
CSIS 44317	Management Information Systems	3

Total Credit Hours: 33

Courses listed under the appropriate major must be completed in addition to the above Common Professional Component requirements.

Minors are available in Accounting Information Systems, Business Education, Marketing and Cooperative Education, Economics, General Business, and Sport Management.

School of Business Research Requirement

Students in Principles of Management and Principles of Marketing are required to participate in a School of Business approved research project. Students can complete a survey or write a research paper to fulfill the requirement.

Accounting / 51**Accounting Comprehensive Major, 69 hours: B.S.—No Minor Required****CIP: 520301**

Students choosing a comprehensive major in Accounting must take the Common Professional Component (p. 222) courses and earn a minimum grade of “C” in each of the major courses listed below for the public accounting track or private industry track.

The public accounting track is designed to prepare students for careers in public accounting and/or for taking the examination to become a Certified Public Accountant (CPA). Students wishing to take the CPA examination in Missouri, Nebraska, Iowa and Kansas must have 150 credit hours. The student should complete the public accounting track and continue with an additional 26 hours of coursework to be eligible to sit for the CPA examination. Most students will choose to earn an MBA. (See Northwest Missouri State University Graduate Catalog and your advisor.)

The private industry track is designed to prepare students for careers in management accounting and for taking the examination to become a Certified Management Accountant (CMA).

Requirements**The Northwest Core (48-52 hours)****Public Accounting Track**

ACCT 51301	Cost Accounting	3
ACCT 51303	Tax Accounting I	3
ACCT 51304	Tax Accounting II	3
ACCT 51306	Intermediate Accounting I	3
ACCT 51307	Intermediate Accounting II	3
ACCT 51308	Accounting Information Systems	3
ACCT 51401	Intermediate Accounting III	3
ACCT 51403	Advanced Accounting	3
ACCT 51404	Auditing	3
FIN 53312	Business Law II	3

Private Industry Track

ACCT 51301	Cost Accounting	3
ACCT 51303	Tax Accounting I	3

ACCT 51304	Tax Accounting II	3
ACCT 51306	Intermediate Accounting I	3
ACCT 51307	Intermediate Accounting II	3
ACCT 51308	Accounting Information Systems	3
ACCT 51402	Advanced Cost Accounting	3
ACCT 51403	Advanced Accounting	3
ACCT 51404	Auditing	3
MGMT 54316	Organizational Behavior and Theory	3

This is an ACBSP accredited program.

Accounting Information Systems Minor, 21 hours

This is an interdisciplinary minor in conjunction with the School of Business and the School of Computer Science and Information Systems.

Requirements

Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44460	Database Systems	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
ACCT 51306	Intermediate Accounting I	3
ACCT 51308	Accounting Information Systems	3

Subtotal: 21

Economics / 52

Economics offers programs leading to the Bachelor of Science degree. Students may pursue a comprehensive major in Business Economics or a major in Economics with selection of a minor area. Additionally, students who major in another discipline may complete a minor in Economics. The major objective of the Economics program is to equip students with the principles and methods of sound economic theory and the application of economic theory so that they are prepared for employment in the private or public sectors and for graduate study.

The Economics courses also perform several service functions: (a) they provide students within the Melvin D. and Valorie G. Booth School of Business with knowledge in economics and skills needed for pursuit of successful careers in private business or public service and (b) through Northwest Core courses, they offer all students at the University an opportunity for education in economics so that they become well-informed consumers and citizens who understand economic issues and policies.

Business Economics Comprehensive Major, 60 hours: B.S.—No Minor Required

CIP: 520601

Students choosing a comprehensive major in Business Economics must take the Common Professional Component (p. 222) courses and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

ECON 52351	Macroeconomic Theory	3
ECON 52352	Money, Credit, and Banking	3
ECON 52353	Microeconomic Theory	3
ECON 52450	International Economics	3
ECON 52458	Forecasting Business Conditions	3

Electives

Choose six hours from advisor-approved economics or business electives 6

This is an ACBSP accredited program.

Economics Major, 33 hours: B.S.—Minor Required

CIP: 450601

Students choosing a major in Economics must take and earn a minimum grade of "C" in the following courses:

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

MATH 17114	General Statistics	3
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This course fulfills a Northwest Core requirement and is not counted toward the major requirements.

Required Courses

MATH 17118	College Algebra	3
ECON 52150	Principles of Macroeconomics	3
ECON 52151	Principles of Microeconomics	3
ECON 52351	Macroeconomic Theory	3
ECON 52352	Money, Credit, and Banking	3
ECON 52353	Microeconomic Theory	3
ECON 52450	International Economics	3

ECON 52150: Cannot be used to fulfill any Northwest Core requirement.

Electives (12 hours minimum) from the Directed Concentration areas below**Directed Concentration: Upper Division courses**

Economics courses (minimum of six hours)

Advisor-approved electives from the following areas:

Mathematics (Calculus or more advanced courses)

Finance

Marketing

Management

Political Science

NOTE: A business minor is encouraged, but students should be careful not to double count minor courses and elective courses in the directed concentration. See your advisor.

Total Credit Hours: 33

Economics Minor, 18 hours

CIP: 450601

Students choosing a minor in Economics must take and earn a minimum grade of "C" in the following courses:

Requirements**Required Courses**

ECON 52150	Principles of Macroeconomics	3
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ECON 52151 Principles of Microeconomics 3
 ECON 52150: If ECON 52150 is applied to the minor requirement it cannot be used to also fulfill
 The Northwest Core requirement.

Choose 12 hours of upper division Economics electives

Upper division Economics electives 12

Total Credit Hours: 18

Finance / 53

Finance Comprehensive Major, 63 hours: B.S.—No Minor Required CIP: 520801

Finance directly affects the lives and well-being of every person and organization, whether financial or non-financial, public or private, profit or non-profit. These individuals and organizations earn or raise money and spend or invest money. The processes and decision-making methods to carry out these activities are the purview of finance which has been defined as the art and science of managing money. The study of finance is concerned with the processes, institutions, markets and instruments involved in the transfer of money within and between individuals, businesses and governments. The major areas of finance can be divided into four broad categories: financial services, corporate finance, insurance and real estate. The goal of the finance faculty is to prepare graduates for all of the categories in the world of finance.

The Financial Services Option is designed to prepare students for the financial services industry. This comprises the professions of brokerage, insurance, real estate and banking. In this business sector the students will need to understand the products customers purchase and how to relate this information to the customer.

The Financial Computing Option will bring together course work in both finance and computer science. This area of finance lends itself to the use of many financial decision-making models which are constructed and manipulated with computer technology. This option will lead to employment where there is a need to process data for financial decision making.

The Corporate Finance Option will provide the student with the tools to work within the corporate structure under the chief financial officer, where accounting and financial information is used to make corporate decisions. The student will be able to communicate with both the financial and accounting personnel and identify accounting information and financial models for decision making.

The Financial Management Option will permit students to prepare for a position in management rather than a staff position in finance under the corporate treasurer. This option blends the knowledge of finance and management so the student will be prepared to make management decisions that require an understanding of finance. Almost all decisions in business require a balance of interests from all functional business areas, using the decision-making process and the tools of finance to guide the corporation to the achievement of its goal.

Students choosing a comprehensive major in Finance must take the Common Professional Component (p. 222) courses and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Option One: Financial Services, 24 hours

Required Courses

ECON 52352	Money, Credit, and Banking	3
FIN 53320	Insurance and Risk	3

FIN 53325	Investment Principles	3
FIN 53326	Investment Management	3
FIN 53327	Intermediate Financial Management	3
FIN 53420	Financial Institutions	3
MKTG 55430	Sales and Sales Management	3

Choose 3 hours from electives

ACCT 51303	Tax Accounting I	3
ACCT 51304	Tax Accounting II	3
ACCT 51408	Managerial Accounting	3
FIN 53422	Real Estate Management	3

Option Two: Financial Computing, 24 hours**Required Courses**

FIN 53325	Investment Principles	3
FIN 53327	Intermediate Financial Management	3
FIN 53420	Financial Institutions	3
FIN 53421	Selected Cases in Finance	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44346	Database Applications	1
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3
	Approved electives in Finance or Computer Science	3

Option Three: Corporate Finance, 24 hours**Required Courses**

FIN 53325	Investment Principles	3
FIN 53326	Investment Management	3
FIN 53327	Intermediate Financial Management	3
FIN 53421	Selected Cases in Finance	3
ACCT 51301	Cost Accounting	3
ACCT 51306	Intermediate Accounting I	3
ACCT 51402	Advanced Cost Accounting	3
	Approved electives in Finance or Accounting	3

Option Four: Financial Management, 24 hours**Required Courses**

FIN 53325	Investment Principles	3
FIN 53327	Intermediate Financial Management	3
FIN 53420	Financial Institutions	3
FIN 53421	Selected Cases in Finance	3
MGMT 54314	Human Resource Management	3
MGMT 54316	Organizational Behavior and Theory	3

MGMT 54318	Entrepreneurship	3
	OR	
MGMT 54320	Negotiations	3

Approved electives in Finance or Management 3

This program is an ACBSP accredited program.

Agricultural Finance Minor, 24 hours

This is an interdisciplinary minor in conjunction with the Schools of Agricultural Sciences and Business.

CIP: 010102

Requirements

Required Courses

FIN 53325	Investment Principles	3
FIN 53326	Investment Management	3
FIN 53327	Intermediate Financial Management	3
ECON 52352	Money, Credit, and Banking	3
AGRI 03309	Applied Futures Marketing	3
AGRI 03504	Futures Trading	3
AGRI 03407	Agricultural Finance	3

Choose one from the following:

AGRI 03305	Rural Real Estate Appraisal	3
AGRI 03502	Agricultural Prices	3
FIN 53420	Financial Institutions	3
FIN 53422	Real Estate Management	3

Total Credit Hours: 24

Management / 54

Business Management Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 520201

Students choosing a comprehensive major in Business Management must complete the Common Professional Component (p. 222) courses, and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

MGMT 54314	Human Resource Management	3
MGMT 54316	Organizational Behavior and Theory	3
MGMT 54318	Entrepreneurship	3
MGMT 54320	Negotiations	3
MGMT 54413	Business and Society	3

Students must take two of the following for a total of 6 hours:

ECON 52354	Labor Economics	3
MGMT 54415	Intern in Management	1 to 3
	OR	
MKTG 55435	Intern in Marketing	1 to 3
MGMT 54436	Multinational Management	3
MKTG 55437	International Marketing	3
MKTG 55440	Business Study Abroad	1 to 6

Recommended Electives

	300 or 400-level advisor-approved elective	3
This program is an ACBSP accredited program.		

Data Sciences and Informatics Comprehensive Major-Business Emphasis, 73 hours: B.S.—No Minor Required

CIP: 279999

Requirements

The Northwest Core (48-52 hours)

Core Requirements for a Major in Data Sciences and Informatics

Required Courses

MATH 17120	Calculus I	4
MATH 17215	Discrete Mathematics	3
MATH 17316	Linear Statistical Models I	3
MATH 17318	Linear Statistical Models II	3
MATH 17356	Data Mining with Applications to Business and Sciences	3
CSIS 44141	Computer Programming I	3
CSIS 44155	Introduction to Data Science and Data Mining	3
CSIS 44241	Computer Programming II	3
CSIS 44413	Visualization	3
CSIS 44317	Management Information Systems	3
CSIS 44460	Database Systems	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
PHIL 39275	Professional Ethics	3
ECON 52150	Principles of Macroeconomics	3

Note: If MATH 17120 is also used to fulfill a Northwest Core requirement, the hours may be counted only once toward the 124 required for graduation.

PHIL 39275 and ECON 52150 fulfill Northwest Core Requirements.

CSIS 44130 is a prerequisite for CSIS 44141 and fulfills a Northwest Core Requirement.

MATH 17114 is a prerequisite for CSIS 44155 and fulfills a Northwest Requirement.

Business (27)

Required Courses

ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
ECON 52151	Principles of Microeconomics	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54315	Operations Management	3
MGMT 54417	Organizational Policy and Decision Making	3
MKTG 55438	International Business	3
ECON 52458	Forecasting Business Conditions	3

Total Credit Hours: 73

Organizational Behavior/Human Resource Management Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 521001

Students choosing a comprehensive major in Organizational Behavior/Human Resource Management must complete the Common Professional Component (p. 222) courses, and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Must include the following courses in addition to The Northwest Core courses required in the Common Professional Component:

PHIL 39275	Professional Ethics	3
COM 29225	Intercultural Communication	3

OB/HR Subject areas requirements (24 hours)

MGMT 54314	Human Resource Management	3
MGMT 54520	Advanced Human Resource Management Seminar	3

MGMT 54321	Staffing	3
MGMT 54322	Employee Rewards and Benefits	3
MGMT 54421	Internship in Human Resource Management	1 to 3
MGMT 54316	Organizational Behavior and Theory	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08526	Psychology of Leadership	3

Total Credit Hours: 63**General Business Minor, 24 hours****CIP: 520101**

Students choosing the minor in General Business must take the following courses and earn a grade of "C" or better in each course:

Requirements**Required Courses**

ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
ECON 52151	Principles of Microeconomics	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3

Total Credit Hours: 24

Students with a comprehensive major in any business discipline requiring the Common Professional Component are not permitted to minor in general business. This minor is intended for non-business majors.

Sport Management Interdisciplinary Minor, 24 hours

This is an interdisciplinary minor in conjunction with the School of Business and the School of Health Science and Wellness.

Requirements**Required Courses**

MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MGMT 54345	Sport Management	3
MKTG 55330	Principles of Marketing	3
HPER 22515	Issues in Sport	3
REC 45450	Field Experience in Recreation and Park Management	3
	OR	
REC 45452	Field Experience in Corporate Recreation/Wellness	3
	OR	
REC 45455	Field Experience in Sport Management	3

Choose two from the following:

REC 45545	Risk Management	3
REC 45440	Leisure Resources/Facility Design and Management	3
REC 45525	Commercial Recreation	3
REC 45533	Recreation Sports Management	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

Note: One advisor-approved course (300-level or above) can be substituted for one of the above courses.

Total Credit Hours: 24

Management Information Systems Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 521201

This major is housed under the School of Computer Science and Information Systems. Students choosing a comprehensive major in Management Information Systems must take the Common Professional Component courses (p. 222) plus fulfill the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44356	Network Fundamentals	3
CSIS 44411	Systems Analysis and Design	3
CSIS 44418	Information Technology Project Management	3
CSIS 44460	Database Systems	3

Choose one from the following electives:

CSIS 44242	Data Structures	3
CSIS 44334	Web Development II	3
CSIS 44358	CCNA: Routing Protocols and Concepts	3
CSIS 44555	Network Security	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44563	Developing Web Applications and Services	3

Note: Grade Requirement: Students must earn a grade of “C” or better in each of the CS and IS and Common Professional Component courses in this major. A major field assessment is required of all senior year students majoring in MIS.

This program is an ACBSP accredited program.

Business Technology Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 520401

This major is housed under the School of Computer Science and Information Systems. Students choosing a comprehensive major in Business Technology must take the Common Professional Component courses (p. 222) plus fulfill the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
	Approved Electives	6

Choose one of the following emphasis areas for six hours (6):

Interactive Digital Media Emphasis

CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3

Management Emphasis

MGMT 54314	Human Resource Management	3
MGMT 54316	Organizational Behavior and Theory	3

Networking Emphasis

CSIS 44356	Network Fundamentals	3
CSIS 44555	Network Security	3

Total Credit Hours: 63

This program is an ACBSP accredited program.

**Business Education Major, 48 hours: B.S.Ed., Secondary Program—
No Minor Required (Certifies Grades 9-12)**

CIP: 131303

This major is housed under the School of Computer Science and Information Systems. Students choosing a major in Business Education must take the Professional Education Requirements (p. 279), plus fulfill the following major requirements:

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

ECON 52150	Principles of Macroeconomics	3
CSIS 44130	Computers and Information Technology	3

Required Courses

MATH 17114	General Statistics	3
	OR	
MATH 17118	College Algebra	3
ECON 52151	Principles of Microeconomics	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MKTG 55438	International Business	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
CSIS 44510	Coordination of Cooperative Education	3
CSIS 44584	Implementing Business and Marketing Education Programs	3

Choose 6 hours from:

CSIS 44141	Computer Programming I	3
CSIS 44144	Web Development I	3
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44317	Management Information Systems	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1

CSIS 44580 Methods of Teaching Business and Marketing is the required subject field methods course.

Total Credit Hours: 48

Marketing / 55

International Business Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 521101

Students choosing a comprehensive major in International Business must take the Common Professional Component (p. 222) courses and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

ECON 52450	International Economics	3
MKTG 55431	Logistics Management	3
	OR	
MKTG 55434	Marketing Management	3
MKTG 55437	International Marketing	3
MGMT 54436	Multinational Management	3

International Experience (6)

Six hours of business credit which may include courses of study and/or internship in a foreign country.

Exemptions from the foreign study requirement are available **only** with Director approval.

International students may choose to fulfill this requirement through internships or other business courses at Northwest.

Cultural Understanding (6)

Students must complete six hours according to Option A or B based upon advisor direction. Option B is required unless fluent in a foreign language.

Option A – Global Political Economy

GEOG 32221	Economic Geography	3
POLS 34305	Global Events and Trends	3

Option B – Foreign Language

Six hours above the introductory level in any modern language

This program is an ACBSP accredited program.

Marketing Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP 521401

Students choosing a comprehensive major in Marketing must complete the Common Professional Component (p. 222) courses and earn a minimum grade of "C" in each of the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

MKTG 55332	Promotion	3
MKTG 55333	Consumer Behavior	3
MKTG 55430	Sales and Sales Management	3

MKTG 55432	Marketing Research	3
MKTG 55434	Marketing Management	3
Student must take two of the following for a total of 6 hours:		
MGMT 54415	Intern in Management OR	1 to 3
MKTG 55435	Intern in Marketing	1 to 3
MKTG 55331	Retailing	3
MKTG 55431	Logistics Management	3
MKTG 55437	International Marketing	3
MKTG 55440	Business Study Abroad	1 to 6
Recommended Electives (3)		
	300 or 400-level advisor-approved elective	3
This program is an ACBSP accredited program.		

School of Communication and Mass Media

Director: Matt Walker

Assistant Director: Jody Strauch

Faculty: Philip Beskid, Steven Chappell, Joy Daggs, Lori Durbin, Bayo Joachim, John Katsion, Fred Lamer, Jacquie Lamer, Jason Offutt, David Shadinger, Doug Sudhoff, Brian Swafford, Nathan Wilson

Staff: Marla McCrary, Leslie Murphy, Will Murphy

Statement of Mission

Northwest Missouri State University is a learning-centered community of scholars offering undergraduate and selected graduate programs. The University is committed to preparing broadly educated and engaged citizens for a world of constant change, applying information technology to improve learning processes, and promoting continuous improvement to enhance performance in all its activities. Northwest seeks to expand access to learning and promote research designed to address the needs of our students and stakeholders.

Communication / 29

The Bachelor of Arts in Communication and the Bachelor of Science in Communication each have options for concentrated study in one of four areas: Public Relations (comprehensive, no minor required), Organizational Communication (comprehensive, no minor required), Interpersonal Communication (minor required), and Rhetoric (minor required).

The Public Relations options combine communication courses with appropriate coursework in management, marketing and mass communication to provide a broad preparation for various careers within the public relations field. No minor is required for these programs.

The Organizational Communication options augment the studies of communication theory and performance with courses in management, psychology and writing designed to prepare students for the myriad of careers within organizational communication.

The Interpersonal Communication options seek to understand how communication creates and shapes relationships to prepare for careers in human resources, training and development, social work, counseling and clinical psychology or continuation in graduate study.

The Rhetoric options develop effective critical thinking skills and understanding of ethical issues to understand persuasive communication in order to prepare for careers in law, social service, or political fields, or continuation in graduate study.

The comprehensive Bachelor of Science in Education in Speech/Theatre (55 hours) prepares students to teach and direct speech and theatre in secondary schools. This major does not require a minor and, when completed under the B.S.Ed., Secondary Education Program, meets the State of Missouri teacher certification standards for grades 9-12.

The non-comprehensive Bachelor of Science in Education in Speech/Theatre (38 hours) requires a minor. This major, when completed under the B.S.Ed., Secondary Education Program, also meets the State of Missouri teacher certification standards for grades 9-12.

The minor in Communication is comprised of 24 hours. Minors are required to take the 15-hour communication core and an additional 9 hours in an area of emphasis (Public Relations, Organizational Communication, Interpersonal Communication or Rhetoric).

A minor in Speech/Theatre Education (32 hours) is available to students majoring in another area. This minor, when completed under the B.S.Ed., Secondary Education Program, meets the State of Missouri teacher certification standards for grades 9-12.

The school also offers an endorsement in Speech/Theatre for students seeking Missouri Middle School (grades 5-9) certification. The middle school program is advised through the College of Education and Human Services.

Test-Out Policy

Test-out is available for COM 29102, Fundamentals of Oral Communication. For further information, contact the director of the COM 29102 program.

Please refer to the “Departmental Test-Out” information (p. 45) contained in the “Academic Policies” section of the catalog for policy information. Students should contact the school for additional details.

Speech/Theatre Education Directing Requirement

All candidates for the B.S.Ed. degree with a secondary speech/theatre major must demonstrate their ability to direct a complete theatrical presentation that is approved by department faculty. Opportunities for meeting this requirement will be discussed with the academic advisor and include lab series, second stage, and external venue shows. THEA 43373 Directing must be successfully completed prior to attempting this requirement.

Advanced Standing Requirement

Students majoring in the communication programs must complete University Seminar (1 hour), English Composition (6 hours), Oral Communication (3 hours), and Mathematics (3-4 hours) by the end of the sophomore year. A student must achieve a cumulative grade point average of 2.00 for all courses listed above. No major in the school may be enrolled in and pursue advanced school courses (numbered 300 or above) until these courses and the specific advanced standing requirements for the student’s major are met.

Students seeking exemption, or who are not granted advanced standing in communication may appeal by submitting a written petition to the Director of the School of Communication and Mass Media.

Communication Majors

Students seeking a major or a minor in communication are expected to demonstrate a capacity to integrate principles of spoken and written communication and sufficient commitment to expand their knowledge in order to successfully pursue advanced study.

To achieve communication advanced standing, a student must have completed at least six hours of 200-level courses or equivalent in communication.

Communication Core Requirements

Core Requirements for Majors and Minors in Communication

Courses

COM 29210	Communication Theory	3
COM 29230	Public Speaking	3
COM 29232	Small Group Communication	3
COM 29332	Propaganda and Persuasion	3
COM 29335	Interpersonal Communication	3

Total Credit Hours: 15

Communication Major, 33-54 hours: B.A.

Public Relations Option, 54 hours—No Minor Required

The Northwest Core (48-52 hours)

Recommended:

COM 29225	Intercultural Communication	3
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Required Courses

	Communication Core	15
COM 29260	Public Relations Techniques	3
COM 29310	Communication Research Methods	3
COM 29360	Principles of Public Relations	3
COM 29460	Public Relations Problems: Cases, Concepts, and Campaigns	3
COM 29469	Internship in Public Relations	1 to 3
COM 29498	Senior Capstone	3

Cognate Courses

MMED 20130	Professional Media Writing	3
MMED 20333	Social Media Strategies	3
ENGL 10315	Writing for the Professions OR	3
ENGL 10430	Writing for the Online Age OR	3
ENGL 10512	Publication Skills	3
MKTG 55330	Principles of Marketing	3

Six hours from the following according to student's area of emphasis (6):

COM 29420	Crisis Communication	1 to 3
COM 29402	Current Topics in Communication	3

Three hours from the following to support the student's area of emphasis (3):

MMED 20230	Introduction to Advertising	3
MMED 20303	Introduction to Web Publishing	3
MMED 20304	Advertising Case Studies	3
COM 29336	Nonverbal Communication	3
COM 29341	Argumentation and Debate	3
COM 29432	Organizational Communication	3
ACCT 51201	Accounting I	3
MGMT 54313	Principles of Management	3
MKTG 55332	Promotion	3
MKTG 55333	Consumer Behavior	3
MKTG 55432	Marketing Research	3
	Other courses as approved by advisor	

Subtotal: 54

Organizational Communication Option, 54 hours—No Minor Required

The Northwest Core (48-52 hours)

Required Courses

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29240	Principles of Leadership	3
COM 29310	Communication Research Methods	3
COM 29325	Listening Behavior and Skills	3
COM 29432	Organizational Communication	3
COM 29467	Internship in Organizational Communication	1 to 3
COM 29498	Senior Capstone	3

Three hours to be chosen from the following (3)

COM 29336	Nonverbal Communication	3
COM 29341	Argumentation and Debate	3
COM 29401	Special Topics	1 to 3

Cognate Courses

PSYC 08313	Industrial and Organizational Psychology	3
ENGL 10311	Advanced Composition OR	3
ENGL 10315	Writing for the Professions	3
MGMT 54313	Principles of Management	3
MGMT 54314	Human Resource Management	3

Three hours from the following (3)

PSYC 08363	Psychology of Personality	3
SOC 35365	Social Psychology	3
MGMT 54310	Managerial Communication	3
Subtotal: 54		

Interpersonal Communication Option, 33 hours—Minor Required

The Northwest Core (48-52 hours)

Required Courses

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29310	Communication Research Methods	3
COM 29325	Listening Behavior and Skills	3
COM 29341	Argumentation and Debate	3
COM 29498	Senior Capstone	3
	Approved electives	3

Subtotal: 33

Rhetoric Option, 33 hours—Minor Required

The Northwest Core (48-52 hours)

Required Courses

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29310	Communication Research Methods	3
COM 29341	Argumentation and Debate	3
COM 29343	Rhetoric of American Issues	3
COM 29498	Senior Capstone	3
	Approved electives	3

Note: COM 29235 Introduction to Classical Rhetoric is a prerequisite for COM 29343 and will satisfy a Northwest Core requirement.

Subtotal: 33

Communication Major, 36-60 hours: B.S.

Public Relations Option, 60 hours—No Minor Required

The Northwest Core (48-52 hours)

Recommended:

COM 29225	Intercultural Communication	3
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Required Courses

	Communication Core	15
COM 29260	Public Relations Techniques	3
COM 29310	Communication Research Methods	3

COM 29360	Principles of Public Relations	3
COM 29460	Public Relations Problems: Cases, Concepts, and Campaigns	3
COM 29469	Internship in Public Relations	1 to 3
COM 29498	Senior Capstone	3

Cognate Courses

MMED 20130	Professional Media Writing	3
MMED 20333	Social Media Strategies	3
ENGL 10315	Writing for the Professions OR	3
ENGL 10430	Writing for the Online Age OR	3
ENGL 10512	Publication Skills	3
MKTG 55330	Principles of Marketing	3

Six hours from the following according to student's area of emphasis (6):

COM 29420	Crisis Communication	1 to 3
COM 29402	Current Topics in Communication	3

Nine hours from the following to support the student's area of emphasis (9):

MMED 20230	Introduction to Advertising	3
MMED 20303	Introduction to Web Publishing	3
MMED 20304	Advertising Case Studies	3
COM 29336	Nonverbal Communication	3
COM 29341	Argumentation and Debate	3
COM 29432	Organizational Communication	3
ACCT 51201	Accounting I	3
MGMT 54313	Principles of Management	3
MKTG 55332	Promotion	3
MKTG 55333	Consumer Behavior	3
MKTG 55432	Marketing Research	3
	Other courses as approved by advisor	

Subtotal: 60

Organizational Communication Option, 60 hours—No Minor Required**The Northwest Core (48-52 hours)****Required Courses**

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29240	Principles of Leadership	3
COM 29260	Public Relations Techniques	3
COM 29310	Communication Research Methods	3
COM 29325	Listening Behavior and Skills	3
COM 29432	Organizational Communication	3
COM 29467	Internship in Organizational Communication	1 to 3
COM 29498	Senior Capstone	3

Six hours to be chosen from the following (6)

COM 29336	Nonverbal Communication	3
COM 29341	Argumentation and Debate	3
COM 29401	Special Topics	1 to 3

Cognate Courses

PSYC 08313	Industrial and Organizational Psychology	3
ENGL 10311	Advanced Composition OR	3
ENGL 10315	Writing for the Professions	3
MGMT 54313	Principles of Management	3

MGMT 54314	Human Resource Management	3
Three hours from the following (3)		
PSYC 08363	Psychology of Personality	3
SOC 35365	Social Psychology	3
MGMT 54310	Managerial Communication	3
Subtotal: 60		

Interpersonal Communication Option, 36 hours—Minor Required

The Northwest Core (48-52 hours)

Required Courses

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29310	Communication Research Methods	3
COM 29325	Listening Behavior and Skills	3
COM 29341	Argumentation and Debate	3
COM 29468	Internship in Speech Communication	1 to 3
COM 29498	Senior Capstone	3
	Approved electives	3
Subtotal: 36		

Rhetoric Option, 36 hours—Minor Required

The Northwest Core (48-52 hours)

Required Courses

	Communication Core	15
COM 29225	Intercultural Communication	3
COM 29310	Communication Research Methods	3
COM 29341	Argumentation and Debate	3
COM 29343	Rhetoric of American Issues	3
COM 29468	Internship in Speech Communication	1 to 3
COM 29498	Senior Capstone	3
	Approved electives	3

Note: COM 29235 Introduction to Classical Rhetoric is a prerequisite for COM 29343 and will satisfy a Northwest Core requirement.

Subtotal: 36

Communication Minor, 24 hours

CIP: 090999

Requirements

Required Courses

Communication Core	15
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Select one of three emphasis areas for an additional nine hours:

Interpersonal Communication Emphasis

COM 29225	Intercultural Communication	3
COM 29325	Listening Behavior and Skills	3
COM 29336	Nonverbal Communication	3

Organizational Communication Emphasis

COM 29225	Intercultural Communication	3
COM 29240	Principles of Leadership	3
COM 29432	Organizational Communication	3

Public Relations Emphasis

COM 29260	Public Relations Techniques	3
COM 29360	Principles of Public Relations	3
COM 29460	Public Relations Problems: Cases, Concepts, and Campaigns	3

The Northwest Core (48-52 hours)

Recommended:

COM 29225	Intercultural Communication	3
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Rhetoric Emphasis

COM 29225	Intercultural Communication	3
COM 29341	Argumentation and Debate	3
COM 29343	Rhetoric of American Issues	3

The Northwest Core (48-52 hours)

Must include the following:

COM 29235	Introduction to Classical Rhetoric	3
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Total Credit Hours: 24**Speech/Theatre Education****Speech/Theatre Education Core Requirements****Requirements****Core Requirements for Majors in Speech/Theatre Education**

THEA 43110	Theatre Foundations	3
THEA 43210	Design Principles in Theatre	3
THEA 43225	Oral Interpretation and Textual Analysis	3
THEA 43230	Acting	3
COM 29210	Communication Theory	3
COM 29230	Public Speaking	3

Total Credit Hours: 18**Speech/Theatre Education Comprehensive Major, 55 hours:
B.S.Ed.—No Minor Required (Certifies Grades 9-12)**

CIP: 131399

Requirements**The Northwest Core (48-52 hours)****Required Courses**

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics AND/OR	1 to 4
COM 29338	Advanced Practicum in Debate and Forensics	1 to 4
COM 29232	Small Group Communication	3
COM 29325	Listening Behavior and Skills	3
COM 29332	Propaganda and Persuasion	3
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3
THEA 43460	Creative Dramatics	3

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre history from (3):

THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Eight hours of approved speech communication, theatre, or mass communication electives
Electives 8

Total Credit Hours: 55

This major, when completed under the B.S.Ed., Secondary Program, meets Missouri teacher certification standards for speech/theatre secondary level.

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Speech/Theatre Education Major, 38 hours: B.S.Ed.—Minor Required (Certifies Grades 9-12)

Requirements

The Northwest Core (48-52 hours)

Required Courses

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics AND/OR	1 to 4
COM 29338	Advanced Practicum in Debate and Forensics	1 to 4
COM 29332	Propaganda and Persuasion	3
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3

Two hours of technical skills from (2):

THEA 43211	Technical Skills: Scenery	2
THEA 43212	Technical Skills: Costumes	2
THEA 43213	Technical Skills: Electrics	2

Three hours of theatre history from (3):

THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Total Credit Hours: 38

This major, when completed under the B.S.Ed. Secondary Program, meets Missouri teacher certification standards for speech/theatre secondary level.

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Speech/Theatre Education Minor, 32 hours, (Certifies Grades 9-12)

See Professional Education Requirements (p. 272).

CIP: 131324

Requirements

Required Courses

	Speech/Theatre Education Core Requirements	18
COM 29133	Practicum in Debate and Forensics	1 to 4
COM 29335	Interpersonal Communication	3
COM 29341	Argumentation and Debate	3
THEA 43305	Independent Practicum in Theatre	1
THEA 43373	Directing	3

Three hours from:

COM 29325	Listening Behavior and Skills	3
COM 29332	Propaganda and Persuasion	3
THEA 43407	History of Theatre I	3
THEA 43408	History of Theatre II	3

Students must take COM 29480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

Total Credit Hours: 32**Speech/Theatre for the Middle School Area of Endorsement, 21 hours**

CIP: 131331

Certifies Grades 5-9 when completed with the Middle School major.

Requirements**Required Courses**

THEA 43110	Theatre Foundations	3
THEA 43230	Acting	3
THEA 43373	Directing	3
THEA 43460	Creative Dramatics	3
COM 29210	Communication Theory	3
COM 29230	Public Speaking	3
COM 29341	Argumentation and Debate	3

Total Credit Hours: 21

The completion of the above requirements meets the Speech/Theatre Area of Endorsement for use with Missouri Middle School Certification, grades 5-9. Students must take COM 29480 Methods of Teaching Speech/Theatre in the Secondary School. Advisement for Middle School Certification is provided by the School of Education. See that section of this catalog.

Mass Media / 20

The School of Communication and Mass Media offers undergraduate programs in mass media, advertising, and interactive digital media to prepare students for the converged media industry. The mass media major also allows students to learn a core set of production and critical thinking skills within a focused area of interest such as multimedia journalism, sports media, broadcast and production, and applied advertising. Students majoring in the mass media degrees develop not only communication skills (verbal, written, listening, and interpersonal) but also critical thinking skills and equipment and computer operation skills. Careful attention is given to achieving a balance between cognitive development and specific skills acquisition; therefore, students also develop a broad understanding and appreciation of the historical, theoretical and operational nature of the mass media.

In addition, students are encouraged at the very beginning of their University experience to become involved with a variety of hands-on activities with award-winning media outlets KZLX-LP, KXCV/KRNW-FM, KNWT-TV, *Northwest Missourian* newspaper, nwmissourinews.com (converged online news site), *Tower* yearbook, *Heartland View* online magazine, and student media organizations. These experiences lead to a realistic view of professional working conditions. Students are further guided in the acquisition of appropriate time management, adaptation, and teamwork skills.

Advanced Standing Requirement

Mass Media majors may not enroll in upper division mass media courses (numbered 300 or above) prior to successful completion of the School of Communication and Mass Media's advanced standing requirements:

1. Students must complete MMED 20110, MMED 20120 and MMED 20130 with a minimum grade of “C.”
2. The student shall have an assigned major advisor from the Mass Media faculty.

Assessment of Core Proficiencies Requirement

Students must receive a score of at least 1 in two of the three test areas or they must retake the Assessment of Core Proficiencies test, an assessment given when the student reaches junior status. Students who do not reach this requirement will be notified by either their advisor or the department chairperson. It is the student’s responsibility to arrange for retaking the test.

Degree Programs

The Bachelor of Arts in Media Studies (31 hours) is designed to provide students with theoretical and applied knowledge and a liberal arts education through the requirements for the B.A. degree.

The Bachelor of Science in Mass Media (55 hours), in Advertising (61 hours), and in Interactive Digital Media (61 hours) are available to those seeking the B.S. degree. In addition to providing a comprehensive theoretical foundation within the discipline, these degrees provide extensive practical knowledge and experience.

A minor in Broadcasting (24 hours), a minor in Journalism (24 hours), a minor in Advertising (24 hours) and an interdisciplinary minor in Interactive Digital Media (24 hours) are available to students with majors in other academic disciplines.

Media Studies Major, 31 hours: B.A.—Minor Required

CIP: 090100

Requirements

The Northwest Core (48-52 hours)

Required Courses

MMED 20120	Introduction to Mass Media	3
MMED 20130	Professional Media Writing	3
MMED 20220	Media Literacy	3
MMED 20221	Ethnographic Film Study	3
MMED 20303	Introduction to Web Publishing	3
MMED 20314	Communication Law and Ethics	3
MMED 20333	Social Media Strategies	3
MMED 20320	Theories of Mass Communication	3
MMED 20409	Media Business and Entrepreneurship	3
MMED 20412	Comparative Mass Media Systems	3
MMED 20416	Senior Seminar	1

Total Credit Hours: 31

Mass Media Major, 55 hours: B.S.—No Minor Required

Areas of Emphasis: Applied Advertising, Broadcast and Production, Multimedia Journalism, Sports Media

CIP: 090100

Requirements

The Northwest Core (48-52 hours)

Core Courses for a Major in Mass Media

Required Core Courses

MMED 20110	Fundamentals of Electronic Media Production	3
MMED 20120	Introduction to Mass Media	3
MMED 20130	Professional Media Writing	3
MMED 20220	Media Literacy	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
MMED 20314	Communication Law and Ethics	3
MMED 20320	Theories of Mass Communication	3
MMED 20409	Media Business and Entrepreneurship	3
MMED 20416	Senior Seminar	1
Subtotal: 28		

Mass Media: Applied Advertising Emphasis

Required Courses

	Mass Media Core	28
MMED 20230	Introduction to Advertising	3
MMED 20304	Advertising Case Studies	3
MMED 20321	Media Planning and Sales	3
MMED 20333	Social Media Strategies	3
MMED 20343	Advanced Media Design	3
MMED 20428	Creative Concepts in Advertising	3
	Advisor-approved elective	3

Six hours from the following (6):

MMED 20150	Journalism Practicum (Yearbook)	1
MMED 20151	Journalism Practicum (Newspaper)	1
MMED 20215	Practicum in Radio	1
MMED 20216	Practicum in Television	1
MMED 20322	Advanced Practicum in Radio	2
MMED 20326	Advanced Practicum in Television	2
MMED 20350	Advanced Journalism Practicum (Yearbook)	2
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
Subtotal: 55		

Mass Media: Broadcast and Production Emphasis

Required Courses

	Mass Media Core	28
MMED 20111	Introduction to Broadcast Operations	3
MMED 20224	Introduction to Audio	3
MMED 20225	Video Production	3
MMED 20230	Introduction to Advertising	3
	OR	
MMED 20304	Advertising Case Studies	3

Three hours from the following (3):

MMED 20215	Practicum in Radio	1
MMED 20216	Practicum in Television	1
MMED 20322	Advanced Practicum in Radio	2
MMED 20326	Advanced Practicum in Television	2

Choose one of the following concentration areas for twelve hours (12):

Audio Concentration

MMED 20329	Audio Technology and Recording	3
MMED 20406	Advanced Audio (Music)	3
	OR	
MMED 20407	Advanced Audio (Post)	3

MMED 20490	Sound Design and Aesthetics Advisor-approved electives	3 3
Video Concentration		
MMED 20330	Advanced Video Production	3
MMED 20417	Television Directing OR	3
MMED 20484	Digital Cinematography	3
	Approved Electives	6
Subtotal: 55		

Mass Media: Multimedia Journalism Emphasis

Required Courses

	Mass Media Core	28
MMED 20227	Reporting	3
MMED 20315	Video Journalism	3
MMED 20327	Advanced Reporting	3
MMED 20333	Social Media Strategies	3
MMED 20352	Copy Editing	3
MMED 20355	Photojournalism	3
MMED 20357	Opinion Writing OR	3
MMED 20358	Feature Writing	3
	Advisor-approved electives	3

Three hours from the following (3):

MMED 20150	Journalism Practicum (Yearbook)	1
MMED 20151	Journalism Practicum (Newspaper)	1
MMED 20215	Practicum in Radio	1
MMED 20216	Practicum in Television	1
MMED 20322	Advanced Practicum in Radio	2
MMED 20326	Advanced Practicum in Television	2
MMED 20350	Advanced Journalism Practicum (Yearbook)	2
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
Subtotal: 55		

Mass Media: Sports Media Emphasis

Required Courses

	Mass Media Core	28
MMED 20227	Reporting	3
MMED 20315	Video Journalism	3
MMED 20345	Sports Broadcasting	3
MMED 20352	Copy Editing	3
MMED 20356	Sports Photography	3
MMED 20359	Sports Reporting	3
	Advisor-approved electives	3

Choose one Theory and Fundamentals of Coaching course:

HPER 22481	Theory and Fundamentals of Coaching Soccer	2
HPER 22482	Theory and Fundamentals of Coaching Baseball	2
HPER 22483	Theory and Fundamentals of Coaching Track and Field	2
HPER 22484	Theory and Fundamentals of Coaching Basketball	2
HPER 22485	Theory and Fundamentals of Coaching Football	2
HPER 22486	Theory and Fundamentals of Coaching Volleyball	2

Choose one Officiating class:

HPER 22281	Officiating Soccer	1
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HPER 22282	Officiating Baseball and Softball	1
HPER 22283	Officiating Track and Field	1
HPER 22284	Officiating Basketball	1
HPER 22285	Officiating Football	1
HPER 22286	Officiating Volleyball	1
HPER 22287	Officiating Wrestling	1

Three hours from the following (3):

MMED 20150	Journalism Practicum (Yearbook)	1
MMED 20151	Journalism Practicum (Newspaper)	1
MMED 20215	Practicum in Radio	1
MMED 20216	Practicum in Television	1
MMED 20322	Advanced Practicum in Radio	2
MMED 20326	Advanced Practicum in Television	2
MMED 20350	Advanced Journalism Practicum (Yearbook)	2
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
Subtotal: 55		

Advertising Major, 61 hours: B.S.—No Minor Required**CIP: 090903****Requirements****The Northwest Core (48-52 hours)**

Must include the following:

ECON 52130	Survey of Economics	3
	OR	
ECON 52150	Principles of Macroeconomics	3
MATH 17114	General Statistics	3

Required Courses

MMED 20130	Professional Media Writing	3
MMED 20151	Journalism Practicum (Newspaper)	1
MMED 20230	Introduction to Advertising	3
MMED 20243	Media Design	3
MMED 20304	Advertising Case Studies	3
MMED 20321	Media Planning and Sales	3
MMED 20333	Social Media Strategies	3
MMED 20343	Advanced Media Design	3
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
MMED 20416	Senior Seminar	1
MMED 20428	Creative Concepts in Advertising	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MKTG 55332	Promotion	3
MKTG 55333	Consumer Behavior	3
MKTG 55430	Sales and Sales Management	3
MKTG 55432	Marketing Research	3
MKTG 55438	International Business	3
	OR	
MMED 20450	Mass Communication Study Abroad	1 to 6

Total Credit Hours: 61

Interactive Digital Media Comprehensive Major, 61 hours: B.S.—No Minor Required

CIP: 110801

This is an interdisciplinary major in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems and the School of Communication and Mass Media. Three concentrations are available for this major: Computer Science Programming (Computer Science and Information Systems), New Media (Communication and Mass Media) and Visual Imaging (Fine and Performing Arts).

This major requires CSIS 44130 Computers and Information Technology as a prerequisite course as required by course descriptions. Students, therefore, should take this course for their Digital Literacy Northwest Core Requirement.

New Media Concentration

The Northwest Core (48-52 hours)

Recommended:

CSIS 44130	Computers and Information Technology	3
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Required Core Courses

ART 13191	Introduction to Design	3
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ART 13207	Digital Photography	3
	OR	

MMED 20355	Photojournalism	3
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ART 13292	Computer Graphics I	3
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ART 13294	Typography I	3
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MMED 20120	Introduction to Mass Media	3
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MMED 20243	Media Design	3
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MMED 20303	Introduction to Web Publishing	3
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MMED 20314	Communication Law and Ethics	3
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CSIS 44144	Web Development I	3
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CSIS 44334	Web Development II	3
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CSIS 44335	Script Programming	3
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MKTG 55330	Principles of Marketing	3
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Required Courses for New Media Concentration:

MMED 20110	Fundamentals of Electronic Media Production	3
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MMED 20130	Professional Media Writing	3
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MMED 20150	Journalism Practicum (Yearbook)	1
	OR	

MMED 20151	Journalism Practicum (Newspaper)	1
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MMED 20230	Introduction to Advertising	3
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MMED 20333	Social Media Strategies	3
	OR	

MMED 20452	Internship	1 to 3
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MMED 20334	Multimedia Production	3
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MMED 20343	Advanced Media Design	3
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MMED 20354	Online Magazine Practicum	1
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MMED 20409	Media Business and Entrepreneurship	3
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MMED 20416	Senior Seminar	1
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Choose one of the following courses:

MMED 20150	Journalism Practicum (Yearbook)	1
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MMED 20151	Journalism Practicum (Newspaper)	1
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MMED 20350	Advanced Journalism Practicum (Yearbook)	2
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
MMED 20450	Mass Communication Study Abroad	1 to 6
MMED 20452	Internship	1 to 3
		Subtotal: 61

Concentration in Computer Science Programming

see the School of Computer Science and Information Systems (p. 255)

Concentration in Visual Imaging

see the Department of Fine and Performing Arts (p. 104)

Broadcasting Minor, 24 hours

CIP: 090701

Requirements

Required Courses

MMED 20111	Introduction to Broadcast Operations	3
MMED 20120	Introduction to Mass Media	3
MMED 20220	Media Literacy	3
MMED 20224	Introduction to Audio	3
MMED 20225	Video Production	3
MMED 20314	Communication Law and Ethics	3
MMED 20320	Theories of Mass Communication	3
MMED 20230	Introduction to Advertising OR	3
MMED 20304	Advertising Case Studies	3

Total Credit Hours: 24

Journalism Minor, 24 hours

CIP: 090401

Requirements

Required Courses

MMED 20120	Introduction to Mass Media	3
MMED 20130	Professional Media Writing	3
MMED 20150	Journalism Practicum (Yearbook) OR	1
MMED 20151	Journalism Practicum (Newspaper)	1
MMED 20227	Reporting	3
MMED 20243	Media Design	3
MMED 20314	Communication Law and Ethics	3
MMED 20320	Theories of Mass Communication	3
MMED 20350	Advanced Journalism Practicum (Yearbook) OR	2
MMED 20351	Advanced Journalism Practicum (Newspaper)	2
MMED 20352	Copy Editing	3

Total Credit Hours: 24

Advertising Minor, 24 hours

CIP: 090903

Requirements

Required Courses

MMED 20130	Professional Media Writing	3
MMED 20230	Introduction to Advertising	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
MMED 20304	Advertising Case Studies	3
MMED 20314	Communication Law and Ethics	3
MMED 20321	Media Planning and Sales	3
MMED 20333	Social Media Strategies	3

Total Credit Hours: 24

Interactive Digital Media Minor, 24 hours

CIP: 110801

This is an interdisciplinary minor in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems, and the School of Communication and Mass Media.

This minor requires CSIS 44130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Requirements

Required Courses

ART 13191	Introduction to Design	3
ART 13292	Computer Graphics I	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3

Electives (6):

(Select any six hours from the following):

ART 13120	Drawing	3
ART 13207	Digital Photography	3
MMED 20334	Multimedia Production	3
CSIS 44141	Computer Programming I	3
CSIS 44335	Script Programming	3

Total Credit Hours: 24

School of Computer Science and Information Systems

Director: Carol Spradling

Faculty: Joni Adkins, Charles Badami, Ajay Bandi, Scott Bell, Tanmay Bhowmik, Denise Case, Cari Cline, Nathan Eloie, Douglas Hawley, Charles Hoot, Diana Linville, Michael Rogers, Matthew Schieber, Dong Si, Roger VonHolzen, Dennis Wong, Nancy Zeliff

Statement of Mission

The mission of the School of Computer Science and Information Systems is to provide programs through which students learn to solve problems and gain professional competence in the areas of computer science, and information systems. In addition to courses supporting our majors, we offer general education and service courses that reflect the pivotal role of computer science and information systems in all disciplines. The goal of each major is to provide a sufficiently focused curriculum to enable each student to compete successfully in the job market, while also providing sufficient breadth to facilitate lifelong learning, whether that learning continues through formal graduate study or on-the-job experiences. Each major offers the student opportunities to obtain thorough knowledge of the field of study, develop the professional competencies to communicate that knowledge, and acquire a value system to make sound decisions regarding the issues that confront professionals in the work place.

Degree Programs

The School of Computer Science and Information Systems offers programs leading to the Bachelor of Science degree in the areas of computer science, interactive digital media, management information systems, and business technology. For students interested in teaching business and marketing, in grades 9-12, the school offers the Bachelor of Science in Education degree with a major in business education and a minor in marketing education. For students interested in teaching business, in grades 5-9, the school offers a minor in middle school business. In addition, there are minors in accounting information systems, business education (as well as non-degree business technology and information systems programs), computer applications, computer networking, computer science, data management, interactive digital media, and systems management.

The focus of the computer science major is software design and implementation. The program also provides a solid background in the fundamental principles of computer networks, computer organization, database systems, operating systems, and programming languages.

Interactive digital media students will possess cross-disciplinary knowledge and skills in areas that deal with visual aesthetic understanding and communication, integrated with technological knowledge. Students in the computer science programming concentration will design and implement computer programs, and explore the additional topics of computer organization, networking, database development, and other computer technologies.

Students in the management information systems program develop a solid, interrelated combination of business knowledge and applied computer technology skills. This combination makes graduates suited for a variety of information technology careers.

Business technology and business education students develop technology and computer-related skills as well as interpersonal, decision making, and analytical skills. Graduates will effectively assist organizations with business, computer, and technology operations. Additionally, education majors learn to motivate students to develop these same skills and attributes.

In all of these programs, students learn fundamental concepts while engaging in activities similar to those encountered in the workplace. Small classes taught by full-time faculty using

active learning instructional paradigms focus on the student's learning process, with the teacher's role that of guide, facilitator and mentor.

All of these programs are supported by a wide variety of computing facilities ranging from local area networks of microcomputers to campus-wide access to an international network of computing services.

Test-Out Policy

Undergraduate students may test out of certain lower division courses in Computer Science/Information Systems. Examinations are available each trimester. See the School Director for courses that are available for test-out.

Senior Assessment

For each of the majors in the School of Computer Science and Information Systems, a senior-level major field assessment must be completed by each student.

Non-Degree Programs

The School of Computer Science and Information Systems offers a two-year business technology program. On the successful completion of a program, the student is awarded a certificate. Unless otherwise noted, all courses in this program are fully accredited and may be applied to a degree program should a student later decide to complete a college degree. A student must maintain a "C" average. All non-degree programs in the School of Computer Science and Information Systems require CSIS 44130 Computers and Information Technology, as a prerequisite course as required by course descriptions.

Computer Science and Information Systems Advanced Standing Requirements

Computer Science

1. Attain at least a cumulative 2.00 GPA and a 2.00 GPA in all major courses
2. Attain a score at level 1 or higher on all areas of the Academic Profile
3. Attain at least a grade of "C" or better in each of the courses listed below:

MATH 17215	Discrete Mathematics	3
CSIS 44130	Computers and Information Technology	3
CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44242	Data Structures	3

Management Information Systems

1. Attain at least a cumulative 2.00 GPA and a 2.00 GPA in all major courses
2. Attain a score at level 1 or higher on all areas of the Academic Profile

Business Technology

1. Attain at least a cumulative 2.00 GPA and a 2.00 GPA in all major courses
2. Attain a score at level 1 or higher on all areas of the Academic Profile
3. Receive a grade of "C" or better for each required course taken in the area of CS/IS

Business Education

1. Meet the requirements for Admittance to Teacher Education

See Admittance to Teacher Education (p. 268).

2. Receive a "C" or better for each required course taken in the area of CS/IS

Interactive Digital Media-Computer Science

1. Attain at least a cumulative 2.00 GPA and a 2.00 GPA in all major courses

2. Attain a score of level 1 or higher on all areas of the Academic Profile

Students who have met this Advanced Standing requirement are official members of the School and can pursue any major course, assuming the prerequisites have been met.

NOTE: Students who have not successfully achieved Advanced Standing prior to becoming an academic senior (90 or more academic credit hours) will be prohibited from enrolling in any major course until they have achieved Advanced Standing. In exceptional cases, a student not meeting the “go-hour rule” may appeal to the School’s Advanced Standing Committee.

Computer Science and Information Systems / 44

Computer Science Comprehensive Major, 62-65 hours: B.S.—No Minor Required

CIP: 110101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44101	Foundations of Computing	3
MATH 17117	Precalculus	4
	OR	
MATH 17118	College Algebra	3

Note: MATH 17117 is the Northwest Core requirement for Math Option A. MATH 17118 is the Northwest Core requirement for Math Option B.

Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44242	Data Structures	3
CSIS 44296	Professional Development Seminar	3
CSIS 44345	Computer Organization	3
CSIS 44349	A Survey of Algorithms	3
CSIS 44356	Network Fundamentals	3
CSIS 44460	Database Systems	3
CSIS 44525	Theory and Implementation of Programming Languages	3
CSIS 44550	Operating Systems	3
CSIS 44561	Software Engineering Principles	3
CSIS 44562	Software Engineering Practice	3

Emphasis Areas

Choose one or more of the following emphases:

Data Management Emphasis

CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44564	Design of Data Intensive Systems	3
CSIS 44566	Applied Data Analytics	3

Mobile Computing Emphasis

CSIS 44443	Mobile Computing-iOS	3
CSIS 44444	Mobile Computing-Android	3
CSIS 44451	Advanced Topics in Mobile Computing	3

Information Assurance and Security Emphasis

CSIS 44359	Secure System Administration	3
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CSIS 44457	Applied Cryptography	3
CSIS 44555	Network Security	3

Core Computer Science Emphasis

Choose 9 hours from the following courses:

CSIS 44325	Programming Languages	3
CSIS 44351	Foundations of Game Development	3
CSIS 44443	Mobile Computing-iOS	3
CSIS 44444	Mobile Computing-Android	3
CSIS 44451	Advanced Topics in Mobile Computing	3
CSIS 44457	Applied Cryptography	3
CSIS 44555	Network Security	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44563	Developing Web Applications and Services	3
CSIS 44564	Design of Data Intensive Systems	3
CSIS 44566	Applied Data Analytics	3
CSIS 44359	Secure System Administration	3

Science Options

PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1
	AND	
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1
	OR	
PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
	AND	
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1
	OR	
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
	AND	
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1

PHYS 25110, PHYS 25112, PHYS 25120, PHYS 25230, CHEM 24114 and CHEM 24115 may not be used to fulfill any Northwest Core Requirement or any associated laboratories that are required.

Math Option A

MATH 17117	Precalculus	4
MATH 17215	Discrete Mathematics	3
MATH 17120	Calculus I	4
MATH 17230	Probability and Statistics	3
	OR	
MATH 17114	General Statistics	3

MATH 17117 is the Directed Northwest Core requirement for mathematical reasoning.

Math Option B

MATH 17118	College Algebra	3
MATH 17215	Discrete Mathematics	3
MATH 17114	General Statistics	3
MATH 17316	Linear Statistical Models I	3

MATH 17118 is the Directed Northwest Core requirement for mathematical reasoning.

Total credits does not include Directed Northwest Core Requirements.

Note: All required and elective computer science courses must be passed with a grade of “C” or better. A major field assessment is required of all senior year students majoring in computer science.

Total Credit Hours: 62-65

Data Sciences and Informatics Comprehensive Major-Computer Science Emphasis, 67 hours: B.S.—No Minor Required

CIP: 279999

Requirements

The Northwest Core (48-52 hours)

Core Requirements for a Major in Data Sciences and Informatics

Required Courses

MATH 17120	Calculus I	4
MATH 17215	Discrete Mathematics	3
MATH 17316	Linear Statistical Models I	3
MATH 17318	Linear Statistical Models II	3
MATH 17356	Data Mining with Applications to Business and Sciences	3
CSIS 44141	Computer Programming I	3
CSIS 44155	Introduction to Data Science and Data Mining	3
CSIS 44241	Computer Programming II	3
CSIS 44413	Visualization	3
CSIS 44317	Management Information Systems	3
CSIS 44460	Database Systems	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
PHIL 39275	Professional Ethics	3
ECON 52150	Principles of Macroeconomics	3

Note: If MATH 17120 is also used to fulfill a Northwest Core requirement, the hours may be counted only once toward the 124 required for graduation.

PHIL 39275 and ECON 52150 fulfill Northwest Core Requirements.

CSIS 44130 is a prerequisite for CSIS 44141 and fulfills a Northwest Core Requirement.

MATH 17114 is a prerequisite for CSIS 44155 and fulfills a Northwest Core Requirement.

Computer Science (21)

Required Courses

CSIS 44242	Data Structures	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44411	Systems Analysis and Design	3
CSIS 44418	Information Technology Project Management	3
CSIS 44563	Developing Web Applications and Services	3
CSIS 44517	Big Data	3
CSIS 44520	Web Mining	3

Total Credit Hours: 67

Interactive Digital Media Comprehensive Major: 63 hours, B.S.—No Minor Required

CIP: 110801

Computer Science Programming Concentration

This is an interdisciplinary major in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems, and the School of Communication and Mass Media. Three concentrations are available for this major: Computer Science Programming (Computer Science and Information Systems), New Media (Communication and Mass Media), and Visual Imaging (Fine and Performing Arts).

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44101	Foundations of Computing	3
Required Core Courses		
ART 13191	Introduction to Design	3
ART 13207	Digital Photography	3
MMED 20355	OR Photojournalism	3
ART 13292	Computer Graphics I	3
ART 13294	Typography I	3
MMED 20120	Introduction to Mass Media	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
MMED 20314	Communication Law and Ethics	3
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3
CSIS 44335	Script Programming	3
MKTG 55330	Principles of Marketing	3

Required Courses for Concentration in Computer Science Programming:

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44242	Data Structures	3
CSIS 44296	Professional Development Seminar	3
CSIS 44345	Computer Organization	3
CSIS 44356	Network Fundamentals	3
CSIS 44460	Database Systems	3
CSIS 44563	Developing Web Applications and Services	3

Choose one from the following electives:

CSIS 44349	A Survey of Algorithms	3
CSIS 44525	Theory and Implementation of Programming Languages	3
CSIS 44443	Mobile Computing-iOS	3
CSIS 44444	Mobile Computing-Android	3
CSIS 44550	Operating Systems	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44561	Software Engineering Principles	3
CSIS 44590	Current Topics in Computer Science	1 to 3

NOTE: All required and elective computer science courses must be passed with a grade of "C" or better.

Concentration in New Media

see the School of Communication and Mass Media (p. 248)

Concentration in Visual Imaging

see the Department of Fine and Performing Arts (p. 104)

Total Credit Hours: 63

Management Information Systems Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 521201

Students choosing a Comprehensive Major in Management Information Systems must take the Common Professional Component courses (p. 222) plus fulfill the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44356	Network Fundamentals	3
CSIS 44411	Systems Analysis and Design	3
CSIS 44418	Information Technology Project Management	3
CSIS 44460	Database Systems	3

Choose one from the following electives:

CSIS 44242	Data Structures	3
CSIS 44334	Web Development II	3
CSIS 44358	CCNA: Routing Protocols and Concepts	3
CSIS 44555	Network Security	3
CSIS 44560	Advanced Topics in Database Systems	3
CSIS 44563	Developing Web Applications and Services	3

Note: Grade Requirement: Students must earn a grade of “C” or better in each of the CS and IS and Common Professional Component courses in this major. A major field assessment is required of all senior year students majoring in MIS.

Total Credit Hours: 63

This program is an ACBSP accredited program.

Business Technology Comprehensive Major, 63 hours: B.S.—No Minor Required

CIP: 520401

Students choosing a Comprehensive Major in Business Technology must take the Common Professional Component courses (p. 222) plus fulfill the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Required Courses

CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
	Approved Electives	6

Choose one of the following emphasis areas for six hours (6):

Interactive Digital Media Emphasis

CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3

Management Emphasis

MGMT 54314	Human Resource Management	3
MGMT 54316	Organizational Behavior and Theory	3

Networking Emphasis

CSIS 44356	Network Fundamentals	3
CSIS 44555	Network Security	3

Total Credit Hours: 63

This program is an ACBSP accredited program.

**Business Education Major, 48 hours: B.S.Ed., Secondary Program—
No Minor Required (Certifies Grades 9-12)**

CIP: 131303

Students choosing a Major in Business Education must take the Professional Education Requirements (p. 279), plus fulfill the following major requirements:

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

ECON 52150	Principles of Macroeconomics	3
CSIS 44130	Computers and Information Technology	3

Required Courses

MATH 17114	General Statistics	3
	OR	
MATH 17118	College Algebra	3
ECON 52151	Principles of Microeconomics	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MKTG 55438	International Business	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
CSIS 44510	Coordination of Cooperative Education	3
CSIS 44584	Implementing Business and Marketing Education Programs	3

Choose 6 hours from:

CSIS 44141	Computer Programming I	3
CSIS 44144	Web Development I	3
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44317	Management Information Systems	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1

CSIS 44580 Methods of Teaching Business and Marketing is the required subject field methods course.

Total Credit Hours: 48

Computer Science Minor, 21 hours

CIP: 110101

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44242	Data Structures	3
CSIS 44345	Computer Organization	3

NOTE: CSIS 44241 has a prerequisite of MATH 17110 or MATH 17 118, and CSIS 44345 has a prerequisite of one trimester of chemistry, physics or physical sciences. Students electing to take this minor should choose their general studies math and science courses to satisfy these prerequisites.

Choose at least 9 hours from the following electives (9):

CSIS 44149	Scientific Computing	3
CSIS 44325	Programming Languages	3
CSIS 44349	A Survey of Algorithms	3
CSIS 44356	Network Fundamentals	3
CSIS 44460	Database Systems	3
CSIS 44525	Theory and Implementation of Programming Languages	3
CSIS 44443	Mobile Computing-iOS	3
CSIS 44444	Mobile Computing-Android	3
CSIS 44550	Operating Systems	3
CSIS 44561	Software Engineering Principles	3
CSIS 44540	Visual Application Development	3
CSIS 44590	Current Topics in Computer Science	1 to 3

Note: Grade Requirement: Students must earn a grade of "C" or better in each of the Computer Science courses in the 21-hour minor.

Total Credit Hours: 21

Computer Networking Minor, 21 hours

CIP: 11090

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

CSIS 44312	Information Technology Hardware/Software OR	3
CSIS 44345	Computer Organization	3
CSIS 44356	Network Fundamentals	3
CSIS 44358	CCNA: Routing Protocols and Concepts	3
CSIS 44456	CCNA: LAN Switching and Wireless	3
CSIS 44458	CCNA: Accessing the Wide Area Network	3
CSIS 44555	Network Security	3

Select an additional three hours from the following or advisor approved elective (3):

CSIS 44140	Visual Basic Application Programming	3
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CSIS 44141	Computer Programming I	3
CSIS 44334	Web Development II	3
CSIS 44460	Database Systems	3
CSIS 44540	Visual Application Development	3
CSIS 44550	Operating Systems	3
CSIS 44563	Developing Web Applications and Services	3

Note: Grade Requirement: Students must earn a grade of “C” or better in each of the Computer Science courses in the 21-hour minor.

Total Credit Hours: 21

Business Education Minor, 36 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)—See Professional Education Requirements

CIP: 131303

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
ECON 52150	Principles of Macroeconomics	3
ECON 52151	Principles of Microeconomics	3
FIN 53311	Business Law I	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
CSIS 44510	Coordination of Cooperative Education	3
CSIS 44584	Implementing Business and Marketing Education Programs	3

Total Credit Hours: 36

36 hours is minimum required for initial business education certification as prescribed by DESE.

Marketing and Cooperative Education Minor, 36 hours

CIP: 131310

Requirements

Required Courses

ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
CSIS 44510	Coordination of Cooperative Education	3
CSIS 44584	Implementing Business and Marketing Education Programs	3
ECON 52150	Principles of Macroeconomics	3
ECON 52151	Principles of Microeconomics	3
FIN 53324	Fundamentals of Business Finance	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MKTG 55438	International Business	3

Choose six hours from the following (6):

MKTG 55331	Retailing	3
MKTG 55332	Promotion	3
MKTG 55333	Consumer Behavior	3
MKTG 55430	Sales and Sales Management	3
MKTG 55431	Logistics Management	3

Total Credit Hours: 36**Middle School Endorsement Certification—Business Education, 21 hours, Grades 5-9****CIP: 131303**

Certifies grades 5-9 when completed with the Middle School Major

Requirements**The Northwest Core (48-52 hours)**

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

CSIS 44144	Web Development I	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
ECON 52130	Survey of Economics	3
FIN 53120	Personal Money Management	3
	CSIS/Business Advisor Approved Elective	3

Total Credit Hours: 21**Data Management Minor, 21 hours****CIP: 110802****Requirements****The Northwest Core (48-52 hours)**

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44241	Computer Programming II	3
CSIS 44346	Database Applications	1
CSIS 44460	Database Systems	3
CSIS 44560	Advanced Topics in Database Systems	3

Choose six hours of electives (6):

CSIS 44242	Data Structures	3
CSIS 44411	Systems Analysis and Design	3
CSIS 44540	Visual Application Development	3
CSIS 44561	Software Engineering Principles	3
CSIS 44563	Developing Web Applications and Services	3

NOTES: 1) CSIS 44241 has a prerequisite of MATH 17110, MATH 17114 or MATH 17118. 2) CSIS 44411 has a prerequisite of MGMT 54313 and CSIS 44317. 3) Grade Requirement: Students must earn a grade of "C" or better in each of the Computer Science courses in the 21-hour minor.

Total Credit Hours: 21

Computer Applications Minor, 24 hours

CIP: 110899

Requirements

Required Courses

CSIS 44130	Computers and Information Technology	3
CSIS 44141	Computer Programming I	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44312	Information Technology Hardware/Software	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44144	Web Development I	3
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1

Select at least three hours from the following electives (3):

CSIS 44241	Computer Programming II	3
CSIS 44334	Web Development II	3
CSIS 44356	Network Fundamentals	3

NOTE: Students with a Comprehensive Major in Business Technology are not permitted to minor in Computer Applications.

Total Credit Hours: 24

Systems Management Minor, 24 hours

CIP: 521201

Requirements

Required Courses

CSIS 44130	Computers and Information Technology	3
CSIS 44140	Visual Basic Application Programming	3
	OR	
CSIS 44141	Computer Programming I	3
CSIS 44317	Management Information Systems	3
CSIS 44411	Systems Analysis and Design	3
CSIS 44418	Information Technology Project Management	3
ACCT 51201	Accounting I	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3

Total Credit Hours: 24

Note: Students with a comprehensive major in Management Information Systems are not permitted to minor in Systems Management.

Accounting Information Systems Minor, 21 hours

This is an interdisciplinary minor in conjunction with the School of Computer Science and Information Systems and the Booth School of Business.

Requirements

Required Courses

CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44460	Database Systems	3
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
ACCT 51306	Intermediate Accounting I	3
ACCT 51308	Accounting Information Systems	3

Total Credit Hours: 21

Interactive Digital Media Minor, 24 hours

CIP: 110801

This is an interdisciplinary minor in conjunction with the Department of Fine and Performing Arts, the School of Computer Science and Information Systems, and the School of Communication and Mass Media.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

ART 13191	Introduction to Design	3
ART 13292	Computer Graphics I	3
MMED 20243	Media Design	3
MMED 20303	Introduction to Web Publishing	3
CSIS 44144	Web Development I	3
CSIS 44334	Web Development II	3

Electives (6):

(Select any six hours from the following)

ART 13120	Drawing	3
ART 13207	Digital Photography	3
MMED 20334	Multimedia Production	3
CSIS 44141	Computer Programming I	3
CSIS 44335	Script Programming	3

Total Credit Hours: 24

Geographic Information Systems Minor, 28 hours

CIP: 450702

This is an interdisciplinary minor in conjunction with the School of Computer Science and Information Systems and Geography.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

CSIS 44130	Computers and Information Technology	3
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Required Courses

Geography

GEOG 32201	Maps and Map Interpretation	3
GEOG 32365	Geographic Information Systems	3

GEOG 32565	Advanced Geographic Information Systems	3
Computer Science		
CSIS 44140	Visual Basic Application Programming	3
CSIS 44141	Computer Programming I	3
CSIS 44241	Computer Programming II	3
CSIS 44346	Database Applications	1
CSIS 44460	Database Systems	3
Advisor-Approved Electives (6):		
GEOG 32362	Cartography	3
GEOG 32363	Remote Sensing	3
GEOG 32562	Digital Cartography and Geovisualization	3
GEOG 32563	Digital Image Processing	3
CSIS 44242	Data Structures	3
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44540	Visual Application Development	3
CSIS 44590	Current Topics in Computer Science	1 to 3

Total Credit Hours: 28

Business Technology Certificate, 60 hours

CIP: 520499

The School of Computer Science and Information Systems offers a two-year business technology program. On the successful completion of the program, the student is awarded a certificate. Unless otherwise noted, all courses in this program are fully accredited and may be applied to a degree program should a student later decide to complete a college degree.

Requirements

Required Courses

INCO 77101	University Seminar	1
PSYC 08103	General Psychology	3
ENGL 10111	Composition I: Academic Literacies	3
	AND	
ENGL 10112	Composition II: Writing as Engagement	3
	OR	
	ACT English credit	
	AND	
ENGL 10115	Accelerated Composition	3
COM 29102	Fundamentals of Oral Communication	3
CSIS 44130	Computers and Information Technology	3
CSIS 44144	Web Development I	3
CSIS 44211	Spreadsheet Applications	1
CSIS 44212	Advanced Spreadsheets and Charting	1
CSIS 44320	Advanced Word Processing	1
CSIS 44330	Presentation Graphics	1
CSIS 44340	Digital Media	1
CSIS 44343	Digital Communications	3
CSIS 44346	Database Applications	1
ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
FIN 53311	Business Law I	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
	Advisor-approved electives to total 60 hours	17

Required courses plus advisor-approved electives to total 60 hours with a 2.00 grade point average.

Total Credit Hours: 60

School of Education

“Teaching is our passion.....Learning is our profession.”

Dean: Tim Wall, Director, Teacher Education

Assistant Chairperson:

Director, Horace Mann School: Sandy Seipel

Director, Early Childhood Center: Cindy Scarbrough

Faculty, Professional Education Unit: Robyn Akins, Kristina Alexander, Jill Baker, Summer Christensen, Cathy Dennis, Carole Edmonds, Shantel Farnan, Nancy Foley, Virgil Freeman, Max Fridell, Merlene Gilb, Dan Gordon, Nissa Ingraham, David Kiene, Suzanne Nuttall, Pradnya Patet, Gregory Rich, Victoria Seeger, Shirley Steffens, Patricia Thompson, Tim Wall, Sue Wood

Faculty, Horace Mann School: Nancy Farlow, Brandy Haughey, Laura King, Andrea Mason, Catherine McAdams, LeDonna McIntosh, Gina McNeese, Cathi Schwienebart, Mary Shields, Sarah Winans

Early Childhood Center Personnel: Meghan Sheil, Michelle Vaught, Erika Yocom

The School of Education includes the Professional Education Unit; the Horace Mann Laboratory School; and the Phyllis and Richard Leet Center for Children and Families.

The School contributes to all facets of education within the University by providing courses which assist students in fulfillment of the Northwest Core courses; offerings leading to the completion of B.S.Ed. degrees; and elective coursework. The Professional Education Unit offers undergraduate programs in elementary education, early childhood education, middle school education, secondary education, and special education.

The professional preparation programs in the School of Education and the Professional Education Unit are accredited by the Missouri State Board of Education (2014) and the National Council for Accreditation of Teacher Education (NCATE).

Information regarding program advisement, requirements, and certification may be obtained from the following people:

Program	Coordinator
Early Childhood Education	Pradnya Patet
Elementary Education	Sue Wood
Middle School	Patricia Thompson
Secondary Education	Patricia Thompson
Special Education	Shantel Farnan

Vision Statement

The vision of the School of Education is to provide highly competent professionals who are lifelong learners, reflective thinkers and ethical leaders exemplifying the ideas of literacy, scholarship, and social justice in a diverse and ever-changing world.

Mission Statement

The mission of the School of Education is to create learning communities in which students and professionals develop partnerships with families, communities, schools, businesses, and other

public agencies to assist students in acquiring knowledge, skills, and values critical to a democratic society.

The goals of the School are to:

- Provide students a strong knowledge base in general education.
- Provide opportunities for specialization through majors and minors.
- Provide opportunities to develop values and ethics within the academic discipline.
- Provide opportunities for students and faculty to collaborate in research.
- Provide services to the community and surrounding region.
- Provide opportunities for continuing and graduate education.

Vision Statement for the Professional Education Unit

The Northwest Missouri State University Professional Education Unit prepares highly effective, ethical, professional educators who possess the knowledge, skills, and professional dispositions in order to embrace the responsibility for the learning of all children in a diverse and dynamic society.

Mission Statement for the Professional Education Unit

The Northwest Missouri State University Professional Education Unit will be a catalyst for education excellence by preparing PreK-12 professional educators who apply best practices to positively impact learning.

Our Pledge:

Based upon our vision and mission, the Northwest Missouri State University Professional Education Unit serves education candidates as our primary focus in order to develop professionals who:

- Possess the requisite level of knowledge, skills, and professional dispositions;
- Model integrity and professionalism;
- Promote social justice, the inherent worth of each individual, and the ideals of a democratic society;
- Facilitate an educational environment that embraces diversity;
- Collaborate and build partnerships with educational professionals, students, parents, communities, and other social agencies; and
- Use technology in a meaningful, purposeful, and authentic manner.

Continuous Improvement and Program Quality

The Professional Educational Unit (PEU) organizational structure is designed to maximize input from and empowerment of the entire education community. Cross-functional teams of college faculty, PreK-12 faculty, and students function to ensure continuous study and improvement of programs and processes around issues of importance to the college, such as technology integration, a curriculum representative of our nation's diversity and consistent evaluation of assessment data on program performance.

One source of input for program improvement is gathered from Comment Cards available online at the Northwest website for use in bringing issues of importance to the attention of the appropriate administrator. Students may use these cards to share comments, suggestions or

complaints regarding an office, department, program or activity in the University community. All Comment Cards relating to teacher preparation are compiled for reporting of issues and opportunities for program or process improvements to the Council on Teacher Education.

Teacher Education Resources

Professional Education	Cheryl Malm, Assistant Director
Educational Field Experiences	Gregory Rich, Director
Horace Mann School	Sandy Seipel, Principal
Teacher Certification	Kim Hullinger, Certification Officer
Teacher Education Student Services (TESS)	Amy Wilson, Coordinator
Alternative Certification	Kim Hullinger, Coordinator
Phyllis and Richard Leet Center for Children and Families	Cindy Scarbrough, Director
Professional Education Unit Assessment	Michael McBride
Regional Professional Development Center	Rebecca Baldwin, Director

Requirements

Changes to programs during this catalog cycle may be made related to changes in certification requirements and/or program changes approved by the Missouri Department of Elementary and Secondary Education.

All education majors are required to purchase the Tk20 assessment package. Students who have not purchased the subscription will not be admitted into the Professional Education Unit.

Teacher Education General Information

Admittance to Teacher Education

All students desiring to complete teacher certification requirements must make application to become officially admitted to the professional education program through the satisfactory completion of the "Application to Professional Education Program" form. This form may be obtained from the Teacher Education Student Services (TESS) Office, Administration Building, Room 348.

Application for admission to the professional education program should be initiated in the trimester following the one in which the eligible student completes 45 hours of academic credit or upon transfer of 45 hours of credit acceptable to this institution. All students desiring to become teacher candidates must demonstrate basic educational competencies prior to formal admission into the professional teacher education program. To do this applicants must:

1. Provide evidence (score) of completion of the ACT or SAT by having scores submitted to the University.
2. Successfully complete COM 29102 Fundamentals of Oral Communication, with a grade of "C" or better.
3. Successfully complete EDCI 62211 Observation and Activity in the Elementary School for elementary education programs; EDUC 61262 Middle School Teaching Practicum I for middle school programs; EDUC 61260 Secondary Teaching Practicum I for secondary education programs; EDUC 61260 for elementary-secondary programs; EDCI 62211 or EDUC 61262 or EDUC 61260 for special education programs; HPER 22260 Observation and Practicum I in Physical Education for the Physical Education program.
4. Complete at least 45 semester hours of coursework and achieve a minimum major GPA and minimum GPA in education coursework with no more than seven hours below a "C" for all courses used to meet general education requirements. Reference minimum GPA in the Professional Education Handbook.

5. Complete two composition courses or one honors composition, a math course (MATH 17171 for Elementary Education majors), COM 29102 Fundamentals of Oral Communication, and an information technology competency course.
6. Achieve the minimum MoGEA (English, Mathematics, Science, Social Studies, Writing Sample) scores identified in the Professional Education Handbook.
7. Register for admission to the Professional Education Program at the Teacher Education Student Services (TESS) Office in Administration Building, Room 348, in accordance with the application procedure. This form will not be issued until all the above criteria have been met.
8. Take completed form to approved Professional Education advisor for signature and assignment of anticipated student teaching blocks or professional trimester.
9. Return signed form to the TESS Office for final approval by the TESS Office. A copy of the approved form will be sent to the student and advisor. Any changes in major or anticipated student teaching block/professional trimester must be submitted to and approved by the TESS Office once admission has been obtained.

Note: Students who do not meet the admissions standards listed above may qualify for “alternative” or “probationary” admission.

Alternative Admissions: The alternative admissions process is designed for applicants from a disadvantaged background (as provided in CBHE policy). In acting on such applications the Teacher Education Admissions Committee (TEAC) looks for evidence of extraordinary circumstances that are beyond the control of the student, and for specific data (leading indicators) demonstrating ability to succeed in teacher education programming. The student must outline a credible plan by which they will overcome the particular academic challenge(s).

Probationary Admissions: Students seeking admission to the Teacher Education Program who fail to meet the minimum score required for any MoGEA subsection(s) for a third time, may not continue in the teacher education sequence. A student, who continues to be convinced that he/she can be successful in Teacher Education, should consult their academic advisor and may request a meeting with the TEAC to discuss probationary status. The student must complete the Application for Probationary Admission form, providing data-based reasons why they believe they can ultimately be successful. In granting probationary status, the TEAC may identify support processes, short courses, or other means by which the student can improve performance in the area(s) of deficiency. If a student is granted probationary admissions, he/she must meet admissions requirement within one trimester.

Students with handicapping conditions which prevent valid test results from the MoGEA will be evaluated for basic educational competencies through appropriate testing instruments and/or procedures by psychometrists as designated and approved by the Council on Teacher Education.

Students must request testing arrangements to accommodate their special testing needs. Possible special arrangements include a large type edition of the MoGEA, extended time, readers, signers, scribes, magnifying equipment and others.

Students pursuing an undergraduate degree (B.A., B.S., or B.S.Ed.) who meet Northwest professional education program requirements or those who have earned other baccalaureate degrees and have filed an academic contract or an approved graduate program to complete teaching certification requirements and have been admitted to the professional education program will receive a Missouri State Board of Education and an NCATE recommendation for certification.

Advanced Standing Requirement

All teacher education candidates must be formally admitted to the teacher education program to be eligible to enroll and participate in the following upper-division courses:

Courses

EDUC 61360	Secondary Teaching Practicum II	1
EDUC 61461	School and Society	2 to 3
EDUC 61462	School and Society Seminar	1
EDUC 61520	Techniques of Classroom Management and Discipline	2
EDCI 62380	Diagnostic and Corrective Reading	2
EDCI 62384	Teaching Students in Cross Categorical Special Education: Academic/Behavioral	3
EDCI 62385	Teaching Cross Categorical Special Education: Academic/Behavioral, Secondary	3
EDCI 62386	Teaching Students in Cross Categorical Special Education: Functional/Physical	3
EDCI 62387	Teaching Students in Cross Categorical Special Education: Functional/Physical, Secondary	3
EDCI 62407	Elementary School Language Arts Practicum	1
EDCI 62410	Elementary School Social Studies	3
EDCI 62420	Content Teaching in Elementary Schools	3
EDCI 62430	Teaching Writing in Middle School	2
EDCI 62444	Practicum in Special Education: Cross Categorical	3
EDCI 62456	Practicum and Seminar in Elementary School Reading	3
EDCI 62470	Assessment in Special Education	3
EDCI 62471	Assessment in Special Education Lab	1
EDCI 62508	Transition/Career Education for Students with Disabilities	2
EDCI 62511	Middle School Curriculum, Methods and Practicum	3
EDCI 62531	Curriculum and Methods in Early Childhood	3
EDCI 62540	Behavior Management Techniques	3
EDCI 62541	Assessment and Early Intervention in Early Childhood	3
EDCI 62543	Practicum in Early Childhood	4
EDCI 62544	Practicum in Early Childhood Special Education	3
EDCI 62574	Teaching Math to Students with Disabilities	2

Middle School/Secondary Education Methods Courses

AGRI 03580	Methods in Teaching Agriculture	2
ART 13480	Methods in Secondary School Art	2
COM 29480	Methods of Teaching Speech/Theatre in the Secondary School	3
CSIS 44580	Methods of Teaching Business and Marketing	1 to 3
LANG 14480	Methods of Teaching a Modern Language	3
MATH 17580	Methods in Secondary School Mathematics	3
MATH 17582	Mathematical Methods for Middle School Teachers	3
MUS 19482	Methods in Secondary School Instrumental Music	2
MUS 19484	Methods in Secondary School Vocal Music	2
HPER 22480	Health Education Methods in the Secondary School	3
HPER 22580	Methods in Secondary Physical Education	3
SCED 28580	Methods in Secondary School Science	3
SCED 28582	Methods in Middle School Science	3
SOSC 36480	Methods in Secondary School Social Sciences	3

Directed Teaching (all areas)

Teacher Education Guidance Committee

This committee considers those professional education students who have deficiencies which are so serious that their success in the field of teaching would be in jeopardy. Such deficiencies may or may not relate to quantitative criteria.

The guidance committee is an ad hoc subcommittee of the Council on Teacher Education. Although the Council on Teacher Education has overall reviewing authority, this subcommittee, known as the Teacher Education Guidance Committee, develops and implements the necessary procedures. Committee members may include the assistant director of Teacher Education, field experiences representative, chairperson or director of the student's major studies area, the student's advisor, and faculty who have taught the student. These committee members are included since they possess relevant information about the student.

Any University faculty member may refer a student to the Teacher Education Guidance Committee. The chairperson of the Council on Teacher Education will then structure the ad hoc committee and arrange a meeting to which the student may be called to appear. The chairperson will then report the decision of the committee to the student.

The committee will take one of four courses of action in regard to a student in question:

1. No action; the student would continue in the Teacher Education Program.
2. Recommend remedial actions that the student must take, to be followed by further screening.
3. Recommend remedial action and suspension from the Teacher Education Program until the student has met said requirements of the committee.
4. Recommend that the student be terminated from the Teacher Education Program, in which case he or she would not be permitted to complete any program from this University leading to educator certification.

All students will have the right to appeal in person regarding decisions rendered by the Teacher Education Guidance Committee. The purpose of the appeal is not to provide a secondary hearing of a case already heard by the committee, but rather to insure that students have been able to present all information pertaining to their case and that proper protocols have been followed. Students should provide a basis for their appeal by submitting either new information (e.g. documentation from a doctor, counselor, or official) pertaining to their case, or evidence of error or bias on the part of the previous committee. The students must initiate the appeals process by contacting the Office of the Dean of the School of Education.

Directed Teaching

Prospective student teachers must attend an orientation session and make application for student teaching with the Director of Educational Field Experiences in the trimester immediately prior to the trimester in which student teaching is to be completed. The Director of Educational Field Experiences will establish a specific date for application each trimester. At the time of application, the student must secure the approval of the following persons: Registrar, major advisor (and minor advisor when appropriate), and TESS coordinator. The application form containing the approval route can be found in Tk20. An overall GPA and official admittance to the teacher education program are required (see “Admittance to Teacher Education” above). A minimum GPA is also required for all courses taken at Northwest, all courses taken in each of the applicant’s subject areas and all courses in the professional education sequence. Reference minimum GPA in the Professional Education Handbook.

Secondary and elementary-secondary program majors are required to successfully complete EDCI 62353; EDUC 61520, and EDUC 61461 in order to maintain eligibility to student teach. Elementary, middle school, secondary, and special education majors student teach an entire trimester. Students may not have a choice of time or location for the directed teaching experience. Students may suggest a location, however, final placement resides with the Director of Field Experiences.

Graduation Requirements

Students completing a teacher education program must complete as a part of their program a field experience in a diverse setting for a minimum of thirty (30) clock hours.

Teacher Education candidates must demonstrate their competence across the state’s MoSPE standards for teacher educators. This is accomplished through authentic assessments designated in the Professional Education Unit (PEU) assessment system.

Certification Exit Requirements

In addition to satisfying the respective program requirements, each candidate seeking initial certification must achieve the minimum GPA requirement set by the State Board of Education

to include: A minimum overall GPA; a minimum GPA in each of the certificate subject areas; and a minimum overall GPA and no grade lower than a “C” in professional education courses, i.e., those courses defined as foundations for teaching, teaching methods and techniques, and clinical experiences. Each candidate must also achieve a satisfactory score on the appropriate Pearson Content Exam. Reference minimum GPA in the Professional Education Handbook.

Certification

Students admitted to the Professional Education Program are subject to all prevailing academic and social regulations and policies of the University in addition to those specified for the various certificate program sequences. The Teacher Education candidate is also subject to any Missouri legislative action or State Board of Education policy that may become effective during the lifetime of this catalog. The candidate is responsible for meeting the requirements of endorsement area(s) at the time of application for an initial Missouri teaching certificate. In addition to the certificate requirements, the student must satisfy the degree requirements of the major department. The teacher education advisor in each department will guide the student in meeting all requirements. Additional information about certification is in the Professional Education Handbook and on the Northwest website at <http://www.nwmissouri.edu/education/peu/certification/index.htm>. For specific information regarding teacher certification, contact the Teacher Certification Officer.

The Missouri Department of Elementary and Secondary Education-Office of Educator Quality is working with a representative stakeholder group to redesign the standards for educator preparation including certification requirements. These changes and the implementation schedule will be communicated to students through individual advising sessions, meetings, and/or other university communications. If there are any questions or concerns, please contact the Missouri Department of Educator Preparation in the Office of Educator Quality (eqprep@dese.mo.gov).

Post-Degree Certification

Individuals who hold baccalaureate degrees from regionally-accredited institutions may elect to pursue their initial teaching certificate by completing our teacher preparation program. Candidates are subject to the requirements as provided in this catalog. Candidates are required to fulfill all the general education requirements for certification as designated by the state of Missouri.

Title II Reporting

Northwest annually reports to the United States Department of Education on the performance of its Teacher Education graduates. The report is public information and is contained in its entirety on the following website: <http://www.nwmissouri.edu/education/peu/reports.htm>.

Professional Education Unit

Education: Curriculum and Instruction / 62

Education B.S.

Completion of one of the following curricula, other University requirements and an overall grade point average identified in the Professional Education Handbook on a 4.00 scale qualifies the student to receive a Bachelor of Science in Education degree.

The number of hours in the major, minor and elective categories may vary depending on the major and minor selected. Care should be exercised in choosing courses to assure a minimum of 40 semester hours in courses numbered above 300.

All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education.

B.S.Ed. Degree Requirements, Elementary Program

The Northwest Core (48-52 hours)

Must include the following:

PSYC 08299	Educational Psychology	3
MATH 17171	Fundamentals of Mathematics	3
COM 29102	Fundamentals of Oral Communication	3
BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
PHSC 40102	The Physical Sciences	3
PHSC 40103	Physical Science Laboratory	1
MUS 19201	The Enjoyment of Music	3
	OR	
MUS 19202	Jazz Appreciation	3
	OR	
MUS 19222	American Popular Music	3
	OR	
ART 13102	Art Appreciation	3
GEOG 32101	Introduction to Geography	3

(must achieve grade of “C” or better in PSYC 08299, MATH 17171, and COM 29102)

BIOL 04102, BIOL 04103, PHSC 40102 and PHSC 40103 are prerequisites for SCED 28380 Methods in Elementary School Science.

ART 13102 is a prerequisite for Art and Music Methods courses (ART 13380 and MUS 19380).

Recommended

EDCI 62130	Educational Computing and Technology	3
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Degree Requirements (3)

EDUC 61569	Multiculturalism in Education	3
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Elementary Education Major Requirements (68-71)

Concentration in Subject Area of Specialization (21-22)

(See School of Education (p. 266))

Total Credit Hours: 124

All students interested in teaching at the elementary level must complete a Major in Elementary Education and one of the following specialty studies: Concentration in a subject area (21-22 hours), Early Childhood minor (30-34 hours), Early Childhood Special Education endorsement (36-39 hours), or additional major in Special Education-Cross Categorical. Concentration subject areas include: Language Arts, Math, Psychology, Science, Social Science, Multicultural Studies, Computer Science, Special Education-Cross Categorical, and Physical Education.

Elementary Education Major, 68-71 hours: B.S.Ed., Elementary Program (Certifies Grades 1-6)

CIP: 131202

Required Courses

The Northwest Core (48-52 hours)

Foundations for Teaching

EDCI 62301	Reporting Pupil Progress	2
EDCI 62371	Introduction to Special Education	3
PSYC 08312	Child Psychology	3
	OR	

PSYC 08333	Developmental Psychology	3
EDUC 61461	School and Society	2 to 3
PSYC 08299	Educational Psychology	3
PSYC 08303: (Directed Northwest Core)		

Teaching Methods

EDCI 62216	Literature for the Elementary School	3
EDCI 62320	Classroom Behavior Management	3
EDCI 62356	Teaching Reading/Language Arts in the Elementary School	4
EDCI 62380	Diagnostic and Corrective Reading	2
EDCI 62410	Elementary School Social Studies	3
ART 13380	Art in the Elementary School	2
MATH 17471	Mathematical Methods for Elementary Teachers	3
MUS 19380	Music in the Elementary School	2
HPER 22238	Health and Physical Education Methods in the Elementary School	3
SCED 28380	Methods in Elementary School Science	3

Clinical Experiences

EDCI 62211	Observation and Activity in the Elementary School	1
EDCI 62407	Elementary School Language Arts Practicum	1
EDCI 62420	Content Teaching in Elementary Schools	3
EDCI 62456	Practicum and Seminar in Elementary School Reading	3
EDUC 61471	Directed Teaching in the Elementary School	1 to 14
EDCI 62591	Seminar in Education	1

Elementary School Course

MATH 17371	Algebra and Geometry for Elementary and Middle School Teachers	3
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Certification Course

One of the following:

ECON 52130	Survey of Economics	3
ECON 52150	Principles of Macroeconomics	3
ECON 52151	Principles of Microeconomics	3

Subtotal: 68-71

NOTE: Directed teaching from other certification or other degrees may count for up to 6 hours of the 12 required hours.

NOTE: Students must achieve a grade of “C” or better in all major courses excluding Economics.

Elementary Education Concentration in Subject Area, 21 hours

This alternative is recommended for persons who wish to extend their competencies in a particular subject area, but do not seek additional certification at this time. Students should see the Coordinator of Elementary Education or their advisor for specific subject area requirements. Concentration subject areas include: Language Arts, Math, Psychology, Science, Social Science, Multicultural Studies, Special Education-Cross-Categorical, Physical Education, or Early Childhood.

Early Childhood Education Minor, 30-31 hours: B.S.Ed., Elementary Program (Certifies Birth through Grade 3)

CIP: 131204

This program is recommended for elementary majors who desire specialized training in early childhood programs for children birth to age eight. This minor is required for teaching in a self-contained kindergarten classroom in Missouri.

Requirements

Required Courses

EDCI 62312	Developing Foundations of Early Childhood Education	3
EDCI 62341	Early Childhood Program Management	3
EDCI 62330	Health, Nutrition, and Safety of Young Children	2
PSYC 08405	Parenthood Education	3
EDCI 62340	Principles of Early Childhood Education	2
EDCI 62531	Curriculum and Methods in Early Childhood	3
EDCI 62532	Family and Community Resources in Early Childhood	2
EDCI 62541	Assessment and Early Intervention in Early Childhood	3
EDCI 62543	Practicum in Early Childhood	4
EDUC 61473	Directed Teaching Early Childhood	1 to 6

EDUC 61473: Students enrolling in EDUC 61480 Directed Teaching Early Childhood Special Education should consult with advisor for correct advisement.

Total Credit Hours: 30-31

Early Childhood Special Education Certification, 6-9 hours: (Certifies Pre-K and K in Missouri)

CIP: 131099

This program is designed for the elementary education major/early childhood minor* who desires to teach pre-kindergarten and kindergarten children who have disabilities.

Requirements

Elementary Education Requirements (68-71)

Early Childhood Requirements (30-31)

Early Childhood Special Education Requirements

EDCI 62542	Curriculum and Methods in Early Childhood Special Education	3
EDCI 62544	Practicum in Early Childhood Special Education OR	3
EDUC 61480	Directed Teaching in Early Childhood Education	1 to 6

EDCI 62544: Graduate Students Only

EDUC 61480: Undergraduate Students Only

*Students not pursuing an elementary education major/early childhood minor should consult with their advisor for requirements.

Total Credit Hours: 6-9

Middle School Major, 47-54 hours: B.S.Ed. degree—Certifiable Subject Field Required

CIP: 131203

This major meets Grades 5-9 certification (subject area requirements for Grades 5-9) in Missouri when one minor, concentration, or endorsement is completed by the student. Students must meet the general studies Missouri certification requirements.

Middle School Major

The Northwest Core (48-52 hours)

Must include the following:

PSYC 08299	Educational Psychology	3
COM 29102	Fundamentals of Oral Communication	3

Must achieve grade of “C” or better in both PSYC 08299 and COM 29102.

Recommended:

MATH 17171	Fundamentals of Mathematics	3
EDCI 62130	Educational Computing and Technology	3

Degree Requirement (3)

EDUC 61569	Multiculturalism in Education	3
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Required Courses

Professional Education Requirements

EDUC 61461	School and Society	2 to 3
EDUC 61570	The Middle School	3
EDCI 62371	Introduction to Special Education	3
PSYC 08317	Psychology of Early Adolescence	2
PSYC 08299	Educational Psychology	3
PSYC 08303: (Directed Northwest Core)		

Teaching Methods

EDCI 62353	Teaching Reading in Content Areas	2
EDCI 62356	Teaching Reading/Language Arts in the Elementary School	4
EDCI 62430	Teaching Writing in Middle School	2
EDCI 62511	Middle School Curriculum, Methods and Practicum	3
EDUC 61520	Techniques of Classroom Management and Discipline	2
	Concentration area methods course	2 to 3

Concentration Area Methods Course: One for each minor, concentration and/or endorsement area

Additional Mathematics Course (State required)

MATH 17371	Algebra and Geometry for Elementary and Middle School Teachers	3
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Clinical Experience

EDUC 61262	Middle School Teaching Practicum I	1
EDUC 61362	Middle School Teaching Practicum II	1
EDUC 61474	Directed Teaching in the Middle School	1 to 18
EDCI 62591	Seminar in Education	1

Subtotal: 47-54

NOTE: Directed teaching from other certification fields may count for up to 6 of the 12 hours. See Middle School Coordinator for advisement.

Areas of Concentration/Endorsement/Minor

One minor or area of concentration (21 hours minimum) to be chosen from:

Language Arts, Mathematics, Science, Social Science, Agriculture Education, Business Education, and Speech/Theatre.

**Language Arts Concentrations for Middle School Major
(Certifies Grades 5-9 when completed with the Middle School Major)**

CIP: 131305

Requirements

Required Courses

(Meets requirements of Major in Middle School)

ENGL 10321	Teaching Reading in Middle and Secondary English Classrooms	3
ENGL 10322	Introduction to the Teaching of Writing	3

ENGL 10404	Schoolhouse Grammars and Pedagogy	3
ENGL 10590	Young Adult Literature	3
COM 29325	Listening Behavior and Skills	3
THEA 43460	Creative Dramatics	3

Electives

Choose 2 from the following:

ENGL 10210	Introduction to Creative Writing	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romanticism to the Present	3
ENGL 10372	Introduction to Shakespeare	3

Total Credit Hours: 24

ENGL 10580 Methods in Secondary School English is the required subject methods course.

Special Education Major: Cross Categorical, 90-94 hours: B.S.Ed. (Certifies Grades K-12)

CIP: 131007

Requirements

The Northwest Core (48-52 hours)

Required Courses

Foundations for Teaching

EDUC 61461	School and Society	2 to 3
EDUC 61569	Multiculturalism in Education	3
EDCI 62301	Reporting Pupil Progress	2
EDCI 62371	Introduction to Special Education	3
EDCI 62382	Introduction to Cross Categorical Special Education	3
EDCI 62470	Assessment in Special Education	3
EDCI 62471	Assessment in Special Education Lab	1
EDCI 62508	Transition/Career Education for Students with Disabilities	2
PSYC 08333	Developmental Psychology	3
	OR	
PSYC 08312	Child Psychology	3
	AND	
PSYC 08322	Adolescent Psychology	2
PSYC 08299	Educational Psychology	3

Teaching Methods

EDCI 62216	Literature for the Elementary School	3
HPER 22238	Health and Physical Education Methods in the Elementary School	3
EDCI 62356	Teaching Reading/Language Arts in the Elementary School	4
EDCI 62380	Diagnostic and Corrective Reading	2
ART 13380	Art in the Elementary School	2
MUS 19380	Music in the Elementary School	2
MATH 17371	Algebra and Geometry for Elementary and Middle School Teachers	3
MATH 17471	Mathematical Methods for Elementary Teachers	3
SCED 28380	Methods in Elementary School Science	3
EDCI 62410	Elementary School Social Studies	3
COM 29553	Language, Speech, and Hearing of the Exceptional Child and Adult	3
EDCI 62574	Teaching Math to Students with Disabilities	2

EDCI 62353	Teaching Reading in Content Areas	2
	OR	
EDCI 62553	The Reading Program in the Secondary School	3
EDCI 62320	Classroom Behavior Management	3
EDCI 62384	Teaching Students in Cross Categorical Special Education: Academic/Behavioral	3
	OR	
EDCI 62385	Teaching Cross Categorical Special Education: Academic/Behavioral, Secondary	3
EDCI 62386	Teaching Students in Cross Categorical Special Education: Functional/Physical	3
	OR	
EDCI 62387	Teaching Students in Cross Categorical Special Education: Functional/Physical, Secondary	3
EDCI 62385, EDCI 62387: (see advisor)		

Clinical Experiences

EDCI 62211	Observation and Activity in the Elementary School	1
	OR	
EDUC 61260	Secondary Teaching Practicum I	1
	AND	
EDUC 61360	Secondary Teaching Practicum II	1
	OR	
EDUC 61262	Middle School Teaching Practicum I	1
	AND	
EDUC 61362	Middle School Teaching Practicum II	1
EDCI 62407	Elementary School Language Arts Practicum	1
EDCI 62456	Practicum and Seminar in Elementary School Reading	3
EDCI 62444	Practicum in Special Education: Cross Categorical	3
EDUC 61481	Directed Teaching in Cross Categorical Special Education: Elementary	1 to 12
	AND	
EDUC 61482	Directed Teaching in Cross Categorical Special Education: Secondary	1 to 12

NOTE: Directed teaching from other certification or other degrees may count for up to 6 hours of the 12 required hours.

Total Credit Hours: 90-94

Majors in Special Education: Cross Categorical and Elementary Education

Additional requirements for adding elementary education (certifies self-contained grades 1-6) as a second major to the major in Special Education: Cross Categorical are the following:

Requirements

Courses

EDUC 61569	Multiculturalism in Education	3
ECON 52130	Survey of Economics	3
	OR	
ECON 52150	Principles of Macroeconomics	3
	OR	
ECON 52151	Principles of Microeconomics	3

GEOG 32101	Introduction to Geography	3
EDCI 62420	Content Teaching in Elementary Schools	3
EDUC 61471	Directed Teaching in the Elementary School	1 to 14
EDCI 62591	Seminar in Education	1

ECON 52130, GEOG 32101: Either Economics or Geography is required in the major in special education; both are required for elementary education.

EDUC 61471: When combined with a major in special education, there are two Directed Teaching placements of 6 hours each (one elementary and one special education for a total of 12.) Each major, taken separately, would require 12 hours of directed teaching, so the dual major does NOT add additional Directed Teaching hours. Therefore, only 9 additional hours are required to complete both majors.

ECON 52151, GEOG 32101: (if not taken as part of special ed.)

Special Education Concentration, 22 hours

This concentration is recommended for majors in elementary education wishing to extend their competencies to include the teaching of students with disabilities within the regular classroom. The program described below does **not** result in certification in special education.

Requirements

Required Courses

EDCI 62301	Reporting Pupil Progress	2
EDCI 62380	Diagnostic & Corrective Reading	2
EDCI 62382	Introduction to Cross Categorical Special Education	3
EDCI 62470	Assessment in Special Education	3
EDCI 62471	Assessment in Special Education Lab	1
EDCI 62504	Creating Inclusive Classrooms	3
EDCI 62384	Teaching Students in Cross Categorical Special Education: Academic/Behavioral	3
	OR	
EDCI 62385	Teaching Students in Cross Categorical Special Education: Academic/Behavioral, Secondary	3
	OR	
EDCI 62320	Classroom & Behavior Management	3
EDCI 62574	Teaching Math to Students with Disabilities	2

Total Credit Hours: 22

Education: Educational Leadership / 61

Education B.S., Secondary Program (Certifies Grades 9-12)

Completion of this curriculum, other University requirements, and an overall grade point average identified in the Professional Education Handbook on a 4.00 scale qualifies the student to receive a Bachelor of Science in Education degree.

The number of hours in the major, minor, and elective categories may vary depending on the major and minor selected. Care should be exercised in choosing courses to assure a minimum of 40 semester hours of senior college work in courses numbered above 300.

All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education.

B.S.Ed. Degree Requirements, Secondary Program

The Northwest Core (48-52 hours)

Must include the following:

COM 29102	Fundamentals of Oral Communication	3
PSYC 08299	Educational Psychology	3
Directed Northwest Core Requirement: (must achieve grade of "C" or better in each)		

Recommended:

EDUC 61145	Information and Educational Technology	3
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Degree Requirement (3)

EDUC 61569	Multiculturalism in Education	3
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Professional Education Requirements (27-28)

PSYC 08322	Adolescent Psychology	2
EDCI 62353	Teaching Reading in Content Areas	2
EDCI 62371	Introduction to Special Education	3
	Special Methods in Education	2 to 3
EDUC 61260	Secondary Teaching Practicum I	1
EDUC 61360	Secondary Teaching Practicum II	1
EDUC 61461	School and Society	2 to 3
EDUC 61462	School and Society Seminar	1
EDUC 61472	Directed Teaching in the Secondary School	1 to 10
EDUC 61520	Techniques of Classroom Management and Discipline	2
EDUC 61521	Seminar in Classroom Management	1

Subtotal: 27-28

EDUC 61360, EDUC 61461, EDUC 61520: These courses are to be taken in the same trimester as the content methods course.

EDUC 61462, EDUC 61472, EDUC 61521: These courses must be taken during the student teaching trimester.

Special Methods: (See department course listings). A special methods course must be completed with each major or minor which carries 9-12 or K-12 certification.

Major or Major/Minor Requirements and Electives (55-60)**Total Credit Hours: 124****Education B.S., Elementary-Secondary Program (K-12 Certification)**

Completion of this curriculum, other University requirements, and an overall grade point average identified in the Professional Education Handbook on a 4.00 scale qualifies a student to receive a Bachelor of Science in Education degree.

Candidates for this program must complete a major in one of the following areas: art, modern language, music, or physical education.

These majors may be combined with other majors and/or minors.

The number of hours in the major, minor, and elective categories may vary depending on the major and minor selected. Care should be exercised in choosing courses to assure a minimum of 40 semester hours of senior college work in courses numbered above 300.

All degrees in education are subject to state requirements which may change at any time due to action of the State Board of Education.

B.S.Ed. Degree Requirements, Elementary/Secondary Program**The Northwest Core (48-52 hours)**

Must include the following:

COM 29102	Fundamentals of Oral Communication	3
PSYC 08299	Educational Psychology	3
Directed Northwest Core Requirement: (must achieve grade of "C" or better in each)		

Recommended:

EDUC 61145	Information and Educational Technology	3
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Degree Requirement (3)

EDUC 61569	Multiculturalism in Education	3
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Professional Education Requirements (27-28)

EDUC 61260	Secondary Teaching Practicum I	1
EDUC 61360	Secondary Teaching Practicum II	1
EDCI 62353	Teaching Reading in Content Areas	2
EDUC 61461	School and Society	2 to 3
EDUC 61462	School and Society Seminar	1
EDUC 61470	Directed Teaching in Elementary and Secondary School	1 to 10
EDUC 61520	Techniques of Classroom Management and Discipline	2
EDUC 61521	Seminar in Classroom Management	1
EDCI 62371	Introduction to Special Education	3
PSYC 08322	Adolescent Psychology	2
	Special Methods in Education	2 to 3

A special methods course must be completed with each major or minor which carries 9-12 or K-12 certification. See department course listings.

EDUC 61360, EDUC 61461, EDUC 61520: These courses are to be taken in the same trimester as the content methods course.

EDUC 61462, EDUC 61470, EDUC 61521: These courses must be taken during the student teaching trimester.

Special Education majors should consult with their advisor for program substitutions for PSYC 08322 and EDCI 62353.

Major or Major/Minor Requirements and Electives (55-60)

Total Credit Hours: 124

Career Education

Northwest Missouri State University Outreach offers a professional development certificate program in Career and Technical Education. Upon successful completion of this program, career and technical educators meet DESE certification in career education at the secondary or adult levels and build their present knowledge in the areas of teaching, curriculum, and assessment. Courses are offered at Northwest's Outreach Centers in blended delivery of both face-to-face and online learning delivery modes.

Career and Technical Education Certificate, 16 hours

CIP: 131319

Career and Technical Education**Required Courses**

VOED 02501	History and Philosophy of Career Education	2
VOED 02505	Assessment in Career Education	2
VOED 02506	Career Education Curriculum	2
VOED 02508	Guidance in Career Education	2
	OR	
VOED 02510	Coordination of Cooperative Education	2 to 3
VOED 02515	Instructional Methods for Career Education	3
VOED 02520	Special Investigations in Career Education	1 to 3
EDCI 62371	Introduction to Special Education	3

Total Credit Hours: 16

School of Health Science and Wellness

Director: Terry Long

The School of Health Science and Wellness is comprised of five primary discipline areas including: Applied Health Science, Foods and Nutrition, Health and Physical Education, Recreation, and Behavioral Sciences. Each academic program area, with the exception of the new Applied Health Sciences program, are fully accredited by their respective professional organizations and all majors' courses are taught by fully qualified faculty and staff. Within each of these disciplines, multiple options, majors, emphasis areas, certifications, and minors exist.

Statement of Vision and Mission

Vision

The School of Health Science and Wellness will be the top choice for students seeking cutting edge educational opportunities in the pre-professional and professional fields in Health Science and Wellness

Mission

The mission of the School of Health Science and Wellness is to collaboratively educate diverse health and wellness professionals through excellence in student focused education and profession-based experiences centered on the science of lifespan health and active living.

Division of Health and Wellness

Assistant Director:

Faculty: Rhonda Beemer, Loren Butler, Bryan Dorrel, Alice Foose, Karen From, Jon Gustafson, Augustus Hallmon, Jodie Leiss, Gina McNeese, Susan Myllykangas, Matthew Symonds, Tyler Tapps, Kelli Wilmes

Administrative Appointments: Adam Dorrel, Charles Flohr, James Hinson, Tracy Hoza, Darin Loe, Scott Lorek, Ben McCollum, Nicholas Peters, Joe Quinlin, Kelly Quinlin, Mark Rosewell, Buck Scheel, Robert Veasey, Amy Woerth, Rich Wright

The vision of the Division of Health and Wellness is "lifespan health and active living." This vision is to be achieved through our mission, which is "to prepare and develop professionals to become leaders in the facilitation of healthy active lifestyles throughout society and across the lifespan".

The Division of Health and Wellness and the individual faculty who contribute to its existence on a daily basis are proud of their history of innovative, creative, and entrepreneurial efforts to continually grow and evolve in a manner that allows for vision to become reality. It is our desire as we move into the coming years to continue this tradition and lead the way into a new era for our School and the University as a whole. Driving this desire is our firm shared commitment to addressing health and lifestyle issues pertinent to the well-being of our society. Despite the professional diversity and various associated initiatives that exist among our faculty, we as a division share a common vision of Lifespan Health and Active Living for all people. This vision not only pertains to our local campus and our philosophical approach to developing professional leaders, but also to the surrounding region and both national and international societies. As we move forward to achieving the presented vision, our strategy will be to develop and address annually established goals to be implemented at micro, meso, and macro

levels within society. Priority will be placed first on ensuring that our departmental curriculum and the approach to student preparation reflect the inherent characteristics of our vision and associated mission. In addition, we intend to systematically expand our efforts through inter-departmental and inter-agency partnerships at the local and regional level. We believe that these efforts will result in multiple inter-disciplinary opportunities to have significant impact within the human services realm at all levels. Ultimately, we hope that reframing our departmental world view and modeling the potential value of this perspective for others will lead to a positive evolution of educational and human service delivery systems.

Foods and Nutrition / 47

In accordance with the vision and mission of Northwest Missouri State University, the philosophy of the Foods and Nutrition program is to provide quality education experiences, which are student-centered, and maintain commitment to continuous improvement. The mission of the Didactic Program in Dietetics is to instill in dietetics graduates a desire to be life-long learners, leaders, to prepare them for dietetics internships and to deliver food and nutrition services throughout society and across the lifespan to sustain or enhance their quality of life.

Advanced Standing Requirement

A student may apply for advanced standing after completing 60 hours and the completion of both NUTR 47234 Nutrition & Diet Behavior and NUTR 47431 Macronutrients with a minimum grade of "B" and a cumulative grade point of 3.0.

Must also complete 12 credit hours including ENGL 1011, ENGL 1012, COM 29102, MATH 17114 General Statistics, and NUTR 47234 Nutrition & Diet Behavior before being permitted to take any 300-400 level Dietetics course. These courses must be completed with a minimum 2.50 grade average.

Foods and Nutrition Comprehensive Major; Didactic Program in Dietetics, 72 hours: B.S.—No Minor Required

CIP: 513101

This program provides education for persons desiring a career in foods and nutrition. The Didactic Program in Dietetics at Northwest is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside, Plaza Suite 2000, Chicago, IL 60606, (312) 899-0400, ext. 5400. This degree, followed by a dietetic internship, enables one to sit for the examination leading to registered dietitian (RD) status.

Required Courses

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
	OR	
BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
MATH 17114	General Statistics	3
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
PHIL 39276	Bio-Medical Ethics	3
CSIS 44130	Computers and Information Technology	3
COM 29225	Intercultural Communication	3

Dietetics Core

NUTR 47240	Introduction to Dietetics	2
NUTR 47440	Senior Seminar in Dietetics	2

Specialization Requirements

MATH 17118	College Algebra	3
NUTR 47230	Food Science	4
NUTR 47232	Food Service Management	3
NUTR 47234	Nutrition and Diet Behavior	2
NUTR 47332	Quantity Food Preparation	2
NUTR 47333	Quantity Food Preparation Laboratory	2
NUTR 47334	Lifespan Nutrition	3
NUTR 47335	Community Nutrition	3

Professional and Interdepartmental Requirements

BIOL 04104	Medical Terminology	3
BIOL 04140	General Microbiology	4
BIOL 04238	Physiology Allied Health	4
PSYC 08333	Developmental Psychology	3
NUTR 47338	Practicum in Dietetics	1 to 3
NUTR 47431	Macronutrients	3
NUTR 47432	Micronutrients	3
NUTR 47433	Medical Nutrition Therapy I	4
NUTR 47434	Medical Nutrition Therapy II	4
NUTR 47436	Medical Nutrition Counseling	3
CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
MGMT 54313	Principles of Management	3
MGMT 54314	Human Resource Management	3

NUTR 47432 has a prerequisite of CHEM 24242, CHEM 24243 and CHEM 24362, CHEM 24363.

Total Credit Hours: 72

Students majoring in Foods and Nutrition must earn a grade of "C" or above in all courses required for the major.

Food Service Minor, 24 hours: B.S.

(Not available to Foods and Nutrition majors)

CIP: 190505

Requirements**Required Courses**

NUTR 47230	Food Science	4
NUTR 47232	Food Service Management	3
NUTR 47234	Nutrition and Diet Behavior	2
NUTR 47332	Quantity Food Preparation	2
NUTR 47333	Quantity Food Preparation Laboratory	2
NUTR 47439	Field Experience in Food Service Management	1 to 6

Choose 9 hours from the following courses (9):

ACCT 51201	Accounting I	3
MGMT 54313	Principles of Management	3
MKTG 55330	Principles of Marketing	3
MGMT 54314	Human Resource Management	3
FIN 53311	Business Law I	3

Total Credit Hours: 24

NUTR 47439 must be taken for a minimum of 2 hours.

Nutrition Minor, 23-24 hours: B.S.

(Not available to Foods and Nutrition Majors)

CIP: 190501

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory OR	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

NUTR 47230	Food Science	4
NUTR 47234	Nutrition and Diet Behavior	2
NUTR 47334	Lifespan Nutrition	3
NUTR 47431	Macronutrients	3
NUTR 47432	Micronutrients	3

Choose 4 hours from the following sets (4):

Set 1:

CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1

Set 2:

CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2

Set 3:

CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1

Choose 3-4 hours from the following courses (3-4):

BIOL 04436	Human Anatomy	4
BIOL 04238	Physiology Allied Health	4
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3

Northwest Core requirements are listed above. Refer to appropriate course descriptions for prerequisites for science courses.

Total Credit Hours: 23-24

Health / 22, Physical Education / 22

Applied Health Science Major, 68-69 hours: B.S.—No Minor Required

CIP: 510001

Mission

The mission of the Applied Health Science Program is to prepare future Health Science professionals for exemplary careers in a variety of health related professions. Graduates from the program will possess the knowledge and skills necessary to confront the health related challenges of tomorrow and the ability to serve a diverse clientele as a facilitator of healthy lifestyle across the lifespan.

Advanced Standing Requirements

A student may apply for advanced standing after completing 40 semester hours. The 40 semester hours must be completed with a grade point average of 2.75. The student must also complete the following courses with a grade of B or better: HPER 22254 Anatomy and Physiology or BIOL 04236 Anatomy Allied Health, HPER 22332 Physiology of Exercise, and HPER 22336 Basic Biomechanics.

To be in good standing (advanced standing), students must maintain a minimum GPA of 2.75 or higher within all major courses (Applied Health Science core and emphasis area) and must have a grade of C or better in all Applied Health Science (core) courses. Students must petition the School Director to gain permission to retake any Applied Health Science core class a third time.

Requirements

The Northwest Core (48-52 hours)

Recommended:

BIOL 04102	General Biology	3
BIOL 04103	General Biology Laboratory	1
CHEM 24112	General Chemistry	3
CHEM 24113	General Chemistry Laboratory	1
PHIL 39276	Bio-Medical Ethics	3

Core Requirements

HPER 22114	Wellness	3
HPER 22254	Anatomy and Physiology OR	3
BIOL 04236	Anatomy Allied Health	4
HPER 22332	Physiology of Exercise	3
HPER 22336	Basic Biomechanics	3
BIOL 04104	Medical Terminology	3
HPER 22233	First Aid, CPR, and Care of Sports Injuries	3
NUTR 47234	Nutrition and Diet Behavior	2
PSYC 08212	Personal Adjustment	3
HPER 22550	Community Health	3
HPER 22552	Health Promotion	3
HPER 22555	Intervention and Strategies for Health Behavior Change	3
HPER 22534	Evidence Based Practice in Health Science and Wellness	2
HPER 22447	Senior Seminar in Health Science and Wellness	1
HPER 22470	Internship in Applied Health Science	6

Emphasis 1: Aging Studies

REC 45216	Gerontology	3
REC 45315	Social Aspects of Aging and Families	3
REC 45469	Practicum in Aging	3
PSYC 08383	Psychology of Aging	3
REC 45365	Leisure and Aging	3
HPER 22556	Health in the Later Years	3

Aging Studies Electives

Choose 9 hours from below

REC 45461	Therapeutic Recreation Interventions with the Elderly	3
PSYC 08344	Drugs, Brain, and Behavior	3

COM 29325	Listening Behavior and Skills	3
COM 29336	Nonverbal Communication	3
REC 45547	Grantsmanship	3
COM 29225	Intercultural Communication	3
HPER 22220	Lifetime Activities and Dance	3

Note: COM 29225, if taken, may not also count in The Northwest Core.

Emphasis 2: Exercise Science

HPER 22529	Theory and Fundamentals of Strength and Conditioning/Personal Training	3
HPER 22410	Adapted Physical Education	3
HPER 22523	Motor Development	3
HPER 22532	Exercise Testing, Prescription, and Analysis of Cardiac Function	3
HPER 22541	Human Pathophysiology	3
HPER 22335	Sport and Exercise Nutrition Topics	3

Exercise Science Electives

Choose 9 hours from below

HPER 22556	Health in the Later Years	3
HPER 22515	Issues in Sport	3
HPER 22536	Mechanical Analysis of Sports Skills	3
HPER 22272	Introduction to Safety Education-Driver Education I	3
PSYC 08325	Sport Psychology	3
HPER 22382	Care and Prevention of Athletic Injuries	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

Total Credit Hours: 68-69

Physical Education Advanced Standing Requirement

A student may apply for advanced standing after completing 40 semester hours. The 40 hours must be completed with a minimum grade point average. The student must also complete the following courses with grades of C or better and a minimum grade point average of 3.00: HPER 22220 Lifetime Activities and Dance, 3 hours; HPER 22233 First Aid, CPR, and Care of Sports Injuries, 3 hours; HPER 22239 Foundations of Physical Education, 3 hours; and HPER 22254 Anatomy and Physiology, 3 hours. Please reference the Professional Education Handbook for minimum GPA requirements.

Professional Education Admission: Physical Education majors must also be admitted into the Professional Education Program. This process is initiated at the Teacher Education Student Service (TESS) Office. Refer to current guidelines for admission requirements.

Physical Education Certification: Students desiring to be certified to teach in Missouri must complete the Physical Education major coursework and all professional education coursework as listed for B.S. Education programs as required by the School of Education and the Professional Education Program.

To be certified to teach physical education in Missouri requires passing the Missouri Content Assessment.

Physical Education Upper-level Gated Courses:

The Physical Education major must be admitted to the Professional Education Program before admittance into specified upper-level physical education courses. There may be additional gated courses in the Professional Education Program not specified in the physical education major. The following upper-level physical education courses are “closed” or “gated” courses. Majors must be admitted to the Professional Education Program before taking any of the following courses:

Gated Courses

HPER 22445	Literacy and Applications in Physical Education	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

HPER 22523	Motor Development	3
HPER 22537	Assessment in Physical Education	3
HPER 22580	Methods in Secondary Physical Education	3

Physical Education Major, 51 hours: B.S.Ed. (Certifies Grades K-12)

CIP: 131314

The vision of the Health and Physical Education Teacher Education Unit is to develop competent and reflective educators. The mission of the Health and Physical Education Teacher Unit is to:

1. Develop the teacher candidates' knowledge base.
2. Provide experiential learning activities for the teacher candidate to develop a variety of instructional skills for all learners.
3. Mentor the teacher candidate to enhance positive dispositions.
4. Model better practices of the profession.

Physical Education program completion requirements:

1. Completion of a program-approved field experience within a diverse setting as required by the teacher preparation program.
2. Successful completion of the Missouri teacher certification exam for physical education.
3. Completion of all exit criteria in order to complete the teacher education program and be recommended for graduation and certification.

Requirements

Required Courses (51)

HPER 22114	Wellness	3
HPER 22220	Lifetime Activities and Dance	3
HPER 22233	First Aid, CPR, and Care of Sports Injuries	3
HPER 22238	Health and Physical Education Methods in the Elementary School	3
HPER 22239	Foundations of Physical Education	3
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22335	Sport and Exercise Nutrition Topics	3
HPER 22336	Basic Biomechanics	3
HPER 22362	Creative Movement and Rhythms	3
HPER 22382	Care and Prevention of Athletic Injuries	3
HPER 22410	Adapted Physical Education	3
HPER 22435	Lifetime Team and Individual Sports Instruction	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3
HPER 22523	Motor Development	3
HPER 22537	Assessment in Physical Education	3
HPER 22580	Methods in Secondary Physical Education	3

Professional Education Requirements (16)

Minimum of 16 semester hours as outlined in the Professional Education Requirements.

HPER 22445	Literacy and Applications in Physical Education	3
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Field Experience Requirements (10)

Minimum of 10 semester hours as outlined in the Professional Education Requirements.

HPER 22360	Mid-Level Field Experience in Physical Education	2
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Coaching Minor, 22 hours

CIP: 131314

Requirements**Four hours from the following (4):**

HPER 22481	Theory and Fundamentals of Coaching Soccer	2
HPER 22482	Theory and Fundamentals of Coaching Baseball	2
HPER 22483	Theory and Fundamentals of Coaching Track and Field	2
HPER 22484	Theory and Fundamentals of Coaching Basketball	2
HPER 22485	Theory and Fundamentals of Coaching Football	2
HPER 22486	Theory and Fundamentals of Coaching Volleyball	2

Core Requirements (16)

HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22334	Administration of Athletics and Coaching Practicum	2
HPER 22336	Basic Biomechanics	3
HPER 22382	Care and Prevention of Athletic Injuries	3
NUTR 47234	Nutrition and Diet Behavior	2

Two hours from the following (2):

HPER 22281	Officiating Soccer	1
HPER 22282	Officiating Baseball and Softball	1
HPER 22283	Officiating Track and Field	1
HPER 22284	Officiating Basketball	1
HPER 22285	Officiating Football	1
HPER 22286	Officiating Volleyball	1
HPER 22287	Officiating Wrestling	1

Total Credit Hours: 22**Health Education Minor, 29 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)**

CIP: 131307

Requirements**Core Requirements**

HPER 22233	First Aid, CPR, and Care of Sports Injuries	3
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22550	Community Health	3
HPER 22554	Human Sexuality	3
HPER 22555	Intervention and Strategies for Health Behavior Change	3
PSYC 08212	Personal Adjustment	3
NUTR 47234	Nutrition and Diet Behavior	2
SCGD 68520	Drug Prevention and Education in Schools	3

Three hours from the following:

HPER 22272	Introduction to Safety Education-Driver Education I	3
HPER 22552	Health Promotion	3
BIOL 04376	Basic Ecology	4
PSYC 08330	The Family	3

9-12 Certification:

HPER 22480 Health Methods in the Secondary School (3) must be completed as part of the Professional Education Requirements.

Total Credit Hours: 29

Health Certification, Grades K-9, B.S.Ed. Degree 26 hours

(not a major or minor)

CIP: 131307**Requirements****Required Courses**

HPER 22110	Lifetime Wellness	2
HPER 22111	Lifetime Wellness Laboratory	1
HPER 22233	First Aid, CPR, and Care of Sports Injuries	3
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22550	Community Health	3
HPER 22554	Human Sexuality	3
PSYC 08212	Personal Adjustment	3
NUTR 47234	Nutrition and Diet Behavior	2
SCGD 68520	Drug Prevention and Education in Schools	3

K-9 Certification:

HPER 22238 Health and PE Methods in the Elementary Schools (3) and HPER 22480 Health Methods in the Secondary School (3) must be completed as part of the Professional Education Requirements.

Total Credit Hours: 26**Physical Education Certification, 40 hours, Grades K-9, B.S.Ed. degree**

(Not a major or minor)

CIP: 131314**Requirements****Required Courses**

HPER 22233	First Aid, CPR, and Care of Sports Injuries	3
HPER 22238	Health and Physical Education Methods in the Elementary School	3
HPER 22239	Foundations of Physical Education	3
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22336	Basic Biomechanics	3
HPER 22361	Creative Rhythms and Activities 5-9	2
HPER 22362	Creative Movement and Rhythms	3
HPER 22410	Adapted Physical Education	3
HPER 22433	Senior Seminar in Physical Education	2
HPER 22512	Socio-Psychological Aspects of Human Performance	3
HPER 22523	Motor Development	3
HPER 22537	Assessment in Physical Education	3

Electives from:

(choose 1 class)

HPER 22207	Aerobic and Strength Conditioning	3
HPER 22208	Techniques of Folk, Square, and Recreational Dance	3
HPER 22430	Lifetime Team Activities	3
HPER 22431	Lifetime Individual Activities	3

Total Credit Hours: 40

This program meets the Missouri certification standards for grades K–9. The above courses serve as an area of concentration (24 hours) or endorsement (21 hours for Middle School Majors) in the Department of Professional Education.

Recreation / 45

Vision

- We make a difference locally, nationally, and internationally.
- We graduate students who are prepared and qualified to design, manage, and lead traditional recreation programs that are accessible to all peoples in both urban and rural areas.
- We prepare passionate students for the profession who can think critically, solve problems, communicate effectively, lead with assurance, and contribute to the continuation of the field and their communities.
- We are a model of pedagogy for the college and University.
- We believe in the philosophy of holistic health through the provision of recreation and our students who will be prepared to design, implement, manage, and evaluate programs and services in all recognized areas of the profession (i.e., cultural, aquatic, athletic, outdoor, commercial, public and private sector events and/or resource management, wellness, and therapeutic, with each age and/or need-based appropriate levels for groups or individuals throughout the lifespan—children, youth, adults, seniors).

Mission

The mission of the Recreation Program is the preparation of future Parks, Recreation and Leisure Service professionals. Professionals, who possess the knowledge, technical and human relations' skills needed to facilitate lifelong learning in a world of change; to confront the challenges of tomorrow; and the ability to help others in the development and pursuit of productive and healthy leisure lifestyles.

Values

- TOLERANCE for diverse peoples and situations.
- QUALITY OF LIFE by taking responsibility for our own health and promoting positive healthy behaviors to others.
- EXCELLENCE through our efforts to do the best quality work at all times.
- STEWARDSHIP through responsible social and environmental actions.
- ADVOCACY for access to services for everyone who wishes to participate.
- CARING for each other; both personally and professionally.
- HONESTY with each other to work together for the betterment of the program and success of our students.
- RESPECT for the historic foundations of the profession.
- EXPERIENCE for our students and selves through hands-on applications, coursework, and projects.

Advanced Standing Requirement: Recreation

A student may apply for advanced standing after completing 40 semester hours. The 40 semester hours must be completed with a grade point average of 2.25. The student must also

complete the following courses with a grade of “C” or better: REC 45240 Foundations of Recreation, 3 hours and REC 45245 Leisure Services and Special Populations, 3 hours.

To be in good standing (advanced standing), students must maintain a minimum GPA of 2.25 or higher within all major courses (recreation core and emphasis area) and must have a grade of “C” or better in all recreation (core) courses. Students must petition the department chair to gain permission to retake any recreation core class a third time.

Recreation Major, 57-69 hours: B.S.—No Minor Required

CIP: 310301

Requirements

Core Requirements

REC 45240	Foundations of Recreation	3
REC 45245	Leisure Services and Special Populations	3
REC 45340	Recreational Programs OR	3
REC 45345	Therapeutic Recreation Program Design	3
HPER 22447	Senior Seminar in Health Science and Wellness	1
REC 45440	Leisure Resources/Facility Design and Management	3
REC 45443	Techniques of Recreation Leadership	3
REC 45446	Evaluation of Leisure Services	3
REC 45450	Field Experience in Recreation and Park Management OR	3
REC 45451	Field Experience in Therapeutic Recreation OR	3
REC 45452	Field Experience in Corporate Recreation/Wellness	3
REC 45499	Recreation Internship	6 to 12
REC 45546	Administration of Recreation	3

Note: REC 45345 is required for Therapeutic Recreation Setting.

Subtotal: 31-37

Setting I—Therapeutic Recreation, 32 hours

The Northwest Core (48-52 hours)

Recommended:

PHIL 39276	Bio-Medical Ethics	3
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1

Required Courses

BIOL 04236	Anatomy Allied Health	4
BIOL 04238	Physiology Allied Health	4
REC 45243	Introductions to Therapeutic Recreation	3
REC 45461	Therapeutic Recreation Interventions with the Elderly	3
REC 45542	Trends and Issues in Therapeutic Recreation	3
REC 45562	Assessments, Diagnostics, and Treatment Planning in Therapeutic Recreation	3
PSYC 08223	Abnormal Psychology	3
PSYC 08333	Developmental Psychology	3
BIOL 04104	Medical Terminology	3

Select three hours from the courses below:

HPER 22332	Physiology of Exercise	3
HPER 22410	Adapted Physical Education	3
HPER 22523	Motor Development	3
REC 45321	Exploring Recreation Resources	3
Subtotal: 32		

Setting II—Corporate Recreation/Wellness, 26 hours

The Northwest Core (48-52 hours)

Required Courses

NUTR 47234	Nutrition and Diet Behavior	2
HPER 22254	Anatomy and Physiology	3
HPER 22332	Physiology of Exercise	3
HPER 22336	Basic Biomechanics	3
HPER 22410	Adapted Physical Education	3
HPER 22552	Health Promotion	3

Select nine additional hours from the courses below:

HPER 22382	Care and Prevention of Athletic Injuries	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3
HPER 22529	Theory and Fundamentals of Strength and Conditioning/Personal Training	3
HPER 22532	Exercise Testing, Prescription, and Analysis of Cardiac Function	3
REC 45321	Exploring Recreation Resources	3
HPER 22550	Community Health	3
HPER 22555	Intervention and Strategies for Health Behavior Change	3
HPER 22556	Health in the Later Years	3
REC 45216	Gerontology	3
REC 45365	Leisure and Aging	3
REC 45545	Risk Management	3
REC 45547	Grantsmanship	3
Subtotal: 26		

Setting III—Recreation and Park Management, 26-27 hours

The Northwest Core (48-52 hours)

Required Courses

REC 45444	Outdoor Recreation/Education	3
REC 45545	Risk Management	3
REC 45533	Recreation Sports Management OR	3
REC 45445	Natural Resource History and Interpretation	3

Note: REC 45533 is required for Options A and B. REC 45445 is required for Options C, D, & E.

Select 17-18 additional hours from one of the five options below:

Option A: Recreation Management

Choose 11-12 hours from the courses below:

REC 45321	Exploring Recreation Resources	3
REC 45365	Leisure and Aging	3
REC 45445	Natural Resource History and Interpretation	3
REC 45511	Golf Course Maintenance and Management	2
REC 45512	Aquatic Facility Maintenance and Management	2
REC 45513	Outdoor Recreation Facilities Maintenance and Management	2
REC 45525	Commercial Recreation	3
REC 45547	Grantsmanship	3

Select 6 hours from the courses below:

POLS 34321	American Federalism	3
ACCT 51201	Accounting I	3

MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MGMT 54314	Human Resource Management	3
MKTG 55330	Principles of Marketing	3

Option B: Adapted Recreation and Sports

REC 45243	Introductions to Therapeutic Recreation	3
HPER 22254	Anatomy and Physiology	3
HPER 22410	Adapted Physical Education	3

Select 9 additional credit hours from the courses below:

HPER 22362	Creative Movement and Rhythms	3
HPER 22435	Lifetime Team and Individual Sports Instruction	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3
HPER 22552	Health Promotion	3
HPER 22556	Health in the Later Years	3
REC 45321	Exploring Recreation Resources	3
REC 45365	Leisure and Aging	3
REC 45540	Group Dynamics	3
REC 45547	Grantsmanship	3
LANG 14151	Introduction to American Sign Language and Deaf Culture	3
PSYC 08223	Abnormal Psychology	3
PSYC 08333	Developmental Psychology	3

Option C: Park Management

Select 17 to 18 hours from the following courses:

REC 45513	Outdoor Recreation Facilities Maintenance and Management	2
REC 45321	Exploring Recreation Resources	3
REC 45547	Grantsmanship	3
REC 45525	Commercial Recreation	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
POLS 34321	American Federalism	3
POLS 34332	Principles of Public Administration	3
POLS 34502	Public Policy	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
GEOG 32501	Conservation of Natural Resources	3

Option D: Park Maintenance

Select 17 to 18 hours from the following courses:

REC 45321	Exploring Recreation Resources	3
REC 45511	Golf Course Maintenance and Management	2
REC 45512	Aquatic Facility Maintenance and Management	2
REC 45513	Outdoor Recreation Facilities Maintenance and Management	2
REC 45547	Grantsmanship	3
AGRI 03382	Woody Landscape Plants	3
AGRI 03383	Landscape Design	3
AGRI 03583	Turfgrass Management	3
GEOG 27212	Historical Geology	4
GEOG 27326	Geology of the Natural Parks	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
GEOG 32501	Conservation of Natural Resources	3

Option E: Park Ranger

Select 17 to 18 hours from the following courses:

REC 45321	Exploring Recreation Resources	3
REC 45547	Grantsmanship	3
MGMT 54313	Principles of Management	3

POLS 34205	Introduction to Criminal Justice	3
POLS 34315	Juvenile Justice System in America	3
POLS 34338	Rights of the Accused	3
PSYC 08223	Abnormal Psychology	3
PSYC 08333	Developmental Psychology	3
SOC 35320	Delinquency	3
SOC 35321	Criminology	3
SOC 35375	Police and Society	3
COM 29225	Intercultural Communication	3
COM 29325	Listening Behavior and Skills	3
COM 29336	Nonverbal Communication	3
GEOG 32201	Maps and Map Interpretation	3
GEOG 32207	GPS Fundamentals	3
Subtotal: 26-27		

Recreation Minor, 24 hours

CIP: 310301

Requirements

Required Courses

REC 45240	Foundations of Recreation	3
REC 45245	Leisure Services and Special Populations	3
REC 45340	Recreational Programs	3
REC 45443	Techniques of Recreation Leadership	3
REC 45444	Outdoor Recreation/Education	3
REC 45446	Evaluation of Leisure Services	3
REC 45450	Field Experience in Recreation and Park Management OR	3
REC 45451	Field Experience in Therapeutic Recreation OR	3
REC 45452	Field Experience in Corporate Recreation/Wellness	3
REC 45546	Administration of Recreation	3

Total Credit Hours: 24

Gerontology Interdisciplinary Minor, 24 hours

CIP: 301101

Requirements

Required Courses

PSYC 08383	Psychology of Aging	3
PSYC 08438	Principles of Counseling	3
HPER 22556	Health in the Later Years	3
REC 45216	Gerontology	3
REC 45315	Social Aspects of Aging and Families	3
REC 45469	Practicum in Aging	3

Choose 6 hours from the following courses to total 24 hours (6):

NUTR 47234	Nutrition and Diet Behavior	2
BIOL 04104	Medical Terminology	3
HPER 22550	Community Health	3
REC 45461	Therapeutic Recreation Interventions with the Elderly	3
PSYC 08344	Drugs, Brain, and Behavior	3
COM 29325	Listening Behavior and Skills	3
COM 29336	Nonverbal Communication	3
REC 45365	Leisure and Aging	3
HPER 22555	Intervention and Strategies for Health Behavior Change	3

Total Credit Hours: 24

Note: To qualify for the undergraduate Certificate Programs in Gerontology, the student must complete a 3 credit hour practicum/internship providing experiences with both well and frail older persons. If this is not part of the practicum/internship required in your major then see your minor advisor in regard to meeting this requirement.

Sport Psychology Interdisciplinary Minor, 24 hours

CIP: 310508

Requirements**Required Courses (12)**

PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08325	Sport Psychology	3
HPER 22254	Anatomy and Physiology	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

Select six hours from each of the categories below (12):**Exercise Science (6)**

select six hours from the following list:

HPER 22332	Physiology of Exercise	3
HPER 22336	Basic Biomechanics	3
HPER 22382	Care and Prevention of Athletic Injuries	3
HPER 22555	Intervention and Strategies for Health Behavior Change	3
NUTR 47234	Nutrition and Diet Behavior	2

Psychology (6)

select six hours from the following list:

PSYC 08212	Personal Adjustment	3
PSYC 08223	Abnormal Psychology	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08363	Psychology of Personality	3
PSYC 08365	Social Psychology	3
PSYC 08438	Principles of Counseling	3

Total Credit Hours: 24**Sport Management Interdisciplinary Minor, 24 hours**

This is an interdisciplinary minor in conjunction with the Booth School of Business and the School of Health Science and Wellness.

Requirements**Required Courses**

MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MGMT 54345	Sport Management	3
MKTG 55330	Principles of Marketing	3
HPER 22515	Issues in Sport	3
REC 45450	Field Experience in Recreation and Park Management	3
	OR	
REC 45452	Field Experience in Corporate Recreation/Wellness	3
	OR	
REC 45455	Field Experience in Sport Management	3

Choose two from the following:

REC 45545	Risk Management	3
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REC 45440	Leisure Resources/Facility Design and Management	3
REC 45525	Commercial Recreation	3
REC 45533	Recreation Sports Management	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

Note: One advisor-approved course (300-level or above) can be substituted for one of the above courses.

Total Credit Hours: 24

Division of Behavioral Sciences

Assistant Director: Shelly Hiatt

Faculty: Jerrold Barnett, Keely Cline, Sarah Creason, Elizabeth Dimmitt, Carla Edwards, Don Ehlers, Alisha Francis, , Cris Jacobson, Jackie Kibler, Lauren Leach-Steffens, Roger Neustadter, Jennifer Pratt-Hyatt, Kyoung-Ho Shin, Linda Sterling, Michele Veasey, Ryan Wessell

Mission

The Division of Behavioral Sciences focuses on Student Success in Career, Academics and Personal Development.

Vision

We will facilitate comprehensive professional student-centered and challenging learning within the university environment.

Values

The Division of Behavioral Sciences values:

- Critical thinking and scientific mentality
- Professionalism and professional ethics
- Student organizations and student research
- Personal responsibility
- Collegiality and professional networks

Degree Programs

Majors develop research and writing skills, problem solving and higher-order thinking ability related to analyzing, synthesizing, and evaluating information. Majors find jobs in administrative support, public affairs, education, business, sales, helping professions, service industries, health, the biological sciences, and computer programming. Many work as employment counselors, corrections counselor trainees, interviewers, personnel analysts, probation officers, and writers.

General Psychology PSYC 08103 and General Sociology SOC 35101 may not be counted toward any Behavioral Sciences Major or Minor requirements. In addition, Behavioral Sciences Majors cannot use any Behavioral Sciences courses to fulfill both major and minor requirements. For courses that are common to both the major and minor, advisor approved and reasonable electives must be used to fill the minor requirement. Work closely with your advisor to assure that you are adhering to this policy.

Test out is not available for any course offered by the division.

Advanced Standing Requirement

For all undergraduate psychology degree programs

To achieve advanced standing and enroll in PSYC 08423 History and Systems, in majors requiring this class, a student must have:

1. Senior Status
2. An overall 2.5 GPA and a "C" or better in the following classes: MATH 17114 General Statistics, PSYC 08103 General Psychology or PSYC 08303 Educational Psychology, and PSYC 08234 Introduction to Psychological Experimentation.

Exit Requirement

All graduating seniors with the exception of biology/psychology, industrial/organizational psychology, and Human Services majors must take the ACAT subject matter test and provide the department with test results prior to graduation approval.

Human Services Major, 36 hours: B.S.—Minor Required

CIP: 422707

This major can be used as a pre-professional or terminal degree, depending on the student's needs. Student should consult with their academic advisor, who can assist in course selection.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
SOC 35101	General Sociology	3

Required Courses

PSYC 08204	Introduction to Human Services	3
PSYC 08313	Industrial and Organizational Psychology	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08330	The Family	3
PSYC 08333	Developmental Psychology	3
PSYC 08335	Introduction to Case Management	3
PSYC 08438	Principles of Counseling	3
PSYC 08495	Field Placement/Internship	3
SOC 35337	Race and Ethnic Issues in Modern Society	3
SOC 35450	Research Methods in Social Sciences	3

Take six hours of approved Behavioral Sciences electives (6)

Total Credit Hours: 36

Psychology Major, 36 hours: B.S.—Minor Required

CIP: 420101

Students choosing a major in Psychology must take the following courses:

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
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Required Courses

PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08310	Cognitive Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08343	Biological Psychology	3

PSYC 08334	Experimental Psychology	3
PSYC 08353	Psychology of Race and Gender	3
PSYC 08363	Psychology of Personality	3
PSYC 08365	Social Psychology	3
PSYC 08423	History and Systems of Psychology	3

Take nine hours of approved Psychology electives (9)

Total Credit Hours: 36

Psychology Major, 30 hours: B.A.—Minor Required

CIP: 420101

Students choosing a major in Psychology must take the following courses:

Requirements

The Northwest Core (48-52 hours)

Must include the following:

MATH 17114	General Statistics	3
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Required Courses

PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08310	Cognitive Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08343	Biological Psychology	3
PSYC 08334	Experimental Psychology	3
PSYC 08353	Psychology of Race and Gender	3
PSYC 08363	Psychology of Personality	3
PSYC 08365	Social Psychology	3
PSYC 08423	History and Systems of Psychology	3

Take three hours of approved Psychology electives (3)

Total Credit Hours: 30

Industrial Psychology Comprehensive Major, 60 hours: B.S.—No Minor Required

CIP: 422804

This major combines knowledge of business practices with psychology's understanding of behavior and mental processes, providing a comprehensive perspective on behavior in organizations. Students are prepared for a variety of jobs in business, government, and other settings.

Students choosing a Comprehensive Major in Industrial Psychology must complete the following major requirements:

Requirements

The Northwest Core (48-52 hours)

Must include the following:

PSYC 08103	General Psychology	3
ECON 52150	Principles of Macroeconomics	3
MATH 17114	General Statistics	3

Required Courses

ACCT 51201	Accounting I	3
ACCT 51202	Accounting II	3
ECON 52151	Principles of Microeconomics	3
FIN 53311	Business Law I	3
FIN 53324	Fundamentals of Business Finance	3
MATH 17118	College Algebra	3
MGMT 54310	Managerial Communication	3
MGMT 54313	Principles of Management	3
MGMT 54314	Human Resource Management	3
MGMT 54320	Negotiations	3
MKTG 55330	Principles of Marketing	3
PSYC 08223	Abnormal Psychology	3
PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08310	Cognitive Psychology	3
PSYC 08313	Industrial and Organizational Psychology	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08363	Psychology of Personality	3
PSYC 08423	History and Systems of Psychology	3
PSYC 08365	Social Psychology	3
SOC 35450	Research Methods in Social Sciences	3

Total Credit Hours: 60

Biology/Psychology Comprehensive Major, 70-77 hours: B.S.—No Minor Required

CIP: 422706

This major allows students to complete individual programs of study arranged by advisors in the Department of Natural Sciences and Behavioral Sciences. While requiring students to complete half their class work as advised by each department, the number of elective hours gives this 70-77 hour program of study flexibility that allows students to tailor the major to their individual and specific academic needs. This program provides interdisciplinary training for a future career and/or graduate-level training in psychology, biology, allied health, or related fields. Students are urged to see advisors in both disciplines at an early date to contract a program of study.

Requirements

The Northwest Core (48-52 hours)

Must include the following:

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1
CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
PSYC 08103	General Psychology	3
MATH 17114	General Statistics	3

Collateral Requirements (16-18)

MATH 17117	Precalculus	4
	OR	
MATH 17118	College Algebra	3
	OR	
MATH 17120	Calculus I	4
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1

CHEM 24242	Organic Chemistry	3
CHEM 24243	Organic Chemistry Laboratory	1
	OR	
CHEM 24342	Organic Chemistry I	3
CHEM 24343	Organic Chemistry I Laboratory	2
PHYS 25110	General Physics I	3
PHYS 25111	General Physics I Laboratory	1

Collateral Electives (6-8)

(choose two)

CHEM 24344	Organic Chemistry II	3
CHEM 24362	Elementary Biochemistry	3
CHEM 24363	Elementary Biochemistry Laboratory	1
	OR	
CHEM 24562	General Biochemistry	3
PHYS 25112	General Physics II	3
PHYS 25113	General Physics II Laboratory	1

Required Courses for Biology (17)

BIOL 04114	General Zoology	3
BIOL 04115	General Zoology Laboratory	1
BIOL 04238	Physiology Allied Health	4
	OR	
BIOL 04330	Animal Anatomy and Physiology	4
	OR	
BIOL 04438	Human Physiology	4
BIOL 04310	Cell Biology	4
BIOL 04350	Genetics	4
BIOL 04491	Biological Science Seminar	1

BIOL 04491: Must take Biology ACAT in this course.

Biology Electives (7-10)

Choose two courses

BIOL 04104	Medical Terminology	3
BIOL 04140	General Microbiology	4
BIOL 04418	Vertebrate Histology	5
BIOL 04436	Human Anatomy	4
BIOL 04440	Molecular Biology	4
BIOL 04444	Immunology	5

Psychology Requirements (18)

PSYC 08223	Abnormal Psychology	3
PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08333	Developmental Psychology	3
PSYC 08334	Experimental Psychology	3
PSYC 08343	Biological Psychology	3
PSYC 08443	Advanced Biological Psychology	3

Psychology Electives (6)

Choose two courses from these or other approved courses

PSYC 08310	Cognitive Psychology	3
PSYC 08323	Child and Adolescent Psychopathology	3
PSYC 08335	Introduction to Case Management	3
PSYC 08344	Drugs, Brain, and Behavior	3

PSYC 08353	Psychology of Race and Gender	3
PSYC 08363	Psychology of Personality	3
PSYC 08370	Applied Behavior Analysis	3
PSYC 08383	Psychology of Aging	3
PSYC 08438	Principles of Counseling	3
PSYC 08365	Social Psychology	3

Total Credit Hours: 70-77

Psychology Minor, 24 hours

CIP: 420101

Requirements

Required Courses

PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08310	Cognitive Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08343	Biological Psychology	3
PSYC 08363	Psychology of Personality	3
PSYC 08365	Social Psychology	3

Take six hours of approved Psychology electives (6)

Total Credit Hours: 24

Child and Family Studies Minor, 24 hours

CIP: 190701

Requirements

Required Courses

PSYC 08312	Child Psychology	3
PSYC 08333	Developmental Psychology	3
PSYC 08331	People, Money, and Psychology	3
PSYC 08335	Introduction to Case Management	3
PSYC 08405	Parenthood Education	3
PSYC 08330	The Family	3
SOC 35443	Family Problems in Modern Society	3
	Behavioral Sciences elective	3

Total Credit Hours: 24

Sport Psychology Interdisciplinary Minor, 24 hours

CIP: 310508

Requirements

Required Courses (12)

PSYC 08234	Introduction to Psychological Experimentation	3
PSYC 08325	Sport Psychology	3
HPER 22254	Anatomy and Physiology	3
HPER 22512	Socio-Psychological Aspects of Human Performance	3

Select six hours from each of the categories below (12):

Exercise Science (6)

select six hours from the following list:

HPER 22332	Physiology of Exercise	3
HPER 22336	Basic Biomechanics	3
HPER 22382	Care and Prevention of Athletic Injuries	3

HPER 22555	Intervention and Strategies for Health Behavior Change	3
NUTR 47234	Nutrition and Diet Behavior	2

Psychology (6)

select six hours from the following list:

PSYC 08212	Personal Adjustment	3
PSYC 08223	Abnormal Psychology	3
PSYC 08315	Psychology of Groups and Teams	3
PSYC 08363	Psychology of Personality	3
PSYC 08365	Social Psychology	3
PSYC 08438	Principles of Counseling	3

Total Credit Hours: 24**Sociology Minor, 24 hours**

CIP: 451101

Requirements**Required Courses**

SOC 35101	General Sociology	3
SOC 35230	Social Problems	3
	OR	
SOC 35323	Deviant Behavior	3
SOC 35316	Urban Sociology	3
	OR	
SOC 35330	Social Stratification	3
SOC 35337	Race and Ethnic Issues in Modern Society	3
SOC 35450	Research Methods in Social Sciences	3
SOC 35455	Sociological Theory	3

SOC 35101: Cannot be used to fulfill any Northwest Core requirement.

Students must select six hours from the following list of approved electives

PSYC 08330	The Family	3
SOC 35375	Police and Society	3
SOC 35380	Sociology of Health and Illness	3
SOC 35321	Criminology	3
SOC 35460	Key Issues in Sociological/Anthropological Theory	3
SOC 35479	Independent Study in Sociology/Anthropology	1 to 3

Total Credit Hours: 24

The Missouri Academy of Science, Mathematics and Computing / 81

Dean: Cleo Samudzi, Ph.D.

Director of Student Achievement: Neal Davis

Missouri Academy of Science, Mathematics and Computing (Missouri Academy or MASMC) is a two-year early-entrance-to-college, residential program for academically high performing high school students. It is located on the campus of Northwest Missouri State University in Maryville, Missouri. The program selects students (domestic and international) who have completed 10th grade at their traditional high schools, and therefore replaces the junior and senior years of traditional high school. The curriculum consists of college coursework taught by professors at Northwest Missouri State University. Missouri Academy students attend the same classes with traditional university students, and professors have the same high expectations of Missouri Academy students as they do for traditional university students. Thus, all courses taken by Missouri Academy students are:

- Taught on the campus of Northwest Missouri State University
- Taught by regular faculty members of Northwest Missouri State University
- Taken in competition with degree candidates at Northwest Missouri State University
- Offered as regular part of the Northwest Missouri State University academic curriculum

High school students who successfully complete this program receive an Associate of Science (AS) degree in Science and Mathematics, as well as a high school diploma. It is an opportunity for exceptional students to live and study in a community of peers. The Missouri Academy is highly selective and only the best and brightest students are admitted to undertake what is arguably one of the most difficult high school curricula in the U.S.A. By most measures, this program has been successful since its inception in August 2000.

The primary goals of the Missouri Academy are: 1) to prepare students for continued success in higher education in the areas of science, technology, engineering and mathematics (STEM), and 2) to provide a solid foundation of education, integrity and quality and thus, to enable its graduates to have a lasting positive impact in society. Missouri Academy students participate in many co-curricular and extra-curricular activities that offer opportunities for enduring friendships, personal growth, recreation and leadership.

Many Missouri Academy graduates have gone on to attend in-state institutions such as the University of Missouri-Columbia, Missouri University of Science and Technology, Northwest Missouri State University, Washington University in St. Louis, Truman State University, and out-of-state institutions such as Boston University, University of Illinois, Cornell University, MIT, University of Iowa, and many others.

Missouri residents selected to attend the Missouri Academy receive scholarships covering about 45% of tuition/fees for two years (completion of the FAFSA is required). The Missouri Academy is committed to being affordable for all Missouri students regardless of family income. Therefore, depending on demonstrated need based on information provided on the FAFSA form, students receive scholarships to cover 20%-100% of the room costs. All students are expected to pay their board (meal) costs.

Applicants to the Missouri Academy must be currently enrolled in the tenth grade (or equivalent) of their traditional high school. A minimum ACT composite score of 23 and a mathematics sub-score of 24, or a minimum SAT composite score of 1060, with 560 in mathematics, is required for eligibility. Geometry and Algebra II must be completed prior to beginning the first trimester at the Missouri Academy. Admission decisions are based on: 1)

standardized test scores – ACT or SAT; 2) cumulative GPA in the 9th and 10th grades – minimum acceptable cumulative GPA is 3.5; 3) class rank – prefer students in the top 10% of class; 4) positive evaluations from three high school teachers; 5) student essays; and 6) official school records including disciplinary and tardy record.

Additional information and application forms can be obtained from the Missouri Academy by calling toll free (877) 398-4615, or by email at MASMC@nwmissouri.edu or at www.nwmissouri.edu/MASMC.

Statement of Mission

The Missouri Academy of Science, Mathematics and Computing is an early-entrance-to-college school at Northwest Missouri State University. Utilizing the principles of Integrity and Quality (IQ), this living and learning community prepares its graduates to succeed in science, technology, engineering and mathematics (STEM) and other academic fields at any higher education institution – thus empowering them to contribute to society in ethical and meaningful ways.

Degree Program

The Missouri Academy has a structured curriculum leading to the Associate of Science degree in Mathematics and Science. This degree is designed for the Missouri Academy only, and not for traditional students at Northwest Missouri State University.

Science and Mathematics A.S.

CIP: 309999

A.S. Degree

Common Core

Science

Biological/Life Sciences

BIOL 04106	Principles of Biology	3
BIOL 04107	Principles of Biology Laboratory	1

Chemical Sciences

CHEM 24114	General Chemistry I	3
CHEM 24115	General Chemistry I Laboratory	1
CHEM 24116	General Chemistry II	4
CHEM 24117	General Chemistry II Laboratory	1

Physical Sciences

PHYS 25120	Fundamentals of Classical Physics I	4
PHYS 25121	Fundamentals of Classical Physics I Laboratory	1
PHYS 25230	Fundamentals of Classical Physics II	4
PHYS 25231	Fundamentals of Classical Physics II Laboratory	1

Mathematics

MATH 17117	Precalculus	4
MATH 17120	Calculus I	4

Computing

CSIS 44141	Computer Programming I	3
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English/Communication

ENGL 10111	Composition I: Academic Literacies	3
ENGL 10112	Composition II: Writing as Engagement	3
COM 29102	Fundamentals of Oral Communication	3

International students at the Missouri Academy must additionally complete ENGL 10110 Introduction to College Writing as part of their Common Core.

Literature

Choose one of the following:

ENGL 10220	Introduction to Literature	3
ENGL 10224	Multiethnic Literature of the United States	3
ENGL 10226	Modern and Contemporary World Literature	3
ENGL 10233	American Literature: Beginnings to 1865	3
ENGL 10234	American Literature: 1865 to the Present	3
ENGL 10245	English Literature: Beowulf through the 18th Century	3
ENGL 10246	English Literature: Romanticism to the Present	3
ENGL 10325	Special Studies	1 to 3
ENGL 10331	The Bible and Literature	3
ENGL 10343	Survey of Women's Literature	3
ENGL 10372	Introduction to Shakespeare	3
ENGL 10220	(International students only)	

Social Science and Humanities

HIST 33155	The United States to 1877	3
POLS 34102	Introduction to American Government and Politics	3

Seminar/Colloquium

MOAC 81102	Seminar on You and Your Community	1
MOAC 81103	Colloquium	1

Pick one of the following four tracks:**Track 1: Science and Mathematics**

BIOL 04140	General Microbiology	4
	OR	
BIOL 04350	Genetics	4
CSIS 44149	Scientific Computing	3
MATH 17121	Calculus II	5

Choose one of the following Humanities courses:

HUM 26103	Western Civilization II: 1500 to the Present	3
HUM 26104	The Eastern World	3
HUM 26105	Information Technology and Culture	3
HUM 26162	Comparative Religions	3
PHIL 39171	Introduction to Philosophy	3
PHIL 39274	Historical Ethics	3
POLS 34105	The African World	3

Track 2: Biomedical Sciences

BIOL 04140	General Microbiology	4
BIOL 04350	Genetics	4
MATH 17230	Probability and Statistics	3
PHIL 39276	Bio-Medical Ethics	3

Track 3: Engineering and Physics

MATH 17121	Calculus II	5
PHYS 25320	Classical Mechanics I	3
PHYS 25321	Classical Mechanics I Laboratory	1
PHYS 25322	Statics	3

Choose one of the following Humanities courses:

HUM 26103	Western Civilization II: 1500 to the Present	3
HUM 26104	The Eastern World	3
HUM 26105	Information Technology and Culture	3
HUM 26162	Comparative Religions	3
PHIL 39171	Introduction to Philosophy	3
PHIL 39274	Historical Ethics	3
POLS 34105	The African World	3

Track 4: Computer Science

MATH 17215	Discrete Mathematics	3
CSIS 44241	Computer Programming II	3
CSIS 44242	Data Structures	3
CSIS 44356	Network Fundamentals OR	3
CSIS 44460	Database Systems	3

Choose one of the following Humanities courses:

HUM 26102	Western Civilization I: The Ancient World to 1500	3
HUM 26103	Western Civilization II: 1500 to the Present	3
HUM 26104	The Eastern World	3
HUM 26105	Information Technology and Culture	3
HUM 26162	Comparative Religions	3
PHIL 39171	Introduction to Philosophy	3
PHIL 39274	Historical Ethics	3
POLS 34105	The African World	3

For Academy students who continue their education at Northwest:

- MOAC 81102 and MOAC 81103 satisfy The Northwest Core requirement for University Seminar
- ENGL 10224 or HUM 26162 satisfies The Northwest Core requirement for Global Experiences
- HUM 26105, OR MOAC 81201 in conjunction with CSIS 44141 or CSIS 44149 satisfy The Northwest Core requirement for Digital Literacy
- Various other courses in the Academy program fulfill their appropriate Northwest Core requirements. Only ENGL 10220 satisfies The Northwest Core requirement for Literature. Academy students considering continuing their education at Northwest should contact their academic advisor for a complete listing of transferable equivalencies.

For students to graduate from the Missouri Academy a minimum cumulative GPA of 2.75 on a 4.0 scale must be maintained.

Total Credit Hours: 68

Courses

ACCT - Accounting

ACCT 51100 - Special Offering (1 to 2)

ACCT 51200 - Special Offering (1 to 4)

ACCT 51201 - Accounting I (3)

A beginning course in the principles and theory of accounting. (F, S, SS)

ACCT 51202 - Accounting II (3)

A continuation of ACCT 51201, with the partnership and corporation as forms of business organizations emphasized. Prerequisite: ACCT 51201 with a minimum grade of C. (F, S, SS)

ACCT 51300 - Special Offering (1 to 4)

ACCT 51301 - Cost Accounting (3)

An introductory course in the principles and theory of cost accounting, with an emphasis on managerial decision support. The focus is on deriving accounting information from various costing systems, and preparation, interpretation, and analysis of various reports, including use of spreadsheets. Prerequisite: ACCT 51202 with a minimum grade of C. (F, S)

ACCT 51303 - Tax Accounting I (3)

A study of Federal income tax compliance and tax planning for individuals and small businesses. Prerequisite: ACCT 51202 with a minimum grade of C. (F, S)

ACCT 51304 - Tax Accounting II (3)

A study of Federal income tax compliance and planning for partnerships, corporations, S corporations, estates and trusts. Prerequisites: ACCT 51202 and ACCT 51303 with a minimum grade of C in both. (S)

ACCT 51306 - Intermediate Accounting I (3)

An in-depth study of accounting procedures followed in the recording and controlling of assets and liabilities. Prerequisite: ACCT 51202 with a minimum grade of C. (F, S)

ACCT 51307 - Intermediate Accounting II (3)

A continuation of Intermediate Accounting I. Topics covered include investments, liabilities, income taxes, pensions, leases,

contributed capital and the statement of cash flows. Prerequisite: ACCT 51306 with a minimum grade of C. (F, S)

ACCT 51308 - Accounting Information Systems (3)

This is a course designed to give students a basic understanding of accounting systems, systems design and the organization of accounting data. Prerequisites: ACCT 51306 with a minimum grade of C and CSIS 44130. (S)

ACCT 51400 - Special Offering (1 to 4)

ACCT 51401 - Intermediate Accounting III (3)

Covers governmental and not-for-profit accounting, partnerships, earnings per share, accounting changes and error correction, and other miscellaneous financial accounting topics. Prerequisite: ACCT 51306 with a minimum grade of C. (S)

ACCT 51402 - Advanced Cost Accounting (3)

A course in cost identification, reporting, forecasting interpretation, and management of costs. Emphasis is on how costs and revenues are allocated to multiple products and services. Also includes an exposure to ethical considerations in relevant cost decisions. This is a continuation of ACCT 51301 Cost Accounting. Prerequisite: ACCT 51301 with a minimum grade of C. (F, S)

ACCT 51403 - Advanced Accounting (3)

Provides a study of consolidated financial statements, and international accounting. Prerequisite: ACCT 51307 with a minimum grade of C. (F)

ACCT 51404 - Auditing (3)

A study of generally accepted auditing standards and procedures. Prerequisite: ACCT 51307 with a minimum grade of C. (F)

ACCT 51405 - Intern in Accounting (1 to 3)

Students with junior or senior standing who are accounting majors, with the permission of the School Director, may enroll in an intern program with an approved business firm. This course is repeatable for new experience. (F, S, SS)

ACCT 51408 - Managerial Accounting (3)

A study is made of interpretation of accounting data, and the controlling and planning of business activities through the use of that data. This is a course for non-accounting majors. Prerequisites: ACCT 51202, MGMT 54313, FIN 53324 and MKTG 55330. (F, S, SS)

ACCT 51409 - Independent Study in Accounting (1 to 3)

Students with junior or senior standing with an area of concentration in accounting, with the permission of a member of the accounting faculty, may enroll in an independent study in accounting. This course is repeatable with topics changing. (F, S, SS)

ACCT 51500 - Special Offering (1 to 4)**AGRI - Agriculture****AGRI 03100 - Special Offering (1 to 4)****AGRI 03200 - Special Offering (1 to 4)****AGRI 03300 - Special Offering (1 to 3)****AGRI 03396 - Agricultural Advocacy (3)**

This course is designed to prepare students to be advocates for the agricultural industry. Students will gain an ability to recognize and understand various public perspectives regarding the agricultural industry. Students will learn to develop and disseminate material to inform the public concerning the nature of plant and animal production. Prerequisite: Junior standing or permission of instructor. (F)

AGRI 03400 - Special Offering (1 to 4)**AGRI 03500 - Special Offering (1 to 4)****Agricultural Economics****AGRI 03102 - Introductory Agricultural Economics (3)**

Principles of production, supply and demand are applied to economic problems of agriculture and agriculturally related industries. Emphasis is placed on understanding the theoretical underpinnings of decision analysis within the biological, institutional and structural parameters of the agricultural sector. (F, S)

AGRI 03302 - Agricultural Marketing (3)

A course surveying the nature of production, the marketing system, and the market for farm products, market functions and

institutions' commodity problems. Prerequisite: AGRI 03102. (F)

AGRI 03304 - Farm Management and Record Analysis (3)

Economic principles applied to the organization and operation of farms, complete and partial budgeting, farm record analysis, farm financial management and problems involving farm decision-making. Prerequisite: AGRI 03102 (F, S)

AGRI 03305 - Rural Real Estate Appraisal (3)

The classification and valuation of real estate using the sales, income, cost and productivity methods. Student will collect and analyze field data needed for the appraisal process. Prerequisite: AGRI 03102 or ECON 52151. (S, even years)

AGRI 03307 - Farm Business Records (3)

An application and examination of accounting principles applied to the issues and unique situations that occur in the agricultural industry. Double-entry accounting is emphasized. An accrual-adjusted system based on cash-basis accounting which is the most prevalent accounting system used in agricultural operations is utilized to provide more accurate information to measure profitability. Prerequisites: AGRI 03304 and ACCT 51201 or permission of instructor.

AGRI 03308 - Agricultural Data Analysis (3)

A study of the application of computers to agricultural problems and the utilization of the EDP Systems as a farm management tool. Prerequisite: completion of information technology competency and MATH 17118. (S)

AGRI 03309 - Applied Futures Marketing (3)

A course designed to familiarize the students with the composition of the futures and cost markets, how the cash and futures markets are related, chart reading to determine trends, basis formations, hedging and speculation. (F, S, SS)

AGRI 03404 - Livestock Marketing (2)

Economic analysis of marketing livestock products from the standpoint of producers, processors, distributors; also evaluation and pricing of meat animals. (S)

AGRI 03407 - Agricultural Finance (3)

Financial requirements of the individual farm firm, capital budgeting, principles of debt and equity fund acquisition, cash flow analysis and evaluation of credit needs. Farm credit institutions are studied. Prerequisite: AGRI 03304. (F, S)

AGRI 03408 - Professional Farm Management (3)

The effects of goals, values and resource availability upon management decisions. The farm production planning decisions will be determined by economic and financial analysis using a linear programming model. A long-run plan will be developed by each student. Other farm management computer applications are also covered. Prerequisite: AGRI 03304. (S, SS)

AGRI 03409 - Independent Study in Agricultural Economics (1 to 3)

For students who wish to intensify, enrich or specialize in the area of agricultural economics. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03502 - Agricultural Prices (3)

A study of the factors affecting prices of agricultural products; longtime cyclical, seasonal and other price movements; sources of information relating to production and demand factors; government activities as they relate to prices of agricultural products, and problems of price analysis and forecasting. Prerequisite: AGRI 03102 and AGRI 03302. (S)

AGRI 03503 - Agricultural Law (3)

The farmer's legal setting, deeds, mortgages, leases, water and fencing rights, easements, estate planning and other aspects. (F)

AGRI 03504 - Futures Trading (3)

An advanced course designed to provide an in-depth treatment of how the futures market is used throughout the marketing chain from farm production to end product use. Includes extensive study of the more technical aspects of charting and how to use these techniques as price forecasting tools. Prerequisite: AGRI 03309 OR graduate standing. (S, SS)

AGRI 03505 - Agricultural Resource Economics (3)

Physical, economic and institutional factors that affect the role of land in economic life; population and resource requirements; principles of land utilization; returns from

land; land value; property rights and tenure rights; social controls; and rural and urban land development. Prerequisite: AGRI 03102. (F, odd years)

AGRI 03508 - Agriculture Policy (3)

An analysis and history of the current economic problems of agriculture with emphasis on the influence of governmental policies. A term paper will be required. Prerequisite: AGRI 03102. (S, SS)

AGRI 03509 - Problems in Agricultural Economics (1 to 3)

Studies in the area of agricultural economics. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03598 - Advanced Agricultural Applications of Computers and GPS (3)

A study of the use of statistical analysis and mathematical models in the agricultural business decision-making process. Prerequisites: MATH 17114 or MATH 17610, CSIS 44130 or AGRI 03308. (S, odd years)

Agricultural Mechanization

AGRI 03112 - Agricultural Mechanics (4)

Topics include hot and cold metal work, arc and oxyacetylene welding, tool care and use, woodworking, concrete, engines and machinery management. (F, S)

AGRI 03312 - Agricultural Welding (2)

A course designed to combine the basic fundamentals of electric arc and oxyacetylene welding with application to actual farm conditions using farm machinery and materials. (SS)

AGRI 03419 - Independent Study in Agricultural Mechanization (1 to 3)

For students who wish to intensify, enrich or specialize in the study of agricultural mechanization. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03510 - Techniques in Agricultural Surveying (3)

Water management on the farm as it relates to maintaining soil productivity. Includes surveying, design, and layout of soil conservation engineering practices, such as waterways, diversions, terraces, farm ponds and drainage systems. (SS)

AGRI 03518 - Agricultural Drainage and Irrigation (3)

A study of the needs for drainage and irrigation in agriculture including the design and application of drainage and irrigation systems under various conditions.
Prerequisite: AGRI 03234. (F, even years)

AGRI 03519 - Problems in Agricultural Mechanization (1 to 3)

Studies in the area of specialization of agricultural mechanization arranged with a member of the faculty. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

Agricultural Education**AGRI 03320 - Foundations of Agricultural Education (3)**

A course dealing with the history and future of education in agriculture and what is included in an agricultural education program, with emphasis on leadership training and the FFA. Professional organizations are also included. (F)

AGRI 03420 - Program Planning in Agricultural Education (3)

Curriculum construction in agricultural education, preparation of audio-visual aids, summer programs and the development of departmental and FFA programs of activities.
Prerequisite: AGRI 03320 and admittance to Teacher Education. (F)

AGRI 03421 - Conducting Supervised Agriculture Experience Programs (2)

A course dealing with the experience program requirements of students in high school agriculture. How to plan, organize, evaluate and carry out the SAE programs.
Prerequisite: Admittance to Teacher Education. (F)

AGRI 03422 - Adult Education in Agriculture (2)

A course dealing with adult education. Emphasis on establishment of young farmer and adult programs, determining needs, gathering resources and utilization of instructional skills with the adult student. (F)

AGRI 03429 - Independent Study in Agricultural Education (1 to 3)

For students who wish to intensify, enrich or specialize in the study of any aspect of agricultural education with members of the

staff. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03524 - Teaching Agricultural Science Laboratories (2)

Methods of teaching and maintaining an agricultural education program. How to plan the physical plant; select tools, equipment and supplies; organize course content; and properly conduct and manage agriculture laboratories. (S)

AGRI 03525 - Induction Year Beginning Teacher I (2)

A continuing education course for the professional development of first-year teachers of agriculture. Course focuses on the pedagogical knowledge, skills, attitudes, and managerial skills needed by beginning teachers of agriculture.

AGRI 03527 - Induction Year Beginning Teacher II (2)

A continuing education course for the professional development of second-year teachers of agriculture. Focus is on the pedagogical knowledge, skills, attitudes, and managerial skills needed by beginning teachers of agriculture. (SS)

AGRI 03529 - Problems in Agricultural Education (1 to 3)

Studies in the area of agricultural education. Consent of instructor necessary. Course is repeatable with topic change. (F, S, SS)

AGRI 03580 - Methods in Teaching Agriculture (2)

A course in the special methods and materials of teaching agriculture, with an emphasis on teaching problem solving and agriculture management. Prerequisite: Admittance to Teacher Education. (F)

Agricultural Science**AGRI 03296 - Seminar (1)**

A course designed for presenting papers and discussion of problems as well as research in agriculture. (F, S)

AGRI 03393 - U.S. Agriculture Travel Experience (1 to 3)

Exploration of agronomic, horticultural, livestock and economic principles including sustainable and best management practices, agricultural marketing, food quality, and food safety as they apply to conventional

and organic agricultural systems within the United States. Domestic travel required. Course is repeatable for new experience for a total of 3 hours. Prerequisite: sophomore standing or permission of instructor.

AGRI 03498 - Agriculture Occupations Internship (3 to 6)

Supervised program of applied management practices, policies and procedures within areas of agricultural business occupations. Course may be repeated for additional experience, new material and progression of study for a total of 6 hours. Prerequisite: Consent of advisor necessary. (F, S, SS)

AGRI 03590 - International Agriculture Travel Experience (3)

Exploration of agronomic, horticultural, livestock and economic principles including sustainable and best management practices, agricultural marketing, food quality, and food safety as they apply to conventional and organic agricultural systems abroad. International travel required. Prerequisite: sophomore standing or permission of instructor.

Agronomy

AGRI 03130 - Plant Science (4)

A survey course that covers fundamentals of structure, function and environmental interactions of higher plants. The application of science to the study and utilization of plants is examined. Three hours of lecture and a two-hour laboratory per week. (F, S)

AGRI 03232 - Crop Production (3)

A study of how current technology, along with principles of adaptation, development and culture are applied to the production of agronomic and other crops. Prerequisites: AGRI 03130 or BIOL 04112 and BIOL 04113, or consent of instructor. (F)

AGRI 03234 - Fundamentals of Soil Science (4)

Characterization of soils as a natural resource emphasizing their physical, chemical, mineralogical, and biological properties in relation to plant growth, land-use management, soil and water quality, and food production. Prerequisites: CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115 or permission of instructor. (F, S)

AGRI 03238 - Techniques of Crop Scouting (1 to 2)

A hands-on practical workshop course designed to provide the student with the primary skills needed to do soil sampling and pest identification. Pest management strategies and elemental GIS utilization will also be included. (S)

AGRI 03292 - Introduction to Agricultural Pesticides (3)

A study of pesticide use and principles of their regulation, application, efficacy and environmental fate. Prerequisites: CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115 or consent of instructor. (S)

AGRI 03330 - Forage Crop Science (3)

A detailed study of the culture, storage and utilization of the principal forage crops. Prerequisite: AGRI 03130, BIOL 04102 and BIOL 04103 or BIOL 04106 and BIOL 04107 recommended. (S)

AGRI 03332 - Soil Microbiology (3)

Introductory course in the fundamentals and principles of soil microbiology. Prerequisite: BIOL 04102 and BIOL 04103 or AGRI 03130 or AGRI 03234 or consent of instructor. (S, SS)

AGRI 03336 - Crop Physiology (3)

A study of the physiological, nutritional and ecological aspects of crop growth and management. Prerequisite: AGRI 03130 or BIOL 04112 and BIOL 04113. CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115 recommended. (F)

AGRI 03432 - Soil and Water Conservation (3)

Overview of national and global soil/water resources, historical and current soil erosion issues, governmental conservation programs, agricultural management techniques to protect natural resources: use of erosion prediction equations in soil and water management. Prerequisite: AGRI 03234. (F)

AGRI 03434 - Weed Science: Ecology and Control (3)

Study and evaluation of weed competition concepts and the current and evolving methods of weed management. Prerequisite: AGRI 03130 or BIOL 04112 and BIOL 04113. (F)

AGRI 03437 - Soil Judging (1)

Field experience in soil evaluation. Course may be repeated twice for a new experience for a total of 3 hours. Prerequisite: AGRI 03234. (F,S)

AGRI 03440 - Introduction to Precision Agriculture (3)

Overview of precision agriculture technologies and techniques, including soil sampling, global positioning and remote sensing; discussion of environmental, economic and agronomic benefits/limitations of technologies/techniques. Prerequisite: AGRI 03234. (F)

AGRI 03442 - Practical Field Crops Evaluation (1)

Experience and practice in identification, agronomic calculations, and applications of agronomic facts. Consent of instructor required. Prerequisite: AGRI 03232. (S)

AGRI 03445 - Applied Research in Precision Agriculture (3)

Development and implementation of a practical research project in the application of precision agriculture technologies, such as GPS, GIS, and/or other agricultural technologies, to real world agricultural problems/situations. Project findings will be professionally presented to interested parties/faculty. Prerequisites: AGRI 03440, GEOG 32207 and GEOG 32365.

AGRI 03449 - Independent Study in Agronomy (1 to 3)

For students who wish to intensify, enrich or specialize in the study of any aspect of agronomy under the direction of a staff member. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03530 - Soil Formation and Classification (3)

Identification and evaluation of soil morphological characteristics; study of the form and dynamics of soil bodies across the landscape and soil-forming factors and processes; introduction to pedological features used in Soil Taxonomy. Prerequisite: AGRI 03234. (F, even years)

AGRI 03534 - Plant Breeding (3)

A study of the improvement of agricultural plants by application of the principles of heredity. Prerequisite: AGRI 03130 or BIOL 04112 and BIOL 04113. (S)

AGRI 03536 - Soil Fertility (3)

Principles of soil productivity and nutrients required for crop growth; fertilizer sources and nutrient reactions in soil; methods of fertilizer nutrient placement in major tillage

systems; interpretation of soil test and plant analyses for determining crop nutrient requirements. Prerequisite: AGRI 03234. (S)

AGRI 03540 - Grain Crops (3)

This course uses systems concepts as the basis for studying humankind's most important crops. An integrative approach is taken in the examination of production processes, management strategies, and environmental issues. Prerequisite: 12 hours of agriculture. (F, odd years)

AGRI 03543 - Soil Chemistry: Environmental Quality and Plant Nutrition (3)

A comprehensive study of chemical processes in soil systems. Prerequisite(s): CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115 or AGRI 03234 or AGRI 03130 or instructor's consent. (F, odd years)

AGRI 03549 - Problems in Agronomy (1 to 3)

Studies in the area of agronomy arranged with members of the staff. Consent of instructor necessary. Course is repeatable with topics changing for a total of 3 hours. Prerequisite: AGRI 03234. (F, S, SS)

Animal Science**AGRI 03150 - Animal Science (4)**

An introductory animal science course dealing with the meat animal and dairy industry. Includes basic principles of selection, nutrition, reproduction, anatomy, physiology, management, and an overview of the livestock industry. (F, S)

AGRI 03252 - Livestock Evaluation (3)

Develop skills in selecting animals for specific uses and develop ability to explain decisions and to accurately describe their reasons. Work will include beef cattle, sheep, swine and goat. Prerequisite: AGRI 03150. (F, SS)

AGRI 03352 - Meat Science (3)

Muscle growth and composition, nutritional and health concerns, meat safety and advances in product development, preparation, and storage. Also carcass fabrication, processing and grading. Prerequisite: AGRI 03150. (S)

AGRI 03358 - Livestock Health and Disease Management (3)

An overview of common farm animal diseases including diagnosis, prevention and management. Prerequisite: AGRI 03150. (S)

AGRI 03360 - Principles of Animal Nutrition (3)

A study of the principles of animal nutrition and practical problems of feeding livestock. Prerequisite: AGRI 03150. (F)

AGRI 03362 - Anatomy and Physiology of Domestic Animals (3)

A study of the major physiology and anatomy of the major anatomical systems of the ruminant, monogastric, and fowl as related to their growth and production. Prerequisite: AGRI 03150. (F, SS)

AGRI 03365 - Artificial Insemination (1 to 3)

A study of artificial insemination techniques of domestic animals as related to reproductive anatomy, physiology and breeding management. Prerequisite: AGRI 03150. (SS)

AGRI 03366 - Principles of Animal Breeding (3)

A study of the reproductive anatomy, endocrinology, physiology and management of domestic animals. Prerequisite: AGRI 03150. (S)

AGRI 03450 - Small Ruminant Science (3)

Reproduction, physiology, nutrition and management of commercial and purebred sheep. Prerequisite: AGRI 03150. (S)

AGRI 03452 - Beef Science (3)

Reproduction, physiology, nutrition and management of commercial and purebred beef cattle. Includes lab sessions. Prerequisite: AGRI 03150. (F)

AGRI 03454 - Swine Science (3)

Reproduction, physiology, nutrition and management of commercial and purebred swine. Prerequisite: AGRI 03150. (F)

AGRI 03455 - Advanced Livestock Production and Management (3)

Management of livestock systems, including record keeping, health protocols, nutrition, reproduction and genetic selection. Prerequisite: AGRI 03150 and consent of the instructor. (F)

AGRI 03460 - Advanced Animal Nutrition (3)

A study of the nutritive requirements of animals for maintenance, growth, lactation, reproduction, and other bodily functions. Intermediary metabolism of nutrients. Ration balancing for livestock at various stages of production. Prerequisite: AGRI 03360. (S)

AGRI 03469 - Independent Study in Animal Science (1 to 3)

For students who wish to intensify, enrich or specialize in the study of any area of animal science. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

AGRI 03470 - Dairy Science (3)

Fundamentals of the dairy industry. Includes basic principles of nutrition, reproduction, milk production and management of dairy herds. Prerequisite: AGRI 03150. (S)

AGRI 03566 - Genetics of Livestock Improvement (3)

Applications of genetics to the breeding and improvement of livestock. Prerequisite: AGRI 03150. (F)

AGRI 03569 - Problems in Animal Science (1 to 3)

Studies in the area of animal science arranged with a member of the faculty. Consent of instructor necessary. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

Horticulture

AGRI 03380 - Plant Propagation (3)

Principles and practices of sexual and asexual propagation of plants. Prerequisite: AGRI 03130 OR BIOL 04112 and BIOL 04113. (S)

AGRI 03381 - Applied Entomology (3)

A study of insects with special reference to taxonomy, life cycles, economic importance and management. (F)

AGRI 03382 - Woody Landscape Plants (3)

Description, use, adaptation, culture and classification of woody plants and cultivars. Prerequisite: AGRI 03130 OR BIOL 04112 and BIOL 04113. (F)

AGRI 03383 - Landscape Design (3)

Design and development of residential space. Prerequisite: AGRI 03130 OR BIOL 04112 and BIOL 04113. (S, odd years)

AGRI 03385 - Greenhouse Crop Production (3)

The identification, propagation and culture of flowering potted plants, annual plants and tropical ornamentals. Prerequisite: AGRI 03130 OR BIOL 04112 and BIOL 04113. (F)

AGRI 03387 - Greenhouse Management and Materials (3)

A survey of methods and materials related to management of the greenhouse environment, including heat, light, ventilation, soil, fertilizer, irrigation and crop scheduling. Prerequisites: AGRI 03130 or BIOL 04112 and BIOL 04113, and AGRI 03234. (S)

AGRI 03388 - Fruit and Vegetable Crop Production (3)

Fundamentals of fruit and vegetable crop production, with an emphasis on environmental factors influencing growth, development and quality. Prerequisites: AGRI 03130 or BIOL 04112 and BIOL 04113, and AGRI 03234.

AGRI 03483 - Landscape Construction (3)

Study of the design and installation of hardscape components in residential and commercial landscapes, including electrical lighting, water management systems, landscape structures, retaining walls, irrigation systems and the use of sustainable materials.

AGRI 03485 - Herbaceous Perennials (3)

Course encompasses the identification, selection and culture of herbaceous perennials, biennials and ornamental grasses. Prerequisites: AGRI 03130 OR BIOL 04112 and BIOL 04113, and AGRI 03234.

AGRI 03489 - Independent Study in Horticulture (1 to 3)

For students who wish to intensify, enrich or specialize in the study of any area of horticulture. The course requires the consent of the advisor and supervising staff member. Course is repeatable with topic change for a total of 6 hours. (F, S)

AGRI 03582 - Plant Diseases (3)

A study of diseases affecting ornamentals and crop plants; their causes, nature, economic effects, epidemiology, and control. Prerequisites: AGRI 03130 or BIOL 04112 and BIOL 04113, and CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115. (S)

AGRI 03583 - Turfgrass Management (3)

A study of the selection, establishment and maintenance of various turfgrasses with emphasis on nutrient and pest management. Prerequisite: AGRI 03130 OR BIOL 04112 and BIOL 04113. (S, even years)

AGRI 03585 - Principles of Postharvest Agriculture (3)

A study of the physical and physiological principles related to harvest packaging, transportation, marketing, quality and safety of horticultural crops. Prerequisites: AGRI 03130 or BIOL 04112 and BIOL 04113, and AGRI 03234.

AGRI 03589 - Problems in Horticulture (1 to 3)

Studies in the area of horticulture arranged with members of the staff. The course requires consent of the advisor and supervising staff member. Course is repeatable with topic change for a total of 3 hours. (F, S, SS)

ARSC - College of Arts and Sciences**ARSC 71301 - British Life and Culture (3)**

The student will survey British cultural, social, and political life through a series of lectures (by British experts) and field trips. This course is available only to those in the Missouri London Program. (F,S)

ART - Art**ART 13102 - Art Appreciation (3)**

A study of the elements and principles of art as well as forms of expression in works from the major periods of Western art. Although the works will be studied in the context of history, the course is not a chronological survey. Not a studio course. Not for art majors. (F,S)

ART 13200 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for additional experience, new material and progression of study.

ART 13299 - Individual Problems in Studio (2)

Individual direction using previously learned skills and techniques. Prerequisite: Permission of instructor. Repeatable once

for additional experience, new material and progression of study. (F, S)

ART 13316 - International Studies in Art History (3)

A course involving international travel emphasizing an art historic and personal reflection to the art, architecture, and culture of selected foreign countries. Course length is approximately one month. This course is an approved art history elective for art majors. Prerequisite: ART 13110 (Alt. summers)

ART 13399 - International Studies in Studio (3)

A course involving international travel emphasizing a studio artist's response to the art, architecture, and culture of selected foreign countries. Course length is approximately one month. Students may enroll twice in the same session for a maximum of six credits. (Advanced standing not required for undergraduate students requesting upper division credit providing course prerequisites have been met.) Prerequisites: ART 13109 or ART 13111, and ART 13221 or ART 13201 or ART 13333. (Alt. summers)

ART 13400 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for additional experience, new material and progression of study.

ART 13402 - Senior Seminar (1)

A seminar dealing with issues encountered by the art educator and artist. Exhibition techniques, preparation of resumes, preparation of letters seeking interviews, preparation of portfolios, and interview techniques will be stressed. Prerequisite: Permission of department chairperson. (F)

ART 13403 - Senior Exhibition (1)

An exhibition to include works produced expressly for the exhibition and outstanding works previously done. Prerequisite: ART 13402. (F, S)

ART 13405 - Art Internship (3 to 6)

Applied and practical experience in an art-related business to gain professional insights and experience in the field. Prerequisite: Permission of the instructor. Must be an art major with an emphasis in studio art or interest in art history and a 2.5 GPA in the

major. Repeatable for additional experience, new material and progression of study. (F, S, SS)

ART 13415 - Interactive Digital Media Seminar (1)

A seminar dealing in issues faced by multimedia professionals and preparation for advanced study. Major emphasis will be placed on the development of a professional portfolio, resume writing and interviews for the field of multimedia. Prerequisites: Junior or senior standing by advisement. (F)

ART 13425 - Knacktive (3)

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more information. Course is repeatable for additional experience. (S)

ART 13500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for additional experience new material and progression of study.

ART 13501 - International Graduate Studies in Art (3 to 6)

A course involving international travel emphasizing the art, architecture, and culture of selected foreign countries. Students may earn approved art history and/or studio credit. Course length is approximately one month. Students may enroll twice in the same session for a maximum of six credits. Prerequisites are determined by the intended application of this credit toward the student's degree. (alternate summers)

Art Education

ART 13180 - Principles of Art Education (3)

The examination of theories, concepts, and principles of art education within the context of the history of art education. The impact of philosophies of art, art education, and general education, relevant psychological

and sociological research, current issues and trends in the field, and the nature of art are investigated as they apply to art education. (F)

ART 13280 - Visual Art Concepts (3)

The course is an examination of philosophies, theories, concepts, and principles of art. Investigation of visual art aesthetics and critical inquiry (art criticism) will be undertaken to develop the student's knowledge and comprehension of these fields. (S)

ART 13380 - Art in the Elementary School (2)

An orientation in current concepts of art education teaching strategies and learning processes and procedures for the elementary classroom. Concepts of art education are presented with experiences to explore appropriate methods and materials. Art majors cannot receive credit for this course. Prerequisite: ART 13102 or MUS 19201, MUS 19202 or MUS 19222. (F, S)

ART 13382 - Methods in Elementary Art (3)

The teacher's role in directing art experiences in the elementary art classroom. Consideration is given to the student developing strategies for implementing art activities for the individual, class, and total school art program. Prerequisite: ART 13180. (S)

ART 13386 - Papermaking (3)

Processes and techniques for creating two-dimensional and three-dimensional forms using handmade paper. Prerequisite: Advanced standing for art majors. (S)

ART 13389 - Individual Study in Art Education (2)

Individual investigations in art education. Prerequisites: ART 13180 and permission of instructor. Repeatable once for additional experience, new material and progression of study. (S)

ART 13395 - Design With Fibers (3)

Two- and three-dimensional design for fiber techniques with emphasis placed on the design process. (F)

ART 13480 - Methods in Secondary School Art (2)

Specific methods used in teaching art and in curriculum planning for secondary school levels. Prerequisites: ART 13180, ART 13280,

ART 13382 and admission into the Professional Education Program. (F)

ART 13495 - Advanced Fibers (3)

Two- and three-dimensional design for advanced fiber techniques with emphasis placed on the design process and aesthetic quality. Prerequisite: ART 13395. (F, S)

ART 13582 - Organization and Supervision of the Art Program (2)

The organization of the total art program within the framework of the educational structure of the school; the functions, role and responsibilities of the supervisor, coordinator and/or single art teacher. Model programs in several school classifications will be examined. Prerequisites: ART 13180, ART 13382 and ART 13480. (SS, alt. years)

ART 13584 - Art Activities in the Elementary School (2)

Activities which develop personal sensitivity and refined consciousness with an emphasis on an active philosophy for creative growth which stresses the importance of art as a personal language. Prerequisite: ART 13382.

ART 13588 - Art in the Senior High School (2)

Studies designed to present the secondary art teacher with an expanded conceptual and practical framework for implementing curricular concerns in studio art, art appreciation, art history, and art criticism. Prerequisite: ART 13480.

Art History

ART 13109 - Survey of Art I: Prehistory through Medieval Art (3)

A survey of painting, sculpture, architecture, and the decorative arts from cave art through the Gothic Period in Europe, in addition to early Islamic, African, Asian, Oceanic art and that of the Americas in their chronology.

ART 13111 - Survey of Art II: Renaissance to the Present (3)

A survey of painting, sculpture, architecture, and the decorative arts from the Renaissance Period to the present in Europe and America, and includes later Islamic, African, Asian, Oceanic art and that of the Americas in their chronology.

ART 13311 - Ancient and Medieval Art (3)

The history of architecture, painting, sculpture, and related arts in Egyptian, Aegean, Greek and Roman civilizations, as well as the Early Christian, Byzantine, Romanesque and Gothic periods. Prerequisite: ART 13109 and ART 13111. (F, odd years)

ART 13312 - Graphic Design History (3)

Graphic Design history since 1890 or the Modernist and Information Era, with some key historical events, technology and persons prior to the 19th century. Includes graphic art developments and how these effected the 1890-1955 era of the emerging industry of graphic design, as well as the rise of digital visual aesthetics. There will be connections made between contemporary art and pivotal schools like the Bauhaus. Studies will link graphic tools like film and later the computer to graphic design. Topics will include print, mass media, typographers, photography, corporate graphics, the internet and post modern reactionary design with accompanying technology. Prerequisite: ART 13111 and ART 13315 (on-line class, SS only).

ART 13313 - Renaissance and Baroque Art (3)

The history of architecture, painting, sculpture and related arts in Europe from the last of the 14th century through the 18th century. Prerequisite: ART 13109 and ART 13111. (S, odd years)

ART 13315 - Nineteenth and Early Twentieth Century Art (3)

A study of the major visual arts in Europe from the latter 18th century to the second decade of the 20th century. Prerequisite: ART 13109 and ART 13111. (S, even years)

ART 13317 - Twentieth Century Art (3)

The development of trends and influences in painting, sculpture, photography, and architecture from the mid-19th Century to the present day. The course will discuss artists and stylistic movements from Realism and Impressionism through contemporary art. Prerequisites: ART 13109, ART 13111 and ART 13315. (F, even years)

ART 13318 - Far Eastern Art (3)

A study of the dominant visual arts of the Far East covering the major cultures and emphasizing the arts of China and Japan. Prerequisite: ART 13109 and ART 13111. (F, even years)

ART 13411 - Special Topics in Art (1 to 4)

This course provides concentrated study in special topics within Art History. Topics vary trimester to trimester. Prerequisite: ART 13109 and ART 13111.

Ceramics

ART 13161 - Ceramics (3)

An introduction to studio pottery through comprehensive experience with clay preparation, basic forming, decorating, glazing methods, and kiln firing procedures at low temperatures. Basic studio work principles and individual design are stressed. (F, S)

ART 13261 - Wheel Throwing and Functional Form (3)

An intermediate level course in ceramics. Emphasis on the fundamentals of working on the potter's wheel and developing understanding of functional ceramic forms. Continued study of the physical properties of ceramic materials. Prerequisite: ART 13161. (S)

ART 13360 - Advanced Ceramics (3)

Continued explorations in materials, processes and studio practice in ceramics. Assigned clay and glaze research as well as research into experimental uses of ceramic materials. Focused studio practice and development are stressed. Prerequisites: ART 13161, ART 13192, ART 13261, advanced standing and permission of instructor. (S)

ART 13369 - Ceramics Studio (2 to 6)

Further cultivation of each student's approach to materials and processes in ceramics. Mature, disciplined studio practice and focused development of a unique and resolved body of work are stressed. Prerequisites: ART 13360 and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. (F, S)

ART 13569 - Ceramics Processes (2 to 6)

Advanced studio work providing students the opportunity to further develop work in ceramics. Study in all phases of studio practice. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. Prerequisite: Permission of instructor. (F, S)

Drawing

ART 13120 - Drawing (3)

An introduction to and the application of basic principles of art in drawing using a variety of media, techniques and subjects. (F, S)

ART 13221 - Life Drawing (3)

Application of the fundamentals of drawing to develop an understanding of creative composition using the human figure. Prerequisite: ART 13120 (art majors must complete with at least a grade of C). (F, S)

ART 13321 - Advanced Drawing (3)

A continued study of the human figure, other subjects and composition. More emphasis given to independent decision making. Prerequisite: ART 13221. (S, SS)

ART 13429 - Drawing Studio (2 to 6)

Advanced exploration of drawing media, techniques, and concepts from representation to abstraction. Prerequisites: ART 13321, advanced standing and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. Art majors must complete with at least a grade of C.(F, S)

ART 13529 - Drawing Processes (2 to 6)

Advanced studio work providing students with opportunities for extended studies in various media and directions. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. Prerequisite: Permission of instructor. (F, S)

Graphic Design

ART 13191 - Introduction to Design (3)

Introduction to two-dimensional design elements and principles, including design objectives, concepts, processes and skills through varied class projects and lecture/demonstration material. (F, S)

ART 13292 - Computer Graphics I (3)

An introduction to digital media for creative imaging using computers, scanners, and digital photography . Appropriate hardware and software exploration for fine art purposes. Prerequisites: ART 13120 and ART 13191 (IDM majors may take concurrently with ART 13191 and are not required to have ART 13120 as a prerequisite; art majors must complete prerequisites with at least a grade of C). (F, S)

ART 13294 - Typography I (3)

This course covers the foundation principles of typography, its history, structure, terminology and contemporary typographic issues. Pre-requisite: ART 13191. Graphic Design majors must pass with at least a grade of C. (F, S)

ART 13392 - Typography 2 (3)

An advanced course in the study of Typography. Type drawing, creation of digital fonts, and creative visual expression using typography is emphasized. Prerequisite ART 13294. (S)

ART 13394 - Computer Graphics 2 (3)

Course covers advanced visual perception principles and computer procedures for creative digital imagery as it applies to interactive and design applications. Prerequisites: ART 13292 and advanced standing. (F)

ART 13396 - Advanced Graphic Design (3)

A course with an intensive approach to the research, creation, clarification, presentation and implementation of identity systems and branding. Prerequisites: ART 13120, ART 13294 and advanced standing. (F)

ART 13398 - Print and Digital Design (3)

Graphic arts and design course for technical print and related media plus advanced interactive media graphics. Equal emphasis on creative problem solving and technical software application. Primary software applications involve desktop publishing and related production software. Prerequisites: ART 13120 and ART 13396. (S)

ART 13401 - Senior Seminar and Portfolio (2)

A seminar for graphic designers, dealing with issues faced by professionals. Major emphasis will be placed on the development of a professional portfolio, understanding business practices, interviewing techniques, resume writing and ancillary collateral materials for the design profession. Prerequisites: junior or senior standing and permission of department chairperson. (F)

ART 13406 - Professional Portfolio Review (1)

Print or digital portfolio preparation and evaluation to include works produced expressly for the portfolio, as well as works previously created. For graphic designers. Prerequisite: ART 13401 or concurrent enrollment. (F, S)

ART 13488 - Package Design (3)

Principles of graphic design applied in three dimensions. Projects explore principles of package design systems, materials, processes, sustainability, etc. Prerequisite: ART 13394 and ART 13396. (S)

ART 13491 - Interactive Design (2)

Interactive art/design theory with practical application of time-based motion and static graphics. Prerequisite: ART 13394 or permission of instructor. (S)

ART 13492 - Advertising Design (3)

The creation of a full-service advertising campaign from research to finished art and presentation. Principles of research, market, consumers, strategy, positioning and branding are emphasized, as well as history and study of contemporary advertising issues. Prerequisite: ART 13221, ART 13396 and ART 13398. (S)

ART 13493 - Interactive Portfolio (1)

Interactive design application of time-based motion and static graphics for CD-ROM portfolios or Web portfolios. Prerequisite: ART 13191, ART 13292, ART 13394, ART 13491. (S)

ART 13497 - 3D Animation (3)

Principles and procedures of creative digital animation. Prerequisite: ART 13394. (S)

ART 13498 - Digital Illustration (3)

This course confronts drawing issues unique to a digital environment. 2D imagery will be the primary spatial focus but the class may also include virtual 3D illustration problems. Descriptive and interpretive drawing will be studied. Digital tools and design applications will be the primary focus. Prerequisites: ART 13120, ART 13221, ART 13292. (F, odd years)

ART 13499 - Design Studio (2 to 6)

Exploration of two- and three-dimensional graphic design processes using a variety of non-traditional materials. Prerequisite: ART 13396 and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. (F, S)

ART 13592 - Internship (2 to 6)

To provide the student with an opportunity to work within a business context, so that the student can gain professional experience that would otherwise not be obtained in regular coursework. Prerequisite: Must be junior/senior level graphic design or IDM-VI

major with a 3.00 GPA. Approval of work site by your instructor is required. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. (F, S, SS)

ART 13599 - Design Processes (2 to 6)

Advanced professional level work in various techniques and directions in graphic design and/or fiber arts. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. Prerequisite: ART 13499 (graphic design) or ART 13495 (fiber arts), and permission of instructor. (F, S)

Painting**ART 13240 - Painting (3)**

A continued study of elements and principles of composition and color perception; synthesis of drawing and painting through work from traditional genre with concern for materials and methods in the use of the oil medium. Prerequisites: ART 13120 and ART 13191 (art majors must complete prerequisites with at least a grade of C). (F, S)

ART 13340 - Advanced Painting (3)

Emphasis on life study and exposure to alternative forms and media combined with an introduction to the conceptual side of painting. Prerequisites: ART 13221, ART 13240 and advanced standing. (F, S)

ART 13343 - Watercolor Painting (3)

An introduction to both transparent and opaque watercolor with emphasis on their unique qualities and expressive potential. Prerequisites: ART 13240 and advanced standing. (F)

ART 13449 - Painting Studio (2 to 6)

Advanced exploration of painting media, techniques and concepts, from representation to abstraction. Prerequisites: ART 13340, advanced standing, and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. Art majors must complete with at least a grade of C. (F,S)

ART 13549 - Painting Processes (2 to 6)

Advanced studio work providing students with opportunities for extended study in various media and directions. Repeatable, up to 6 credit hours, for additional experience,

new material and progression of study.
Prerequisite: Permission of instructor. (F, S)

Photography

ART 13201 - Creative Photography (3)

An introduction to the history of photography and basic darkroom and camera procedures through the exploration of in-darkroom photography. Photography as a creative art and expressive medium will be stressed. (F, S)

ART 13207 - Digital Photography (3)

An introductory creative photography course for students interested in digital media, and for students in the interactive digital media and graphic design majors. Students will explore contemporary applications of visual space and plastic form through the medium of electronic photography. Not for art majors. (F, S, SS)

ART 13303 - Advanced Creative Photography (3)

A continuance of ART 13201. Each student will direct work toward developing a personal expressive approach to photography. The study of contemporary photographers and criticism will be stressed. Studio lighting, Photoshop, digitally scanning film, and making digital prints is introduced. Prerequisites: ART 13201 and advanced standing. (F, S)

ART 13305 - Advanced Digital Photography (3)

An exploratory continuation of creative photography with an emphasis on advanced digital photography, software, and printing applications. Photography as an art and expressive medium will be stressed. Prerequisites: ART 13303 or ART 13207 and advanced standing. (S)

ART 13309 - Photography Studio (2 to 6)

Directed study and exploration of black and white, color, non-traditional and/or digital photography. Prerequisites: ART 13303 and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. (F, S)

ART 13509 - Photography Processes (2 to 6)

Advanced directed studies in various techniques in black and white or digital photography. Repeatable, up to 6 credit hours, for additional experience, new

material and progression of study.
Prerequisite: Permission of instructor. (F, S)

Printmaking

ART 13333 - Printmaking (3)

An introduction to traditional and contemporary pursuits of intaglio printmaking including color monotype, etching and engraving processes. Prerequisites: ART 13120 and ART 13221. (F, S)

ART 13439 - Printmaking Studio (2 to 6)

Directed study in traditional or experimental techniques in selected media. Prerequisites: ART 13333, advanced standing and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. (F)

ART 13539 - Printmaking Processes (2 to 6)

Advanced directed studies in various media, techniques, and directions. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. Prerequisite: Permission of instructor. (F, S)

Sculpture/Three-Dimensional Design

ART 13150 - Jewelry and Metalsmithing (3)

This course is designed as an introduction to the language and techniques of jewelry and metalsmithing. During the course, students will focus on techniques and design concepts that deal primarily with the process of small-scale metal fabrication. Emphasis will be placed on jewelry and metalsmithing as an art form, not a means for production. (F)

ART 13192 - Three-Dimensional Design (3)

An introduction to the fundamentals of three-dimensional design explored through assigned problems and a variety of construction methods. Prerequisites: ART 13120 and ART 13191 (completed with at least a grade of C for art majors). (F, S)

ART 13270 - Sculpture (3)

An introduction to the basic concepts and techniques utilized in the production of sculpture, including additive/subtractive methods, welding, and site installation. Prerequisite: ART 13192 (completed with at least a grade of C for art majors). (F, S)

ART 13470 - Advanced Sculpture (3)

An introduction to concepts and techniques beyond those explored in ART 13270. Emphasis will be on the execution of ideas

and development of the student's artistic direction. Prerequisites: ART 13270 and advanced standing. (S)

ART 13479 - Sculpture Studio (2 to 6)

Designed to allow students to focus more comprehensively on a particular direction or technique utilized in the production of sculpture. Discussions and assigned research on contemporary modes in sculpture. Prerequisites: ART 13470 and permission of instructor. Repeatable, up to 15 credit hours, for additional experience, new material and progression of study. (F, S)

ART 13579 - Sculpture Processes (2 to 6)

Advanced studio work facilitated through discussions on contemporary concepts in sculpture, directed research and group critiques. Emphasis on student's understanding of the content of his/her work and where that fits into the continuum of sculpture. Repeatable, up to 6 credit hours, for additional experience, new material and progression of study. Prerequisite: Permission of instructor. (F, S)

BIOL - Biological Sciences

BIOL 04102 - General Biology (3)

A general course in biology providing a broad understanding of the basic principles of biological science such as cells, energy production, photosynthesis, genetics, plant and animal physiology, ecology, environmental issues, and diversity. Upon completion, students will understand the relationship between living organisms and their environment and make more informed decisions regarding issues facing our society. Must co-register in BIOL 04103. Three hours of lecture per week. (F, S, SS)

BIOL 04103 - General Biology Laboratory (1)

A two-hour laboratory which must be taken concurrently with BIOL 04102 (F, S, SS)

BIOL 04104 - Medical Terminology (3)

Medical terms encountered in the anatomy, physiology and surgical procedures of the life support systems. (F, S)

BIOL 04106 - Principles of Biology (3)

A course designed for students who want more advanced study in the biological sciences which provides a broad survey of the fundamental principles of living systems, including their nature, processes, organization, and evolution. This course

covers topics basic to the study of biology, including chemistry of biomolecules, prokaryotic and eukaryotic cell structure and function, cell division, classical and molecular genetics, evolutionary theory, general taxonomic classification, ecological principles, as well as the process of scientific inquiry. Three hours of lecture per week. Must be taken concurrently with BIOL 04107 (F,S)

BIOL 04107 - Principles of Biology Laboratory (1)

A two hour companion laboratory which must be taken concurrently with BIOL 04106. (F, S)

BIOL 04110 - Theory and Practice of Emergency Medical Techniques (4)

Theory and clinical practice which allows one to gain and apply knowledge about the life support systems encountered in emergency medical situations. Students will be presented symptoms, treatment, practical experience and use of emergency medical equipment. This course is approved and partially funded by the Missouri Bureau of Emergency Medical Services. (F, S)

BIOL 04111 - Emergency Medical Technician (2)

A brief refresher of BIOL 04110 which serves as a refresher course for those seeking to be re-licensed as emergency medical technicians. Funded in part by the Missouri Bureau of Emergency Medical Services. (F, S)

BIOL 04112 - General Botany (3)

A fundamental study of plants and plant-like organisms. Topics include structure, physiology, evolution, diversity, classification, ecology and economic importance. Must co-register for BIOL 04113. Prerequisites: BIOL 04106 and BIOL 04107 with a minimum of grade of C. Three hours of lecture per week. (F, S, SS)

BIOL 04113 - General Botany Laboratory (1)

A two-hour laboratory which must be taken concurrently with BIOL 04112. (F, S, SS)

BIOL 04114 - General Zoology (3)

An introductory course on the life histories of animals taught using an evolutionary paradigm. Topics covered include taxonomy, diversity, anatomy, physiology, ecology, and reproductive strategies of major animal and protozoan clades. Must co-register for BIOL 04115. Three hours of lecture per week.

Prerequisites: BIOL 04106 and BIOL 04107 with a minimum grade of C. (F, S, SS)

BIOL 04115 - General Zoology Laboratory (1)

Two-hour laboratory which must be taken concurrently with BIOL 04114. (F, S, SS)

BIOL 04140 - General Microbiology (4)

A study of the morphology, physiology and cultivation of microorganisms. Studies on diversity, ecology, pathogenicity, fundamentals of immunology, applied microbiology and laboratory techniques will be included. Two hours of lecture and four hours of laboratory per week. Prerequisites: BIOL 04106 and BIOL 04107, or BIOL 04102 and BIOL 04103 with a minimum grade of C, and CHEM 24114 and CHEM 24115. Pre-nursing and dietetics students may substitute CHEM 24112 and CHEM 24113. (F, S)

BIOL 04210 - Current Topics in Biology (1 to 3)

Each current topic is specifically designed to address a timely topic in biology. Repeatable for additional experience, new material and progression of study.

BIOL 04236 - Anatomy Allied Health (4)

An introduction to the anatomy of the human body, including cells, tissues, organs, and organ systems. Comprehension is emphasized over memorization, but some basic terminology is also presented. This course is designed for beginning students in the allied health sciences, such as pre-nursing and pre-radiology. Prerequisites: BIOL 04102 and BIOL 04103 or BIOL 04106 and BIOL 04107, and CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115 (F).

BIOL 04238 - Physiology Allied Health (4)

The study of human physiological processes from the perspective of an allied health professional. Topics include muscle, nervous, cardiovascular, respiratory, renal, gastrointestinal, reproductive and endocrine physiology. Physiological responses to important medications and patient nutrient status will be emphasized. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL 04102 and BIOL 04103 or BIOL 04106 and BIOL 04107 and CHEM 24112 and CHEM 24113 or CHEM 24114 and CHEM 24115. (S)

BIOL 04261 - Local Flora (2)

A two-hour laboratory course designed to acquaint the student with plants of this

region and their classification. Prerequisite: BIOL 04112 and BIOL 04113 with a minimum grade of C. (F)

BIOL 04293 - Medical Transcription and Medical Records Practicum (2)

The practicum consists of the American Medical Association's Medical Transcription Course which is a programmed study and directed practice in the medical records department. The directed practice includes experiences in admitting procedures, dismissing procedures, insurance forms, coding diseases and operations, medical record completion (inspecting charts for deficiencies), filing and computer data processing form completion. Two hours of lecture per week. (F, S)

BIOL 04301 - Internship: Cellular Biology (1 to 3)

Each student will be supervised and be an active participant in an area of microbiology, cellular biology, or genetics. 64 hours of work will be required for each hour of credit. A professional paper describing the supervised experience will be required. By permission only. Three hours of internship may be counted towards the major or minor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04302 - Internship: Organismal Biology (1 to 3)

Each student will be supervised and be an active participant in an area of health care, anatomy, botany, entomology, physiology or zoology. 64 hours of work will be required for each hour of credit. A professional paper describing the supervised experience will be required. By permission only. Three hours of internship may be counted towards the major or minor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04303 - Internship: Ecological Biology (1 to 3)

Each student will be supervised and be an active participant in an area of ecology, environmental science, or wildlife conservation. 64 hours of work will be required for each hour of credit. A professional paper describing the supervised experience will be required. By permission only. Three hours of internship may be counted towards the major or minor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04307 - Environmental Internship (1 to 3)

Students will be placed in a work setting and become an active participant in an environmental area. Sixty-four hours of on-site work plus a written report will be required. Prerequisite: Permission of instructor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04310 - Cell Biology (4)

An introduction to the fundamentals of cellular structure and function. Cell physiology, molecular biology, cellular organelles, energy relationships and reproduction of cells are included. Three hours of lecture and three hours of laboratory per week. Required prerequisites: BIOL 04106 and BIOL 04107, CHEM 24114 and CHEM 24115 and CHEM 24116 and CHEM 24117 all with a minimum grade of C and sophomore standing. Recommended prerequisites: CHEM 24342 and CHEM 24343. (F, S)

BIOL 04312 - Invertebrate Zoology (4)

A systematic treatment of major invertebrate phyla, classes and other groups, including taxonomic, anatomical, physiological, embryological and ecological features. Two hours of lecture and two two-hour laboratories per week. Prerequisite: BIOL 04114 and BIOL 04115 with a minimum grade of C. (S)

BIOL 04318 - Principles of Taxonomy and Evolution (4)

A study of the origin and diversity of life as well as both animal and plant classifications. Studies include contemporary systematic approaches, construction of keys, international rules of nomenclature, evolutionary principles, and origin of species. Two hours of lecture and four hours of laboratory per week. Prerequisites: BIOL 04112 and BIOL 04113 and BIOL 04114 and BIOL 04115 with a minimum grade of C. (S, even years)

BIOL 04330 - Animal Anatomy and Physiology (4)

Introductory course dealing with basic anatomy and physiology of major animal groups. This course is taught using a systems-based approach, with emphasis on how anatomy and physiology correlates with the ecology, behavior, and basic life history of animals. Three hours of lecture and two hours of laboratory per week. Prerequisites:

BIOL 04114 and BIOL 04115 and CHEM 24114 and CHEM 24115 with a minimum grade of C. (S)

BIOL 04348 - Biological Evolution and Diversity (2)

A scientific survey of fundamental aspects of biological evolution and diversity. Topics covered include, but are not limited to, history of evolutionary thought, models of evolution, diversification, species concepts, adaptation and selection, and biogeography. These subjects will be illustrated with examples from the natural world, including prokaryote, protozoan, fungal, plant, and animal divisions of life. Prerequisites: BIOL 04112 and BIOL 04113 and BIOL 04114 and BIOL 04115.

BIOL 04350 - Genetics (4)

An introduction to the fundamental facts and principles of inheritance including molecular genetics, quantitative genetics, population genetics, and evolutionary genetics. Three hours of lecture and two hours of laboratory per week. Prerequisites: BIOL 04106 and BIOL 04107 with a minimum grade of C and sophomore standing or permission of instructor. (F, S)

BIOL 04362 - Mammalogy (4)

A study of mammals with emphasis upon their classification, identification, evolution, life histories, ecology, habits, anatomy, physiology, and economic values. One hour lecture and two three-hour laboratories per week. Prerequisite: BIOL 04112 and BIOL 04113, and BIOL 04114 and BIOL 04115 with a minimum grade of C. (F)

BIOL 04364 - Ornithology (4)

A study of the habitats, life histories, structure, functions, evolution, ecology, classification and identification of the birds found primarily in this region. One hour lecture and three-hour laboratories per week. Prerequisite: BIOL 04112 and BIOL 04113 and BIOL 04114 and BIOL 04115 with a minimum grade of C. (S)

BIOL 04366 - Entomology (3)

An introduction to the world of insects: their structure and function, numbers, classification, life history, behavior, ecology and their relationship to humans. Two hours of lecture and one two-hour laboratory per week. Prerequisite: BIOL 04112 and BIOL 04113, and BIOL 04114 and BIOL 04115 with a minimum grade of C. (F)

BIOL 04376 - Basic Ecology (4)

A basic study in ecological field techniques and ecological theory. Three hours of lecture and one three-hour laboratory per week. Prerequisites: BIOL 04112 and BIOL 04113 and BIOL 04114 and BIOL 04115 with a minimum grade of C or permission of instructor. (F)

BIOL 04383 - Biology Practicum (1)

Instruction and practical experience in development, teaching and the preparation of introductory biology laboratories. Coordinated by the bioscience coordinator. BIOL 04483 may be taken for an additional practicum credit. One laboratory section per week. Prerequisites: BIOL 04112 and BIOL 04113, BIOL 04114 and BIOL 04115 and junior standing or permission of instructor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04401 - Research: Cellular Biology (1 to 3)

This course is designed to give students experience in planning, conducting and presenting an undergraduate research project under the direction of a department faculty member. Topics may include, but are not limited to, microbiology, physiology, cell biology and genetics. Repeatable for additional experience, new material and progression of study. Students may take up to 9 hours of research (BIOL 04401, BIOL 04402, and BIOL 04403) and internship (BIOL 04301, BIOL 04302, BIOL 04303) combined. (F, S)

BIOL 04402 - Research: Organismal Biology (1 to 3)

This course is designed to give students experience in planning, conducting and presenting an undergraduate research project under the direction of a departmental faculty member. Topics may include, but are not limited to, anatomy, botany, entomology, and zoology. Repeatable for additional experience, new material and progression of study. Students may take up to 9 hours of research (BIOL 04401, BIOL 04402 and BIOL 04403) and internship (BIOL 04301, BIOL 04302, BIOL 04303) combined. (F, S)

BIOL 04403 - Research: Ecological Biology (1 to 3)

This course is designed to give students experience in planning, conducting and presenting an undergraduate research project under the direction of a departmental faculty member. Topics may

include, but are not limited to, ecology, environmental science, and wildlife conservation. Repeatable for additional experience, new material and progression of study. Students may take up to 9 hours of research (BIOL 04401, BIOL 04402 and BIOL 04403) and internship (BIOL 04301, BIOL 04302, BIOL 04303) combined. (F, S)

BIOL 04412 - Plant Anatomy and Morphology (4)

A study of the development, structure and function of plant tissues and organs, as well as the form and structure of extinct plant groups found in the fossil record. Primary emphasis on vegetative and reproductive organs of gymnosperms and angiosperms. Two hours of lecture and four hours of laboratory per week. Prerequisites: BIOL 04112 AND BIOL 04113, and BIOL 04114 and BIOL 04115 with a minimum grade of C. (S, alt. years)

BIOL 04418 - Vertebrate Histology (5)

The study of vertebrate tissues and organs. Laboratory consists of a microscopic study of cells, tissues, organs and organ systems. Two hours of lecture and six hours of laboratory per week. Prerequisite: BIOL 04435 OR BIOL 04436 with a minimum grade of C. Recommended prerequisite: BIOL 04310. (S)

BIOL 04420 - Environmental Issues (4)

An overview of the science, politics and sociology of current environmental issues, including pollution, wastes, ozone depletion, acidic precipitation, greenhouse effect, deforestation, water use, energy and population. Prerequisites: BIOL 04106 and BIOL 04107 with a minimum grade of C and CHEM 24114 and CHEM 24115. Three hours of lecture plus one two-hour lab per week. (S)

BIOL 04429 - Problems in Cellular/Molecular/Microbial Biology (1 to 3)

Focused study of a topic chosen by the student and faculty member. Topics may include, but are not limited to, microbiology, cell biology and genetics. Permission of instructor necessary. Repeatable for additional experience, new material and progression of study.

BIOL 04430 - Plant Physiology (4)

A study of the chemical and physical processes involved in the growth and functioning of plants. Major topics include water relations, metabolic processes, and regulators of growth and development.

Content includes material at the molecular, cellular, and organismal level. Three hours lecture and three hours laboratory per week. Prerequisites: BIOL 04112 and BIOL 04113, or BIOL 04310 or BIOL 04350, and CHEM 24114 and CHEM 24115 with a minimum grade of C. (S, even years)

BIOL 04435 - Comparative Anatomy (5)

An advanced course designed to familiarize students with fundamental and in-depth aspects of anatomy, evolution, and functional morphology in vertebrate animals. Laboratory includes hands-on dissection and examination of all major body systems in selected vertebrates. Two hours of lecture and six hours of lab per week. Prerequisites: BIOL 04114 and BIOL 04115 with a minimum grade of C and PHYS 25110 and PHYS 25111 OR PHYS 25120 and PHYS 25121 or permission of instructor. (F)

BIOL 04436 - Human Anatomy (4)

The systematic study of human anatomy, including the skeletal, muscular, cardiovascular, digestive, respiratory, urinary, endocrine, reproductive, and integumentary systems. Three hours of lecture and two hours of laboratory per week. Prerequisites: BIOL 04114 and BIOL 04115 with a minimum grade of C. Recommended prerequisite: BIOL 04104 (F, S)

BIOL 04438 - Human Physiology (4)

The study of the physiological processes of humans, including membranes, muscle, nervous, cardiovascular, respiratory, renal, gastrointestinal, endocrine and reproductive physiology. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 04310 with a minimum grade of C. Recommended prerequisites: BIOL 04104 and either BIOL 04236 or BIOL 04432 or BIOL 04436. (F,S)

BIOL 04439 - Problems in Organismal Biology (1 to 3)

Focused study of a topic chosen by the student and faculty member. Topics may include, but are not limited to, anatomy, botany, entomology, physiology, and zoology. Permission of instructor necessary. Repeatable for additional experience, new material and progression of study.

BIOL 04440 - Molecular Biology (4)

An advanced course that explores the molecular structures, processes, and regulatory mechanisms related to DNA, RNA,

protein expression and function. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 04350 with a minimum grade of C. Recommended prerequisites: BIOL 04140, BIOL 04310. (S, odd years)

BIOL 04444 - Immunology (5)

Principles of immunology: to include antigen-antibody relationships, host-antigen interaction, immunocytology, humoral and cellular response mechanisms, and serologic reactions. Two hours of lecture and six hours of laboratory per week. Prerequisites: BIOL 04140 and CHEM 24114 and CHEM 24115 with a minimum grade of C or permission of instructor. (S)

BIOL 04460 - Herpetology (4)

Anatomy, physiology, taxonomy, distribution, life history and ecology of amphibians and reptiles, emphasizing those in Missouri. One hour of lecture and two three-hour laboratories per week. Prerequisite: BIOL 04114 and BIOL 04115 with a minimum grade of C. (S)

BIOL 04463 - Introduction to Bioinformatics (3)

This will be a general introduction to bioinformatic tools and analytics. We will cover aspects of nucleic-acid and protein-sequence comparisons, assembly/annotation of small genomes, metabolic modeling of genomes, comparative genomics, phylogenetics and computational biology. The course will consist of two hours of lecture and two hours of lab per week. Prerequisites: BIOL 04310 and BIOL 04350. (S)

BIOL 04470 - Readings in Ecology (2)

Directed reading in ecology. Designed to acquaint the student with both historical and current developments in animal and plant ecology. Two hours of discussion per week. Prerequisites: BIOL 04376 with a minimum grade of C and senior standing. Repeatable for additional experience, new material and progression of study. (S, odd years)

BIOL 04474 - Wildlife Management and Conservation (2)

A course designed to apply field and laboratory techniques to the management of game and nongame wildlife resources; management emphasis will entail conservation practices with consideration for threatened, rare and endangered species. Professionally written papers are required.

One hour of lecture and three hours of laboratory per week. Prerequisites: BIOL 04112 and BIOL 04113, BIOL 04114 and BIOL 04115, BIOL 04261, and BIOL 04376 with a minimum grade of C and senior standing, or consent of instructor. (F)

BIOL 04478 - Readings in Molecular Biology (2)

Directed readings in advances and techniques in molecular biology. Prerequisites: BIOL 04310, BIOL 04440 with a minimum grade of C. Repeatable for additional experience, new material and progression of study. (F, alt. years)

BIOL 04479 - Problems in Ecological/Evolutionary Biology (1 to 3)

Focused study of a topic chosen by the student and faculty member. Topics may include, but are not limited to ecology, environmental science, and wildlife conservation. Permission of instructor necessary. Repeatable for additional experience, new material and progression of study.

BIOL 04483 - Advanced Biology Practicum (1)

An advanced course in practical procedures of instruction and preparation in biological laboratories. A maximum of two semester hours in advanced biology practicum courses is allowed. Prerequisite: Successful completion of assigned course that the student teaches as lab assistant plus consent of instructor. Repeatable for additional experience, new material and progression of study. (F, S, SS)

BIOL 04489 - Problems in Biological Education (1 to 3)

Permission of instructor necessary. Prerequisites: BIOL 04112 and BIOL 04113 and BIOL 04114 and BIOL 04115 with a minimum grade of C. Repeatable for additional experience, new material and progression of study.

BIOL 04491 - Biological Science Seminar (1)

Individual reports and group discussion of problems and current research in biological sciences. Repeatable for additional experience, new material and progression of study. A maximum of two semester hours is allowed. Prerequisite: BIOL 04350 and senior standing in major or minor (F, S)

BIOL 04500 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

BIOL 04510 - Current Topics in Biology (1 to 3)

Each course is specifically designed to address a timely topic in biology. Repeatable for additional experience, new material and progression of study.

BIOL 04511 - Techniques in Biotechnology (4)

A studio course dedicated to hands-on experience with common techniques used in the field of biotechnology. Theory and practical experience will be provided for techniques in DNA isolation and manipulation, gene cloning, library screening, molecular detection, and protein expression, genomic analysis and bioinformatics. In addition, students will be exposed to current topics and ethical considerations in the biotechnology industry. Two three-hour studio sessions per week with additional independent laboratory work required. Prerequisite: BIOL 04350 with a minimum grade of C. Recommended prerequisite: BIOL 04140. (F)

BIOL 04576 - Methods in Plant and Animal Ecology (3)

A studio course that provides a balanced survey of a variety of field techniques involving data collection or simulation and analysis of plant and animal populations and communities. Laboratory and field exercises will focus on critical thinking and problem-solving. This course is NOT designed to emphasize ecological theory nor scientific writing although aspects of each are included. Six hours of studio course times per week. Prerequisite: BIOL 04376; MATH 17114 for science majors highly recommended. (F, first block)

Gulf Coast Research

The following courses are not taught on the Northwest campus, but at the accredited Gulf Coast Research Center.

BIOL 04351 - Marine Science I: Oceanography (3)

An introductory course in oceanography which integrates chemical, geological and physical oceanography to provide fundamentals of oceanography at Gulf Coast Research Laboratory. Prerequisites: BIOL

O4106 and BIOL 04107 with a minimum grade of C and CHEM 24114 and CHEM 24115. (SS)

BIOL 04352 - Marine Science II: Marine Biology (3)

A general introduction to marine biology with emphasis on local fauna and flora at Gulf Coast Research Laboratory. Prerequisites: BIOL 04106 and BIOL 04107 with a minimum grade of C and BIOL 04114 and BIOL 04115 OR BIOL 04112 and BIOL 04113 with a minimum grade of C. (SS)

BIOL 04353 - Marine Science Laboratory I (2)

Field and laboratory exercises that accompany BIOL 04351, consisting of various sampling techniques, analytical methods, data analyses, chart reading, and shipboard procedures. Must co-register in BIOL 04351. (SS)

BIOL 04354 - Marine Science Laboratory II (2)

Field and laboratory exercises that accompany BIOL 04352, consisting of various sampling techniques, species identification, data analyses, chart reading, and shipboard procedures. Must co-register in BIOL 04352. (SS)

BIOL 04541 - Marine Botany (4)

A survey based upon local examples of the principal groups of the marine algae and marine flowering plants, treating structure, reproduction, distribution, identification and ecology at Gulf Coast Research Laboratory. Prerequisite: 10 hours of botany. Upper-level undergraduate and graduate credit. (SS)

BIOL 04549 - Marine Microbiology (5)

Microbiology and advanced microbiology students are introduced to the role of the microorganisms in the overall ecology of oceans and estuaries at Gulf Coast Research Laboratory. Prerequisite: General microbiology and environmental microbiology or consent of instructor. Upper-level undergraduate and graduate credit. (SS)

BIOL 04450 - Coastal Ornithology (3)

An introductory, field-oriented ornithology course that explores the highly diverse avian habitats found along the Mississippi Gulf Coast, emphasizing field ecology and behavior. Lectures, laboratory exercises, and field trips will introduce students to techniques including bird-banding, call-broadcast surveys, and other monitoring

methodologies. Prerequisites: two semesters of biology or permission of instructor; a course in general ecology is recommended.

BIOL 04451 - Dolphin and Whale Behavior (3)

Students will learn tools and techniques used in the systematic observation and documentation of dolphin and whale behavior in the wild. Course includes both classroom lecture and field studies focused primarily on dolphins of the Mississippi Sound. Prerequisites: two semesters of biology or permission of instructor. (SS)

BIOL 04453 - Shark Biology (3)

An overview of elasmobranch biology with an emphasis on anatomy, physiology, and ecology of sharks, skates and rays. Lecture will cover such topics as diversity, evolution, anatomy and physiology, behavior, ecology, and fisheries management. Must co-register in BIOL 04454. Prerequisites: three semesters of biology including Marine Biology BIOL 04352 and BIOL 04354. (SS)

BIOL 04454 - Shark Biology Laboratory (2)

The laboratory will consist of elasmobranch identification and taxonomy, as well as anatomy and physiology through animal dissection. Several field trips will be taken to expose students to the various collecting methods used in field research. Must co-register in BIOL 04453.

BIOL 04455 - Marine Mammals (3)

An overview of the biology of marine mammals (cetaceans, pinnipeds, sirenians, otters, and polar bear) including evolution and systematics, zoogeography, aquatic adaptations, life history and reproduction, population dynamics, diet and feeding, diving physiology and additional topics. Must co-register in Marine Mammals Lab. Prerequisites: Three semesters of biology including marine biology or marine ichthyology or permission of instructor. (SS)

BIOL 04456 - Marine Mammals Laboratory (2)

A companion field and lab course for Marine Mammals, emphasizing field identification and techniques. Must co-register in BIOL 04455 Marine Mammals. (SS)

BIOL 04457 - Barrier Island Ecology (1)

This course will familiarize students with concepts of coastal ecology with emphasis on the diversity of plant and animal communities unique to the northern Gulf of

Mexico barrier island ecosystem. Must co-register in BIOL 04458. Prerequisites: three semesters of science or permission of instructor. (SS)

BIOL 04458 - Barrier Island Ecology Laboratory (2)

This course consists of field excursions to barrier islands off Mississippi and Florida coasts. Habitats to visit will include marsh and barrier island vegetation, aquatic and terrestrial invertebrates, mammals, birds and reptiles, brackish pond and lagoon communities, submerged seagrass communities, intertidal and shallow subtidal communities. Geologic processes and island dynamics will also be explored. Must co-register in BIOL 04457. (SS)

BIOL 04471 - Environmental Photography (3)

A course that develops an awareness of our environment through the medium of photography. Subjects include the structure and function of ecosystems, especially aquatic ones. Frequent field trips focus on selected environmental concerns. Lecture and practice will emphasize interrelationships at macroscopic and microscopic levels. Although no formal coursework is prerequisite, it is expected that students will have a basic awareness of environmental issues. (SS)

CHEM - Chemistry

CHEM 24112 - General Chemistry (3)

Beginning course for those who did not take chemistry in high school. Must be taken concurrently with CHEM 24113. Serves as a refresher course for science majors and satisfies the general laboratory physical science requirement. Involves a study of elements, compounds and fundamental chemical laws. Three hours of lecture and recitation per week. Prerequisite: High school algebra. (F, S)

CHEM 24113 - General Chemistry Laboratory (1)

Beginning laboratory course which must be taken concurrently with CHEM 24112 lecture. Two hours of laboratory and recitation. (F, S)

CHEM 24114 - General Chemistry I (3)

Beginning course for science majors with a good high school background in chemistry. Must be taken concurrently with CHEM 24115. This course covers fundamental chemical principles such as atoms, molecules,

chemical reactions, stoichiometry, and gas laws as it progresses towards detailed study of quantum chemistry, periodic relationships, and molecular structure and properties. Three hours of lecture and recitation per week. Prerequisite: High school algebra. (F, S)

CHEM 24115 - General Chemistry I Laboratory (1)

Laboratory course which must be taken concurrently with CHEM 24114. Three hours of laboratory and recitation. (F, S)

CHEM 24116 - General Chemistry II (4)

A continuation of CHEM 24114. Must be taken concurrently with CHEM 24117. Four hours of lecture and recitation. This course involves a study of kinetics, principles of equilibrium and thermodynamics. Prerequisite: CHEM 24114 and CHEM 24115 with a minimum grade of C. (F, S)

CHEM 24117 - General Chemistry II Laboratory (1)

Laboratory course which must be taken concurrently with CHEM 24116. One three-hour period of laboratory and recitation per week. (F, S)

CHEM 24135 - Laboratory Safety (2)

A comprehensive introduction to the protocols and practices for working safely in a modern chemistry laboratory. The course seeks to facilitate students' awareness of safe practices for chemical handling and disposal, potential hazards, emergency response and personal protection. Two hours of lecture/lab per week. Prerequisites: CHEM 24114 and CHEM 24115 with a minimum grade of C. (S)

CHEM 24200 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

CHEM 24211 - Special Topics in Chemistry (1 to 3)

In-depth study of special topics which may include environmental chemistry, atomic and molecular structure, kinetics, industrial chemistry, polymer chemistry, computer applications in the laboratory, surface chemistry and colloidal chemistry. Can be repeated with different topics. Prerequisites: CHEM 24114 and CHEM 24115 with a minimum grade of C.

CHEM 24242 - Organic Chemistry (3)

An introductory course in general organic chemistry designed for students majoring in fields other than chemistry who desire a general course. The carbon compounds, together with their relations to the life processes, are covered in this course. Must be taken concurrently with CHEM 24243. Three hours of lecture. Prerequisite: CHEM 24112 or CHEM 24114 with a minimum grade of C. (F)

CHEM 24243 - Organic Chemistry

Laboratory (1)

Laboratory course which must be taken concurrently with CHEM 24242. Three hours of laboratory and recitation. (F)

CHEM 24300 - Special Offering (1 to 4)

CHEM 24322 - Analytical Chemistry (3)

This course involves a study of the theory, methods and techniques for the quantitative separation and determination of the amounts of materials present in certain natural and manufactured products. Three hours of lecture and recitation. Must be taken concurrently with CHEM 24323. Prerequisites: CHEM 24116 and CHEM 24117 with a minimum grade of C. (F)

CHEM 24323 - Analytical Chemistry

Laboratory (2)

Laboratory course which must be taken concurrently with CHEM 24322. Two three-hour periods of laboratory and recitation per week. (F)

CHEM 24324 - An Introduction to Forensic Science (3)

This course covers the basic techniques used to analyze forensic evidence. Basic concepts of chemistry, biology, and physics are used to understand how forensic science techniques function. The interdisciplinary nature of forensic science problems is emphasized. Prerequisite: One year of college chemistry or permission of instructor.

CHEM 24342 - Organic Chemistry I (3)

This is a general course in organic chemistry for students majoring in chemistry. It must be taken concurrently with CHEM 24343. Three hours of lecture and recitation. Prerequisite: CHEM 24116 and CHEM 24117 with a minimum grade of C. (F)

CHEM 24343 - Organic Chemistry I

Laboratory (2)

Laboratory course in organic chemistry which must be taken concurrently with CHEM 24342. (F)

CHEM 24344 - Organic Chemistry II (3)

This is a continuation of CHEM 24342. Three hours of lecture and recitation. Prerequisite: CHEM 24342 with a minimum grade of C. (S)

CHEM 24345 - Organic Chemistry II

Laboratory (2)

This course involves a study of the qualitative determination of functional groups and identification of compounds by gas chromatography, infrared spectroscopy and nuclear magnetic resonance. Two three-hour laboratory periods per week. Prerequisite: CHEM 24343 with a minimum grade of C. (S)

CHEM 24362 - Elementary Biochemistry (3)

A non-rigorous treatment of selected aspects of biologically oriented chemistry. Emphasis will be on acquainting the student with many of the substances of which living organisms consist, with their interrelationships, and with some of the better known biochemical changes which they undergo. Must be taken concurrently with CHEM 24363. Prerequisite: CHEM 24242 or CHEM 24342. (S)

CHEM 24363 - Elementary Biochemistry

Laboratory (1)

This is a laboratory course to be taken concurrently with CHEM 24362. One three-hour period per week will be used for laboratory amplification of topics presented in CHEM 24362. (S)

CHEM 24364 - Forensic DNA Science (3)

Covers the theory and techniques used to analyze DNA in forensic evidence. Basic concepts of chemistry and biology are used to understand how DNA analysis functions. Emphasis will be on collecting specimens, isolating and analyzing DNA, and statistical analysis to link the specimen to individual. Two hours of lecture and three hours of laboratory per week. Prerequisites: CHEM 24242 or any General Chemistry with permission of instructor.

CHEM 24370 - Chemistry Practicum (1 to 3)

The practicum provides students with experience in teaching a chemistry laboratory. Students will assist faculty with the preparation and instruction of chemistry labs. Can be repeated for new experience. (F, S)

CHEM 24400 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

CHEM 24435 - Chemistry Internship (1 to 3)

Students with junior or senior standing with a major or minor in chemistry may enroll in an intern program (paid or unpaid) with a chemical or pharmaceutical company or for an academic research experience. Student must have advanced standing, permission of the instructor and department chairperson and must prepare a written proposal at the time of registration. A minimum of 50 hours of work per credit hour is required. Can be repeated for new experience. Prerequisite: Permission of instructor and department chairperson. (F, S, SS)

CHEM 24436 - Medicinal Chemistry I (3)

Students are shown how to predict the solubilities, structure-activity relationships, basic synthesis routes for selected structures, metabolism and pharmacological activity/potency of drug classes and individual members of classes based on the contribution of their functional groups to their structures. Prerequisite: CHEM 24344 with a minimum grade of C. Recommended prerequisite: CHEM 24562. (S,SS)

CHEM 24438 - Medicinal Chemistry II (3)

This is a continuation of CHEM 24436. Prerequisite: CHEM 24436 with a minimum grade of C. (F, SS)

CHEM 24450 - Macromolecular Structure (4)

Covers modern methods that have defined the molecular basis for macromolecular interactions and their function in biochemistry. Emphasis focuses on the physical principles of macromolecular structure and interactions, and will describe modern methods. Prerequisites: CHEM 24562 and CHEM 24563.

CHEM 24499 - Special Investigations in Chemistry (1 to 3)

Special projects and experiments in chemistry which are not included in the regular coursework. May be selected successively for one or more hours of credit per trimester to a maximum credit of three hours. A minimum of 50 hours of work per credit hour is required. Can be repeated for new experience. Prerequisite: Permission of instructor. (F, S, SS)

CHEM 24500 - Special Offering (1 to 4)

One-time special offering in chemistry. Repeatable for additional experience, new material and progression of study.

CHEM 24520 - Protein Chemistry (4)

A course dedicated to the study of advanced topics in protein chemistry and function. Topics related to determination of protein structure, protein folding, the connection of protein structure and function, enzymology, and protein purification will be investigated. Three hours of lecture and three hours of lab per week. Prerequisites: CHEM 24562 and CHEM 24563 with a minimum grade of C, or permission of instructor. (S, alt. years)

CHEM 24522 - Instrumental Analysis (2)

A study of modern techniques and theories of analysis including an introduction to basic instrumental analysis. Must be taken concurrently with CHEM 24523. Two hours of laboratory and recitation per week. Prerequisite: CHEM 24322 and CHEM 24323 with a minimum grade of C. (S, even years)

CHEM 24523 - Instrumental Analysis Laboratory (2)

Must be taken concurrently with CHEM 24522. Two three-hour laboratory periods per week. (S, even years)

CHEM 24532 - Physical Chemistry I (3)

The study of atomic and molecular phenomena through the scrutiny and interpretation of the physical laws that govern the structure and behavior of matter as it exchanges energy within and between itself and its surroundings in the atomic and molecular domains. Topics include the foundation of quantum chemistry, atomic and molecular structure, spectroscopy, and computational chemistry. It is strongly suggested that CHEM 24532 be taken prior to CHEM 24534. Prerequisites: CHEM 24116 and CHEM 24117 with a minimum grade of C, PHYS 25120 and MATH 17121.

CHEM 24533 - Physical Chemistry I Laboratory (1)

Laboratory course in physical chemistry that must be taken concurrently with CHEM 24532. Prerequisites: CHEM 24116 and CHEM 24117 with a minimum grade of C, and PHYS 25120 and MATH 17121. (F)

CHEM 24534 - Physical Chemistry II (3)

The study of thermodynamic systems and processes and the rates at which chemical reactions occur through the scrutiny and

interpretation of the physical laws that govern the structure and behavior of matter as it exchanges energy within and between itself and its surroundings in the macroscopic domain. Topics include thermochemistry, thermodynamics, equilibrium, solutions, gases, chemical dynamics, and chemical kinetics. Prerequisites: CHEM 24532 and CHEM 24533 with a minimum grade of C, or permission of instructor. (S)

CHEM 24535 - Physical Chemistry II

Laboratory (1)

Laboratory course in physical chemistry that must be taken concurrently with CHEM 24534. (S)

CHEM 24552 - Advanced Inorganic Chemistry (3)

Modern aspects of inorganic chemistry, includes coordination chemistry, molecular orbital theory, group theory and catalysis, magnetic properties of elements and compounds. Three hours of lecture and recitation per week. Prerequisite: CHEM 24532 with a minimum grade of C, or concurrently. (S, odd years)

CHEM 24555 - Inorganic Synthesis

Laboratory (1)

An introduction to fundamental methods and techniques used in the synthesis and manipulation of inorganic compounds. The techniques used will include the synthesis, methods of purification and characterization of inorganic compounds. Prerequisite: CHEM 24116 and CHEM 24117 with a minimum grade of C in both. (S, odd years)

CHEM 24562 - General Biochemistry (3)

An introductory course in biochemistry which deals with selected topics in the field. The description and function of amino acids, proteins, fats, nucleic acids, and certain carbohydrates will be discussed. Enzymes and their role in metabolic processes will be emphasized. Three hours of lecture and recitation per week. Prerequisite: CHEM 24342 with a minimum grade of C, or permission of instructor. (F)

CHEM 24563 - General Biochemistry

Laboratory (2)

Experiments illustrating biochemical techniques and principles will be performed. Two three-hour laboratory periods per week. Prerequisite: CHEM 24562 or concurrently. (F)

CHEM 24580 - Special Topics (1 to 3)

This is an in-depth study of special topics offered according to the student's needs and interests. Topics include: environmental chemistry, atomic and molecular structure, kinetics, industrial chemistry, polymer chemistry, computer applications in the laboratory, surface chemistry, and colloidal chemistry. Can be repeated with different topics. Prerequisites: CHEM 24342 and CHEM 24532 or permission.

CHEM 24592 - Chemistry Seminar (1)

Students will prepare written and oral reports on a literature search of a chemistry topic. Prerequisite: CHEM 24342. (F, S)

COM - Communication

COM 29100 - Special Offering (1 to 4)

COM 29101 - Oral Communication for International Students (3)

Designed to meet the needs of international students desiring to improve their oral communication skills. Will include conversational and formal presentation activities. Meets five times per week. Does not fulfill COM 29102 requirement.

COM 29102 - Fundamentals of Oral Communication (3)

An overview of the theory and guided practice of the skills utilized in intrapersonal, interpersonal, group and public communication. The student will perform an interview, small group discussion, informative speech and persuasive speech. (F, S, SS)

COM 29133 - Practicum in Debate and Forensics (1 to 4)

Participation in intercollegiate debate and forensic activities. May be repeated for up to four hours for further mastery. (F, S)

COM 29152 - Public Relations Practicum (1)

Practice in the principles of public relations. Students will work on promotional materials or activities. It is suggested that students complete COM 29260 before enrolling. This course is repeatable for a new, advanced, or expanded experience. (F,S)

COM 29200 - Special Offering (1 to 4)

Courses offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and

prerequisites as announced. Repeatable with topics changing.

COM 29210 - Communication Theory (3)

This course will cover a variety of communication theories that provide much of the basic foundation for the discipline. Students will learn about theories relating to the different areas of study in communication (e.g. interpersonal, small group, organizational, rhetorical, public relations and mass media). Satisfactory completion of the course is part of the requirements for Advanced Standing within the School of Communication and Mass Media. (F)

COM 29225 - Intercultural Communication (3)

An analysis of how culture interacts with communication and an examination of issues and problems encountered when communicating across cultures. (F, S)

COM 29226 - Principles of Interviewing (3)

The study of interviewing principles for people-management skills. Provides the student with the opportunity to practice techniques appropriate for the following types of interviews: employment, orientation, goal-setting, problem-solving, appraisal and persuasion or selling.

COM 29230 - Public Speaking (3)

A study of the theory and principles of effective public speaking. The student will develop and present various types of public speeches with and without presentational aids. (F, S)

COM 29232 - Small Group Communication (3)

A study of group processes in the problem-solving setting. The focus is on problem solving, leadership, role development, cohesiveness and effective practitioners. Group participation outside the classroom will be expected. (F, S)

COM 29235 - Introduction to Classical Rhetoric (3)

An introduction to the development and theories of rhetoric. The focus is on the ancient Greeks and Aristotle's Rhetoric as well as the Romans including Cicero and Quintillian. (S)

COM 29240 - Principles of Leadership (3)

An examination of the concept of leadership and its application in different aspects of modern society. The focus will be on techniques of leadership in decision-making and policy formulation and implementation. There will also be a discussion of leadership qualities necessary for the future. (S)

COM 29250 - Voice and Diction (3)

A study of the sound system of American English. Emphasis is placed on taxonomy of sounds using the International Phonetic Alphabet and on understanding the mechanisms of articulation, phonation and prosody as applied to broadcasting, theatre and speech pathology. Basic acoustics is introduced.

COM 29260 - Public Relations Techniques (3)

Introduction to the communication techniques of public relations including internal and external interpersonal communication networks and mediated communication. Recommended prerequisites: MMED 20130 and ENGL 10111 and ENGL 10112. (F, S)

COM 29310 - Communication Research Methods (3)

An introduction to the process of research and inquiry in the field of communication. This course surveys quantitative, qualitative and critical methodologies and provides students with tools to evaluate and conduct such studies. MATH 17114 General Statistics is recommended as a directed Northwest Core choice. Prerequisites: COM 29102; and ENGL 10111 and ENGL 10112, or ENGL 10115. (S)

COM 29325 - Listening Behavior and Skills (3)

An examination of listening behavior and its place in the communication process. The major interactive and perceptual processes involved in the reception of aural data are studied. Tests and exercises are presented to enable students to understand and improve their own listening skills. Prerequisite: COM 29102. (S)

COM 29332 - Propaganda and Persuasion (3)

Exploration of the symbolic means of engineering consent, focusing on techniques that foster intolerance and bigotry. The course focuses on theories of symbolic manipulation and theories of persuasion, and on analyzing actual propaganda campaigns and persuasive campaigns. (S)

COM 29335 - Interpersonal Communication (3)

A study of the theories of interpersonal communication. Experiences in the development of communication, anxiety awareness, verbal confrontation, reinforcement and interpersonal trust are included. (F)

COM 29336 - Nonverbal Communication (3)

An analysis of the fundamental forms of nonverbal communication. Attention is given to the use of the body in conscious and unconscious gestures, proxemics, kinesics and axis, and the effect of these on the environment and culture of the individual. (S)

COM 29338 - Advanced Practicum in Debate and Forensics (1 to 4)

Participation in intercollegiate debate and forensics activities. Prerequisite: Junior or senior standing. May be repeated for up to four hours for further mastery. (F, S)

COM 29341 - Argumentation and Debate (3)

A study of the theory of argumentation, logical argument construction, argument refutation and cross examination. The course involves the application of reflective thinking to problem solving. Students are given an opportunity to apply argumentation theory to law, scholarship, politics and business. (F)

COM 29343 - Rhetoric of American Issues (3)

A survey of famous American orators and issues. The rhetorical and historical contexts of selected speeches and issues are emphasized. Prerequisite: COM 29235. (S, alt. years)

COM 29351 - Normal Language Development (2)

A study of the normal processes of developmental progression by which the child acquires the syntax, semantics, morphology and phonology of language.

COM 29352 - Advanced Public Relations Practicum (2)

Advanced practice in the principles of public relations. Students will work collaboratively to develop multiple public relations oriented materials and/or event related activities. This course is repeatable for a new, advanced or expanded experience. Prerequisite: COM 29152. (F,S)

COM 29360 - Principles of Public Relations (3)

An overview of public relations as practiced historically and in contemporary America. It provides a comprehensive foundation of theoretical and applied knowledge necessary to become a public relations practitioner. Prerequisites: COM 29260 and MMED 20130. (F)

COM 29400 - Special Offering (1 to 4)

Courses offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

COM 29401 - Special Topics (1 to 3)

Provides concentrated study in special areas within speech communication. Topics vary trimester to trimester. Repeatable with topics changing. Prerequisites as announced.

COM 29402 - Current Topics in Communication (3)

This course introduces students to areas of current importance in the communication field. It builds upon the theory and research introduced in previous courses and gives students a global perspective of communications practice. Prerequisites: Advanced standing or permission of the instructor. May be repeated for credit with topics changing. (S, alt. years)

COM 29420 - Crisis Communication (1 to 3)

This course will prepare students to navigate the unique challenges communicators face during a crisis situation through the study of basic communication theory and practice, media relations, relevant laws and ethics, cross-cultural communication, international crisis communication, and communication coordination practices. (F, S)

COM 29425 - Knacktive (3)

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more information. (S)

COM 29432 - Organizational Communication (3)

A study of the spoken communication process in business and organizational settings and the major concepts which influence organizational communication. Attention is directed toward the organizational elements, the communication system and improving organizational communication. (F)

COM 29460 - Public Relations Problems: Cases, Concepts, and Campaigns (3)

A study of the rationale underlying public relations campaigns, achieving specific public relations goals and solving a wide variety of public relations problems. Prerequisite: COM 29360. (S)

COM 29467 - Internship in Organizational Communication (1 to 3)

Allows students to gain practical experience by participating in on-site work with various types of organizational communication departments or organizations under the on-site supervision of an experienced business person. Consent of instructor required. Repeatable for new experience. (F, S, SS)

COM 29468 - Internship in Speech Communication (1 to 3)

Allows students to gain practical experience by participating in on-site work with various types of communication organizations under the on-site supervision of an experienced communication professional. Consent of instructor required. Repeatable for new experience. (F, S, SS)

COM 29469 - Internship in Public Relations (1 to 3)

Professional experience in public relations. The particular interests of the student are addressed through practical application with public relations practitioners. Prerequisites: Senior standing in public relations and consent of instructor. Repeatable for new experience. (F, S, SS)

COM 29480 - Methods of Teaching Speech/Theatre in the Secondary School (3)

A preparation for meeting the special problems of teaching speech and theatre in the secondary school. This course includes a formal presentation of the student's professional portfolio. Prerequisite: Senior standing and admittance to Teacher Education. (F)

COM 29495 - Independent Study in Communication (1 to 2)

Repeatable with topics changing.

COM 29498 - Senior Capstone (3)

Designed to prepare the communication student to enter the post-college world in the communication field, this course summarizes communication trends, research techniques, discipline-oriented writing and presentation skills, including an emphasis on application to team-based projects. Prerequisite: Must meet the current departmental cut score(s) on the current standardized general education test(s) (contact the department office for specific information), and have the permission of the department chair in order to enroll. (F)

COM 29499 - Senior Seminar (1)

Designed to prepare the speech communication student to enter the post-college world of advanced study of the communication field, this course summarizes communication trends, research techniques, discipline-oriented writing skills and presentation skills. This course includes a formal presentation of the student's professional portfolio. Prerequisite: Must meet the current departmental cut score(s) on the current standardized general education test(s) (contact the department office for specific information), and have the permission of the department chair in order to enroll. (F,S)

COM 29500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

COM 29537 - Independent Study in Speech Science (1 to 2)

Repeatable with topics changing.

COM 29538 - Independent Study in Speech Education (1 to 2)

Repeatable with topics changing.

COM 29539 - Independent Study in Speech Media (1 to 2)

Repeatable with topics changing.

COM 29553 - Language, Speech, and Hearing of the Exceptional Child and Adult (3)

A study for the special education teacher in the identification and referral of exceptional individuals with communication disorders. Topics include the development, characteristics and disorders of language, speech and hearing in the exceptional individual. Focus is on establishing interactions that are supportive of communicatively handicapped individuals in special education programs. (F, SS)

COM 29566 - Special Topics in Speech Science (1 to 4)

Repeatable with topics changing.

COM 29567 - Special Topics in Contemporary Issues (1 to 4)

Repeatable with topics changing.

COM 29568 - Special Topics in Rhetoric (1 to 4)

Repeatable with topics changing.

COM 29581 - Philosophical Bases of Speech Education (3)

An examination of the historical and philosophical bases for teaching speech in the secondary school.

CORE - Northwest Core Interdisciplinary Engagement

Interdisciplinary Engagement

The Interdisciplinary Engagement courses are part of the Northwest Core. These courses are offered as special offerings which interface various disciplines. When available, two or more disciplines will be linked and the student will select which Northwest Core requirement they wish to fulfill. For example, in a given trimester CORE 90207 Interdisciplinary Engagement: Western Experience may be paired with CORE 90210 Interdisciplinary Engagement: Literature. The student will enroll in the course number which fulfills the desired Northwest Core requirement. Students should contact their advisors for assistance in choosing these courses. Availability of these courses will be posted online. Credit hours will vary depending on the course linkage. Students cannot take more than three Interdisciplinary Engagement courses to fulfill the requirements of the Northwest Core.

CORE 90201 - Interdisciplinary Engagement: Oral Communication (3 to 4)

CORE 90202 - Interdisciplinary Engagement: Written Communication A (3 to 4)

CORE 90203 - Interdisciplinary Engagement: Written Communication B (3 to 4)

CORE 90204 - Interdisciplinary Engagement: Mathematical Reasoning (3 to 4)

CORE 90205 - Interdisciplinary Engagement: Digital Literacy (3 to 4)

CORE 90206 - Interdisciplinary Engagement: Global Experiences (3 to 4)

CORE 90207 - Interdisciplinary Engagement: Western Experiences (3 to 4)

CORE 90208 - Interdisciplinary Engagement: American Experiences-History (3 to 4)

CORE 90209 - Interdisciplinary Engagement: American Experiences-Political Science (3 to 4)

CORE 90210 - Interdisciplinary Engagement: Literature (3 to 4)

CORE 90211 - Interdisciplinary Engagement: Fine Arts (3 to 4)

CORE 90212 - Interdisciplinary Engagement: Social/Behavioral Sciences (3 to 4)

CORE 90213 - Interdisciplinary Engagement: Life Sciences (3 to 4)

CORE 90214 - Interdisciplinary Engagement: Physical Sciences (3 to 4)

CSIS - Computer Science Info Systems

CSIS 44100 - Special Offering (1 to 3)

CSIS 44101 - Foundations of Computing (3)
An introduction to fundamental concepts in computing. Emphasis will include the impact of computing in academic disciplines and all aspects of society. (F)

CSIS 44125 - Special Topics (1 to 4)

Topics will vary but the rigor level will be appropriate for beginning undergraduate students. (F, S, SS)

CSIS 44130 - Computers and Information Technology (3)

Introduction to computer systems. Topics include integrated office applications, hardware, software, Internet, and the rights and responsibilities of computer users. (F, S, SS)

CSIS 44155 - Introduction to Data Science and Data Mining (3)

This course provides an overview of data science, modern data mining techniques, processes and tools with concrete examples. Selected case studies of data mining applications in different domain areas are presented within the context of the data mining processes. This course serves as an introduction to the basics of data science and emphasizes the connections between data mining theory and its applications in industry. Prerequisite: MATH 17114. (F)

CSIS 44200 - Special Offering (1 to 4)

CSIS 44300 - Special Offering (1 to 4)

CSIS 44400 - Special Offering (1 to 3)

CSIS 44413 - Visualization (3)

Course covers the design and development of explanatory diagrams and graphics for varying data sets. This may include concepts such as Design of Charts and Graphs, Networks, Topological Graphs, Display of High Dimensional Data, Effective Use of Space and Color, Animations, Interactive Visualizations, Mapping, Cartography, Acquisition of Web Data, and advanced Visualization Tools. Tools used may include JavaScript, JQuery, D3.js and other JavaScript/JQuery frameworks, Web Servers, R, Python, etc. Prerequisites: MATH 17114 and CSIS 44241. (F)

CSIS 44425 - Knacktive (3)

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more

information. Course is repeatable for additional experience. (S)

CSIS 44495 - Internship in Computer Science/Information Systems (1 to 3)

Prerequisites: 9 hours in computer science/information systems and permission of department chairperson. May be repeated for new experience. (F, S, SS)

CSIS 44499 - Independent Study (1 to 3)

Prerequisite: Consent of instructor. Repeatable for new material. (F, S)

CSIS 44500 - Special Offering (1 to 4)

CSIS 44517 - Big Data (3)

Course covers concepts, applications, and tools related to computation, storage, analysis, and manipulation of large data sets. This may include concepts such as Parallel Programming, Map-Reduce, Distributed Computing, Distributed File Systems, NoSQL, and Machine Learning. Tools used may include OpenMP, MPI, Hadoop, Spark, Mahout, HDFS, Pig, Hive, MLlib, etc. Prerequisites: MATH 17114 and CSIS 44242. (F)

CSIS 44520 - Web Mining (3)

The Web, the largest publicly accessible data source in the world, has grown at an unprecedented pace during the past decade. The rapidly changing news and events make the Internet a non-stationary environment, which in turn generates rapidly changing data. This course examines the unique characteristics of Web from a data mining perspective. It provides a review of data mining foundations and covers basic concepts of text mining, information retrieval, web search and data mining applications on social media. Prerequisites: MATH 17215, CSIS 44155, CSIS 44241, and CSIS 44460. (S)

Business Education/Instructional Technology

CSIS 44510 - Coordination of Cooperative Education (3)

Selection, development, and presentation of materials used in supervision of students in the work place. Includes methods, techniques, evaluation, current practices, and trends in teaching and supervising of COE. (S, SS)

CSIS 44515 - Effective Assessment (3)

Students will develop the knowledge and skills necessary to assess learning effectively. Topics include effective assessments, basic psychometric statistics, grading, communicating assessment information, testing ethics, locating and evaluating measures, and assessments used in decision making. (Fall, odd years; Summer, even years)

CSIS 44580 - Methods of Teaching Business and Marketing (1 to 3)

The selection, development and presentation of the business, marketing, and cooperative education curriculum. Includes methods, techniques, assessment and current issues and trends in business education. Prerequisite: Admittance to Teacher Education. (F, S)

CSIS 44582 - Technology Curriculum and Integration (3)

An examination of standards, and curriculum for the integration of technology in educational and business environments. The integration of technology throughout K-12 classrooms will be emphasized. (S, even years)

CSIS 44584 - Implementing Business and Marketing Education Programs (3)

Fundamental concepts in business, marketing, and cooperative education programs are studied for implementing effective business programs. The study includes organization and development of curriculum, student organizations, funding, advisory committees and program evaluation. (F, S, SS)

CSIS 44585 - Instructional Technology and the Learning Process (3)

An in-depth study of the cognitive process as it relates to the technology-enhanced classroom. (Spring, even years)

Computer Science

CSIS 44140 - Visual Basic Application Programming (3)

An introduction to event-driven programming in an object-oriented environment. Prerequisites: 2 units of high school algebra and CSIS 44130 with a grade of C or better, or School director's permission. (F, S)

CSIS 44141 - Computer Programming I (3)

An introduction to object-oriented programming; analyze problems, design and implement solutions. Prerequisites: 2 units of high school algebra and CSIS 44130 or equivalent with a grade of C or better, or School director's permission. (F, S)

CSIS 44149 - Scientific Computing (3)

Tools and techniques for using a computer to solve numeric problems with an emphasis on scientific and mathematical applications. Prerequisites: MATH 17117 or MATH 17120 and a course in the digital literacy section of The Northwest Core with a grade of C or better in each. (S)

CSIS 44241 - Computer Programming II (3)

Intermediate computer programming, design of algorithms and introduction to data structures. Prerequisites: CSIS 44141, and MATH 17110 or MATH 17114 or MATH 17117 or MATH 17118 or MATH 17120, with a grade of C or better. (F, S)

CSIS 44242 - Data Structures (3)

Abstract data structures including stacks, queues, lists and trees. File structures emphasizing random access files. Construction of graphical user interfaces. Prerequisite: CSIS 44241, with a grade of C or better, or consent of instructor. (F, S)

CSIS 44296 - Professional Development Seminar (3)

Emphasis on ethical issues in the workplace and professional development for the field of computing. Prerequisites: Sophomore standing and CSIS 44141. (F)

CSIS 44325 - Programming Languages (3)

A survey of the features of contemporary programming languages chosen to illustrate two different programming paradigms. Extensive programming in each of the languages. Prerequisite: CSIS 44242, with a grade of C or better.

CSIS 44345 - Computer Organization (3)

Introduction to computer systems organization with emphasis on machine language and assembler programming. Prerequisites: CSIS 44242, with a grade of C or better, and one trimester of chemistry, physics, or physical science. (S)

CSIS 44349 - A Survey of Algorithms (3)

A study of algorithms central to the major areas of computer science. Prerequisites: CSIS 44242, MATH 17215, and either MATH

17117 or MATH 17118 each with a grade of C or better. (S)

CSIS 44351 - Foundations of Game Development (3)

This course will blend theory and practice to provide students with a solid understanding of the foundations of game design and development. Prerequisites: CSIS 44242 with a minimum grade of C.

CSIS 44356 - Network Fundamentals (3)

Course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The Open Systems Interconnection (OSI) and Transport Control Protocol (TCP) layered models are used to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media and operations are introduced. Prerequisite: CSIS 44130 with a grade of C or better. (F)

CSIS 44358 - CCNA: Routing Protocols and Concepts (3)

Describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols Routing Information Protocol (RIP)v1, RIPv2, Enhanced Interior Gateway Routing Protocol (EIGRP), and Open Shortest Path First (OSPF). The second of four courses to prepare students for the Cisco Certified Network Associate (CCNA) certification. Prerequisite: CSIS 44356 with a grade of C or better. (S)

CSIS 44359 - Secure System Administration (3)

Computer and network systems are pervasive in today's work and home environments. This course will give students knowledge and experience setting up, securing and maintaining the various components that make up these systems. Students will be able to perform these operations using both physical and virtual environments. Prerequisites: CSIS 44356 with a minimum grade of C.

CSIS 44443 - Mobile Computing-iOS (3)

Students will learn the intricacies of mobile computing development with an emphasis on the iOS platform. Prerequisite: CSIS 44242 with a grade of C or better.

CSIS 44444 - Mobile Computing-Android (3)

Students will learn the intricacies of mobile computing development with an emphasis on the Android platform. Prerequisite: CSIS 44242 with a grade of C or better.

CSIS 44451 - Advanced Topics in Mobile Computing (3)

This course covers advanced and emerging topics in mobile computing on one or more platforms. Prerequisites: CSIS 44443 or CSIS 44444 with a minimum grade of C.

CSIS 44456 - CCNA: LAN Switching and Wireless (3)

Helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Beginning with a foundational overview of Ethernet, this course provides detailed explanations of Local Area Network (LAN) switch operation, Virtual LAN (VLAN) implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students analyze, configure, verify, and troubleshoot VLANs, STP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. The third of four courses leading to a Cisco Certified Network Associate (CCNA) certification. Prerequisite: CSIS 44358 with a grade of C or better. (F)

CSIS 44457 - Applied Cryptography (3)

Cryptography is the primary tool used to protect information within digital communication systems. This course provides students with an in-depth understanding of the cryptographic tools and algorithms currently in use. We will discuss the benefits and limitations of these algorithms and learn how to securely use each in real-world applications. Prerequisites: CSIS 44356 with a minimum grade of C and CSIS 44349 with a minimum grade of C.

CSIS 44458 - CCNA: Accessing the Wide Area Network (3)

Introduction to Wide Area Network (WAN) technologies including configuring, verifying, and troubleshooting. Basic network security is introduced as well as Access Control Lists (ACLs), Virtual Private Networks (VPNs), Dynamic Host Configuration Protocol (DHCP), Network Address Translation (NAT), Port Address Translation (PAT), and IPv6. The fourth of four courses leading to a Cisco

Certified Network Associate (CCNA) certification. Prerequisite: CSIS 44456 with a grade of C or better. (S)

CSIS 44460 - Database Systems (3)

An introduction to database systems, including data modeling, design, and implementation. Prerequisite: CSIS 44241, with a grade of C or better. (F, S)

CSIS 44471 - Practicum in Computer Science Teaching (1)

Supervised practice in an educational computing environment. Through the use of journals, observation by staff members and curriculum projects, students will develop their teaching skills, plan teaching strategies, and develop organizational and instructional competencies. May be repeated for additional experience. Prerequisites: 10 hours of computer science and 5 hours of education. (F, S)

CSIS 44525 - Theory and Implementation of Programming Languages (3)

Syntax and semantics of programming languages; the translation process; and features of object-oriented languages and functional programming. Prerequisite: CSIS 44242, with a grade of C or better, or consent of instructor. (F)

CSIS 44540 - Visual Application Development (3)

An introduction to programming Microsoft Windows applications. Prerequisite: CSIS 44460, or CSIS 44241 and CSIS 44346, with a grade of C or better; or equivalent (prerequisite may be taken concurrently).

CSIS 44542 - Object-Oriented Programming (3)

Provides fast-paced coverage of object-oriented programming and data structures. Students will gain extensive programming experience. Prerequisites: Graduate standing and an undergraduate course in data structures with a grade of C or better; no previous experience with object-oriented programming is necessary. (F, S)

CSIS 44550 - Operating Systems (3)

Course covers concepts of operating systems, including process and storage management, protection, security and distributed systems. Prerequisite: CSIS 44345, with a grade of C or better. (F)

CSIS 44555 - Network Security (3)

A study of computer network security issues. Includes hands-on experience with server applications as well as some practice in client/server programming. Prerequisite: CSIS 44356 with a grade of C or better. (F, S)

CSIS 44560 - Advanced Topics in Database Systems (3)

Advanced topics in database systems, including database administration, distributed databases, and data warehousing and object-oriented databases. Hands-on experience using a DBMS in a client/server environment. Prerequisite: CSIS 44241 and CSIS 44460, each with a grade of C or better. (F, S)

CSIS 44561 - Software Engineering Principles (3)

The underlying principles of software engineering are covered in this course. Topics include software process models, requirements engineering, software design and architecture, implementation, testing, and user interface design. Prerequisites: CSIS 44242 and CSIS 44460 with a grade of C or better. (F)

CSIS 44562 - Software Engineering Practice (3)

A software development practicum in which students apply concepts learned throughout the curriculum in order to develop the real-world applications. Prerequisite: CSIS 44561 with a grade of C or better. (S)

CSIS 44564 - Design of Data Intensive Systems (3)

An introduction to the design of data-intensive, reliable, scalable, and maintainable systems. Includes an introduction to current and relevant tools, technologies, design principles, and frameworks. Prerequisites: CSIS 44460 with a grade of C or better (B or better for graduate students), or graduate standing with prior database experience and experience in Java programming.

CSIS 44563 - Developing Web Applications and Services (3)

Technologies and protocols supporting web applications and web services. Students gain experience in client-side and server-side programming. Prerequisites: CSIS 44241 and CSIS 44460, each with a grade of C or better.

CSIS 44566 - Applied Data Analytics (3)

This course will introduce fundamental concepts and techniques of data mining,

including data attributes, data pre-processing, association and correlation, classification methods, and cluster analysis. Big data and associated issues (e.g. graphs, graphical models, and data visualization) will be explored. The course will include a final project in an application domain of interest to the students. Students will be expected to apply early semester coursework throughout the course and will be able to use these tools outside the classroom. Prerequisites: CSIS 44460 with a grade of C or better (B or better for graduate students), or graduate standing with prior database experience and experience in Java programming.

CSIS 44590 - Current Topics in Computer Science (1 to 3)

Courses emphasizing the current developments in computer science which are offered according to student need and interest, and have the content described in the title. May be repeated provided the content is different. (F, S)

CSIS 44599 - Special Projects (1 to 6)

Study of special topics as related to computer science. Prerequisites: 30 hours in the department and consent of instructor. Repeatable for additional experience, new material, and progression of study. (F, S)

Interactive Digital Media

CSIS 44144 - Web Development I (3)

This is an introductory course that covers the concepts necessary for the construction of web pages and web sites with HTML and CSS. The course is project based and will have a culminating project at the end. Prerequisite: CSIS 44130 with a minimum grade of C. (F, S)

CSIS 44334 - Web Development II (3)

This course will focus on building the core competencies needed to write the HTML and CSS to develop and deploy web projects on a web server. The student will learn to control the format and the layout of elements with CSS. There will be a culminating project at the end. Prerequisite: CSIS 44144 with a minimum grade of C. (F)

CSIS 44335 - Script Programming (3)

An introduction to a scripting language that enables web browser interactivity. Prerequisites: CSIS 44334 and some previous programming experience (CSIS 44141 or CSIS

44144 for example) is required with a minimum grade of C in all courses. (S)

Management Information Systems

CSIS 44312 - Information Technology Hardware/Software (3)

Course provides the hardware and software technology background to enable systems development personnel to understand trade-offs in computer architecture for effective use in a business environment. System architecture is explored for single use, central, and networked computing systems; single and multi-user operating systems. Prerequisite: CSIS 44130 with a minimum grade of C. (S)

CSIS 44317 - Management Information Systems (3)

A study of business systems and their relationship with computer systems. The interaction of various systems of the organization and computer technology is emphasized. Prerequisites: MGMT 54313 and CSIS 44130 each with a minimum grade of C. (F, S, SS)

CSIS 44411 - Systems Analysis and Design (3)

A study of the procedures necessary to analyze and design computerized business systems. Written and oral proposals based on design methods and techniques will be used to develop the student's analysis and communication skills. Prerequisites: CSIS 44317 with a minimum grade of C and advanced standing, or consent of the instructor. (F)

CSIS 44418 - Information Technology Project Management (3)

A detailed study of project management including life cycle, scope, integration, controls and the use of project management software. Prerequisite: CSIS 44317 and CSIS 44411 with a grade of C or better. (S)

CSIS 44516 - Current Topics in Information Systems (1 to 3)

Selected topics in information systems emphasizing current development in the field. May be repeated provided the content is different. Prerequisites: CSIS 44317 and one high-level programming language with grades of C or better or consent of instructor.

Business Technology

CSIS 44211 - Spreadsheet Applications (1)

A course on the intensive use of spreadsheets including features such as financial functions, querying a list, web queries for real-time data and what-if analysis. Prerequisite: CSIS 44130 with a grade of C or better, or equivalent course. (F, SS even years)

CSIS 44212 - Advanced Spreadsheets and Charting (1)

A course on the intensive use of spreadsheet features such as using templates, data consolidation, macros, solver, scenarios, and pivot tables and charts. Prerequisites: CSIS 44130 with a grade of C or better, or equivalent course, and CSIS 44211 with a grade of C or better. (F, SS even years)

CSIS 44320 - Advanced Word Processing (1)

Advanced word processing skills and concepts will be emphasized to manipulate, organize, and enhance documents. Prerequisite: CSIS 44130 with a grade of C or better, or equivalent course. (S)

CSIS 44330 - Presentation Graphics (1)

Concepts, design elements, and preparation of presentation graphics. Projects with electronic presentation and imaging software will be completed. Prerequisite: CSIS 44130 with a grade of C or better, or equivalent course. (S)

CSIS 44340 - Digital Media (1)

Designing and using digital media to produce multimedia projects with audio and video. Prerequisite: CSIS 44130 with a grade of C or better, or equivalent course. (S)

CSIS 44343 - Digital Communications (3)

A study of varied input technologies and business procedures including the selection and use of tablet and handheld computers, scanning, speech recognition, and digital communication devices. Prerequisites: CSIS 44130 with a grade of C or better, or equivalent course. (F)

CSIS 44346 - Database Applications (1)

Applications of database management software for creating, querying and manipulating databases. Prerequisite: CSIS 44130 with a grade of C or better, or equivalent course. (F, SS even years)

CSIS 44447 - Current Topics in Office Information Systems (1 to 3)

Topics selected to emphasize the current developments in office systems. May be repeated provided the content is different.

ECON - Economics

ECON 52100 - Special Offering (1 to 2)

ECON 52130 - Survey of Economics (3)

This course is a one trimester survey of economics. Topics include scarcity and resource allocation; supply and demand; the nature of households and firms, and their interaction in markets; money and banking; gross domestic product determination; and government economic policies. (F, S, SS)

ECON 52150 - Principles of Macroeconomics (3)

An introduction to the fundamental principles of macroeconomic analysis. The basic principles relating to aggregate supply and demand; the determination of national income, employment and price level; money and banking; monetary and fiscal policies; and alternative economic systems are studied. (F, S, SS)

ECON 52151 - Principles of Microeconomics (3)

An introduction to the fundamental principles of microeconomic analysis. The basic principles relating to the decision-making by the individual household and the individual firm under different market structures, the allocation of society's resources and international trade and balance of payments are studied. (F, S, SS)

ECON 52200 - Special Offering (1 to 4)

ECON 52300 - Special Offering (1 to 4)

ECON 52351 - Macroeconomic Theory (3)

A study of the determination of aggregate income, employment and price level as well as the interactions of the various markets (goods, labor, money, and bonds) within the context of a general equilibrium model. Prerequisites: ECON 52150 and ECON 52151. (S)

ECON 52352 - Money, Credit, and Banking (3)

A study of the history, theory, and practice of money and banking. Commercial banking, central banking, and monetary policy are discussed and their impact on the economy is

examined within the framework of monetary theory. Prerequisite: ECON 52150. (F, S)

ECON 52353 - Microeconomic Theory (3)

An analysis of consumer choice, exchange, production and pricing under various market structures in a neoclassical context.

Developing the tools of microeconomics and their application to real world situations are strongly emphasized. Prerequisites: ECON 52150 and ECON 52151. (F)

ECON 52354 - Labor Economics (3)

A study of economic theory and evidence related to labor supply and demand; the wage structure within the economy; labor's share of national income; unemployment, human resource development, poverty and labor market discrimination; the economic effects of unions; and other issues related to the employment of human resources and labor-management relations. Prerequisites: ECON 52150 and ECON 52151. (F, SS)

ECON 52361 - Sports Economics (3)

This course investigates questions relating to the contribution of professional and recreational sports to social welfare. The general objective of the course is to apply economic concepts and ideas to the sports industry. Prerequisite: ECON 52151. (F)

ECON 52362 - Comparative Economic Systems (3)

How market, mixed, planned, and developing economic systems are organized and function to obtain major economic, political and social goals. Prerequisites: ECON 52150 and POLS 34102.

ECON 52400 - Special Offering (1 to 4)

ECON 52425 - Internship in Economics (1 to 3)

Students who are economics majors may enroll, with the permission of the School Director, in an intern program with an approved business or government firm. It is recommended the student be in the junior or senior year. This course is repeatable for new experience. (F, S, SS)

ECON 52450 - International Economics (3)

A study of modern theories in international trade and finance and current trends and issues in international economic relations. Prerequisites: ECON 52150 and ECON 52151. (F)

ECON 52451 - Econometrics (3)

Foundations of econometrics. Analysis of linear regression, non-linear regression and computer simulation models. The problems of parameter estimation, verification and the prediction of economic magnitudes are studied. Prerequisites: ECON 52150 and ECON 52151, MATH 17114. (S, odd years)

ECON 52458 - Forecasting Business Conditions (3)

A study of applied economics encompassing measurement, analysis and prediction of business conditions at the national, regional and industrial levels. Prerequisites: ECON 52150, ECON 52151 and MATH 17114 and MATH 17118. (S, even years)

ECON 52459 - Independent Study in Economics (1 to 3)

Offered only by special arrangement and with consent of the instructor. This course is repeatable with topics changing. (F, S, SS)

ECON 52500 - Special Offering (1 to 4)

EDCI - Education: Curriculum & Instruction

EDCI 62110 - Strategies for College Reading (1)

A basic course designed to improve student reading ability through group and individualized instruction for students who need additional reading skills to succeed at the University level. (F, S)

EDCI 62130 - Educational Computing and Technology (3)

Introductory educational technology course required for all elementary education majors that emphasizes application of contemporary technology in elementary education. Students will learn to use technology as a tool to improve the teaching and learning processes. The methodologies and materials used in the course are updated each semester according to current trends, practices, and research in the field of educational technology. In addition, technologies used in the course will be same as technologies that are used and available in K-6 classrooms. (F, S, SS)

EDCI 62200 - Special Offering (1 to 4)

EDCI 62211 - Observation and Activity in the Elementary School (1)

The student assists the elementary or middle school teacher with both non-instructional

and limited instructional responsibilities in the student's area of specialization. A portion of the course is devoted to periodic discussion sessions. (F, S)

EDCI 62216 - Literature for the Elementary School (3)

Selection and presentation of literature at the various levels of the elementary school. (F, S)

EDCI 62300 - Special Offering (1 to 4)

EDCI 62301 - Reporting Pupil Progress (2)

A study of group measurement, evaluation, interpretation and counseling techniques used with students, parents and other school personnel. (F, S, SS)

EDCI 62312 - Developing Foundations of Early Childhood Education (3)

This course is designed to equip the educator with relevant child development knowledge that impacts curricular and behavioral decisions in the classroom, so as to be able to engage in evidence-based practices. Students will outline typical developmental milestones and identify red flags from birth to age 12; explore a variety of contextual and maturational factors that guide, support, and alter the ongoing development of children in the physical, socio-emotional, cognitive and language domains; evaluate the influence of developmental factors on current educational issues; and formulate a child development based philosophical and theoretical framework for their work with children. Observation and participation with children at the child development center and cooperating schools will be an integral part of the course. (F, S)

EDCI 62320 - Classroom Behavior Management (3)

Preservice teachers will develop the knowledge and strategies necessary for successful classroom management and discipline for students who exhibit a wide range of behavioral needs and characteristics, including learners with special needs. (F, S)

EDCI 62330 - Health, Nutrition, and Safety of Young Children (2)

Basic principles of health, nutrition, and safety with a focus on examining the age related needs of young children, the interaction between biology and environment as influencing factors of children's health and well-being, and

policies/licensing regulations that govern related practices in educational settings. Students are exposed to methods for teaching children about food, health and safety, creating lunch and snack menus, and advocacy efforts related to the wellness and safety of young children. (F,S)

EDCI 62340 - Principles of Early Childhood Education (2)

This course introduces students to the cyclical relationship between philosophy, theory, and practice in early childhood education. Through an exploration of the various roles that an early childhood educator plays and the analysis of varied early childhood settings, this course serves as a foundational course in Early Childhood practitioner preparation. Prerequisite: EDCI 62312. (S, SS)

EDCI 62341 - Early Childhood Program Management (3)

This course is designed to introduce students to child care and curriculum models; foundations of behavioral guidance in Early Childhood; program development and evaluation; and staff professional development. Students will engage in critical inquiry to align the philosophies of early childhood curriculum and behavioral guidance to policies and procedures of operating and managing an early childhood program. Prerequisite: EDCI 62312 and EDCI 62340. (F,S)

EDCI 62353 - Teaching Reading in Content Areas (2)

Topics will focus on basic reading skills as relevant to all academic areas in the junior and senior high schools, with additional attention to specialized skills of reading as related to particular content materials. (F, S)

EDCI 62356 - Teaching Reading/Language Arts in the Elementary School (4)

This course has been designed to provide methods of instruction for an integrated elementary/middle school reading and language arts program. Emphasis will be placed on methods, materials and teaching approaches which will assist children in developing the lifelong communication skills of listening, speaking, reading and writing. (F, S, SS)

EDCI 62371 - Introduction to Special Education (3)

Provides participants with knowledge and understanding about the identification of exceptional children, methods of working with exceptional children and sources of referral available to parents and teachers. (F, SS)

EDCI 62380 - Diagnostic and Corrective Reading (2)

Diagnostic techniques and procedures for the correction of learning problems in reading. Prerequisites: EDCI 62301 and EDCI 62356, and Admittance to Teacher Education. (F, S, SS)

EDCI 62382 - Introduction to Cross Categorical Special Education (3)

Designed to develop knowledge of the issues and characteristics of individuals with mild/moderate disabilities (e.g., emotional and intellectual disabilities, learning disabilities, behavior disorders and/or physical and other health impaired, including ADHD) and to provide information and organizational techniques to meet their educational needs in a cross categorical setting. Students will develop the conceptual frameworks needed to identify and interpret a broad range of student behavior and deficits from a cross-categorical perspective. Prerequisite: EDCI 62371. (F, S)

EDCI 62384 - Teaching Students in Cross Categorical Special Education: Academic/Behavioral (3)

Designed to equip teachers-in-training with the knowledge and skills to effectively teach students with mild/moderate academic and/or behavioral disabilities. This is one of two methods courses (with no required sequence) required for the major in Special Education: Cross Categorical. Prerequisites: EDCI 62371 and EDCI 62382, and Admittance to Teacher Education. (F)

EDCI 62385 - Teaching Cross Categorical Special Education: Academic/Behavioral, Secondary (3)

Designed to equip teachers-in-training with the knowledge and skills to effectively teach adolescents and young adults with mild/moderate academic and/or behavioral disabilities. This is one of two methods courses (with no required sequence) required for the major in Special Education: Cross Categorical. Permission of advisor/instructor needed to enroll. Prerequisites: EDCI 62371 and EDCI 62382, and Admittance to Teacher Education. (F)

EDCI 62386 - Teaching Students in Cross Categorical Special Education: Functional/Physical (3)

Designed to equip teachers-in-training with the knowledge and skills to effectively teach students with mild/moderate functional and/or physical and other health impairments. This is one of two methods courses (with no required sequence) required for the major in Special Education: Cross Categorical. Prerequisites: EDCI 62371 and EDCI 62382, and Admittance to Teacher Education. (S)

EDCI 62387 - Teaching Students in Cross Categorical Special Education: Functional/Physical, Secondary (3)

Designed to equip teachers-in-training with the knowledge and skills to effectively teach adolescents and young adults with mild/moderate functional and/or physical and other health impairments. This is one of two methods courses (with no required sequence) required for the major in Special Education: Cross Categorical. Permission of instructor needed to enroll. Prerequisites: EDCI 62371 and EDCI 62382, and Admittance to Teacher Education. (S)

EDCI 62400 - Special Offering (1 to 4)

EDCI 62407 - Elementary School Language Arts Practicum (1)

Supervised practice in teaching language arts. Must be taken concurrently with EDCI 62456. Prerequisite: EDCI 62356 and Admittance to Teacher Education. (F, S)

EDCI 62410 - Elementary School Social Studies (3)

An examination of the content, teaching techniques, instructional materials and role of social studies in today's elementary school. Course includes both classroom and practicum experiences. Prerequisite: Admittance to Teacher Education. (F, S)

EDCI 62420 - Content Teaching in Elementary Schools (3)

Preservice teachers will develop knowledge in the content areas and teach content area subjects (math, science and social studies) under the guidance and supervision of a faculty member and a cooperating teacher in a classroom setting. Prerequisites: EDCI 62320, EDCI 62410, SCED 28380 and MATH 17471, and Admittance to Teacher Education. (F, S, SS)

EDCI 62430 - Teaching Writing in Middle School (2)

A study of the methods and materials for teaching the process of writing to middle school students. Content includes: developmental stages of writing, the writing process, writing evaluation, writing across the curriculum, creating a stimulating writing environment and the use of technology in writing. Prerequisite: Admittance to Teacher Education. (F)

EDCI 62444 - Practicum in Special Education: Cross Categorical (3)

Supervised clinical experience that includes interpretation of intelligence tests, formal and informal diagnostic procedures, instruction and practical application of teaching strategies and behavior management techniques. Prerequisites: EDCI 62384 or EDCI 62385, EDCI 62386 or EDCI 62387, EDCI 62470 and EDCI 62471, or permission of instructor. (F, S)

EDCI 62456 - Practicum and Seminar in Elementary School Reading (3)

Supervised practice in teaching reading with weekly seminars regarding problems in the teaching of reading. Must be taken concurrently with EDCI 62407. Prerequisite: EDCI 62356 and EDCI 62380, and Admittance to Teacher Education. (F, S, SS)

EDCI 62470 - Assessment in Special Education (3)

Instruction in administration and interpretation of formal and informal assessment instruments, interpretation of individualized intelligence tests and instruction in authentic assessment measures in order to design appropriate intervention programs for students with special instructional needs. Must be enrolled concurrently in EDCI 62471. Prerequisites: EDCI 62301 and EDCI 62371, and Admittance to Teacher Education. (F, S)

EDCI 62471 - Assessment in Special Education Lab (1)

Students will have the opportunity to administer assessments and develop evaluation plans, IEPs and other documents within the special education process. In addition, diagnosing student needs and prescribing appropriate educational interventions will be emphasized. Must be enrolled concurrently in EDCI 62470. Prerequisite: Admittance to Teacher Education. (F, S)

EDCI 62500 - Special Offering (1 to 4)**EDCI 62504 - Creating Inclusive Classrooms (3)**

Designed to provide a framework for creating learning environments that support the learning and socialization of students who bring unique characteristics to the classroom. Teachers will develop effective techniques and methods for all students including: those who are at risk for success or who have disabilities; the gifted and talented; those whose diversity lies in their culture, language, race, gender, sexual orientation or family structure. Undergraduate prerequisites: admitted to Teacher Education and at least one special education methods course (EDCI 62384 or EDCI 62386); graduate prerequisite: Degree Audit Form on file or permission of instructor. (S)

EDCI 62508 - Transition/Career Education for Students with Disabilities (2)

Acquaints the student with an understanding of principles, methods, and procedures of career development and transition for students with disabilities. Undergraduate prerequisite: admitted to Teacher Education and at least one special education methods course (EDCI 62384 or EDCI 62386); graduate prerequisite: EDCI 62642 or permission of instructor. (S, SS)

EDCI 62511 - Middle School Curriculum, Methods and Practicum (3)

Methods and techniques of teaching, practicum experience, and curriculum construction for the middle school, with attention given to early adolescent development. (F, SS even years)

EDCI 62519 - Problems in Elementary Education (1 to 4)

A course designed to meet the individual student's educational needs. The studies may be either of a subjective or objective research nature. (F, S, SS)

EDCI 62520 - Introduction to Teaching Students with Autism Spectrum Disorders (3)

This course is intended to develop effective teachers of students with autism spectrum disorders. This course will cover a wide variety of topics regarding students with autism spectrum disorders: from characteristics, basic knowledge of assessment, to effective practices used to address their unique needs in school, family,

and community. This course will provide an introduction and overview of issues surrounding the education of students with autism spectrum disorders. (F)

EDCI 62521 - Teaching Students with Autism Spectrum Disorders (3)

This course is intended to develop effective teachers of students with autism spectrum disorders (ASD). This course is a follow-up to the prerequisite Introduction to Teaching Students with Autism Spectrum Disorders and will go into more depth with methods and evidence-based practices used with students with ASD. Students will gain more specific knowledge of strategies and evidence-based practices as well as develop some supports to be used with students in special education or inclusion settings. Prerequisite: EDCI 62520.

EDCI 62522 - Technology for Teaching and Learning (3)

Students will learn about various technologies, applications, procedures and assessments to facilitate student learning. Using technology to meet the diverse needs of students including those with disabilities will be explored. Topics include assessment, levels of assistive technology devices and services, use of word processing, spreadsheet, and database software in the instructional process, student and teacher productivity applications, ethical and legal issues regarding technology in the classroom, and instructional software. Prerequisite for undergraduate students: Admittance to Teacher Education and at least one methods course or permission of instructor. (F)

EDCI 62531 - Curriculum and Methods in Early Childhood (3)

A gradual induction into planning, creating and integrating developmentally appropriate curriculum and materials for working with children birth through kindergarten. Prerequisite: EDCI 62340 and Admittance to Teacher Education. (F, S)

EDCI 62532 - Family and Community Resources in Early Childhood (2)

Study of family and community resources used in working with parents and children, birth through grade 3. Prerequisite: EDCI 62340 or permission of instructor. (F, S)

EDCI 62540 - Behavior Management Techniques (3)

This course is designed to provide teachers with both technical and functional understanding of applied behavior analysis, as well as strategies for the everyday applications of behavior management in classrooms and other educational settings. Undergraduate prerequisites: Admittance to Teacher Education and at least one special education methods course (EDCI 62384 or EDCI 62386); graduate prerequisite: Degree Audit form on file or permission of instructor. (F, SS)

EDCI 62541 - Assessment and Early Intervention in Early Childhood (3)

This course is designed to enable pre-service teachers or graduate students to develop a knowledge base of assessment principles so they are able to appropriately assess children's developmental characteristics and implement intervention strategies to maximize development in young children. Prerequisite: EDCI 62340 and EDCI 62531, and Admittance to Teacher Education, or permission of instructor. (F, SS)

EDCI 62542 - Curriculum and Methods in Early Childhood Special Education (3)

This course is designed to develop skills to enable the prospective teacher of the young child with special needs (birth to age five years) to: (1) plan and organize appropriate curriculum content and learning sequences; (2) identify and implement appropriate instructional strategies, techniques, and environments; and (3) work effectively with parents and families, as well as other professionals and caregivers. Prerequisites: EDCI 62340 or EDCI 62531, EDCI 62541, EDCI 62470. (F)

EDCI 62543 - Practicum in Early Childhood (4)

Supervised practice in evaluating and teaching children from birth through grade 3. Prerequisites: EDCI 62340 and EDCI 62531, and Admittance to Teacher Education, or permission of instructor. (F, S, SS)

EDCI 62544 - Practicum in Early Childhood Special Education (3)

Supervised practice in early childhood teaching, interpreting individualized tests and application of behavior management techniques with preschool children with disabilities. Prerequisite: EDCI 62542 and Admittance to Teacher Education. (S)

EDCI 62553 - The Reading Program in the Secondary School (3)

A course for specialized personnel in reading at the secondary level. Topics will focus on means for identifying students' basic and developmental skill needs, as well as materials and techniques for instruction. (S, SS)

EDCI 62555 - Trends in Reading (1 to 3)

This course is designed to update teachers in methods, techniques and innovations in teaching reading. Repeatable with change in topic. (F, S, SS)

EDCI 62563 - Trends in Special Education (1 to 3)

This course is designed to update teachers in methods, techniques and innovations in special education. Repeatable with a change in topic. (F, S, SS)

EDCI 62574 - Teaching Math to Students with Disabilities (2)

Methods and materials used in teaching remedial math to the exceptional learner. Prerequisite: Admittance to Teacher Education. (F)

EDCI 62580 - Methods and Techniques for Teaching English Language Learners (ELL/ESOL) (3)

Designed to introduce the student to the current methods and techniques used to instruct limited English proficient students regardless of their age group or goal. Special attention is given to application of the Missouri WIDA and TESOL Standards to the development of curriculum of the content of ELL class. Explores how current trends in developing second language competence is used to teach language in ESL and mainstream classrooms through a content-based approach. Required for an ESL endorsement. (F)

EDCI 62582 - Linguistics for Teaching English Language Learners (ELL/ESOL) (3)

Examines the nature of language through a study of pragmatics, semantics, syntax, morphology and phonology. Explores language variation as it is shaped by society and culture. The concepts of first and second language acquisition, the neurological foundations of language, and the evolution of writing systems are introduced. (S)

EDCI 62591 - Seminar in Education (1)

Current Trends and Issues Seminar is a required component of the Professional Trimester experience and is taken in conjunction with the student teaching experience. It is designed to help students become reflective teachers by providing an opportunity to synthesize the student teaching experience and by providing a forum for collaborative, critical inquiry. This seminar is taken concurrently with the Directed Teaching courses (EDUC 61471, EDUC 61473 and/or EDUC 61472, EDUC 61474). (F, S)

EDUC - Education: General Leadership**EDUC 61145 - Information and Educational Technology (3)**

This educational information and technology course will provide instruction in technology language and technology use for the educator. This course is intended to serve students majoring in education to prepare them to plan, instruct, communicate and manage record keeping in addition to modeling technology use for their students.

EDUC 61200 - Special Offering (1 to 4)**EDUC 61210 - Field Experience in Diversity (1)**

The purpose of this course is to gain an understanding of people in a different culture and to become sensitive to their uniqueness. The course is a vehicle by which undergraduates in the teacher education program can experience diversity in a real-world setting, thus meeting the program's diversity requirement. (SS)

EDUC 61252 - Pluralism in a Multicultural Society (3)

This course is designed to impart a knowledge of and sensitivity to issues which foster potential prejudices and discrimination. These issues include race, national origin, sexism, religion, handicaps (physical and mental), economic position and others. Methodology in humanizing the curriculum, sensitivity issues, historical perspectives, and means by which dehumanizing biases may be recognized in instructional materials also shall be included in the content of this course. (F, S, SS)

EDUC 61260 - Secondary Teaching Practicum I (1)

Observation and participation in the secondary or junior high school with both

non-instructional and limited instructional responsibilities. A portion of this course is devoted to periodic discussion sessions. May not be taken during the same trimester as EDUC 61360. (F, S, SS)

EDUC 61262 - Middle School Teaching Practicum I (1)

Observation and participation in the middle school (grades 5-9) with both non-instructional and limited instructional responsibilities. A portion of this course is devoted to periodic discussion sessions. (F, S, SS)

EDUC 61360 - Secondary Teaching Practicum II (1)

Emphasizes practical teaching skills to include observation and practice in a supervised classroom situation including off-campus weeklong teaching placement. Prerequisite: EDUC 61260 or equivalent, and Admittance to Teacher Education. May not be taken during the same trimester as EDUC 61260. Must be taken concurrently with EDUC 61461, EDUC 61520 and Content Methods. (F, S)

EDUC 61362 - Middle School Teaching Practicum II (1)

Continues the observation and teacher-aide activities of Middle School Teaching Practicum I and gives the prospective middle school teacher additional background in practical teaching skills to observe and to practice in a supervised classroom situation. Emphasis is given to using practical approaches to everyday classroom instruction and activities. Prerequisite: EDUC 61262 or equivalent. (F, S, SS)

EDUC 61400 - Special Offering (1 to 4)

EDUC 61412 - Audio-Visual Aids (2)

An introductory course designed to familiarize teachers with the general types of audio-visual aids. (F)

EDUC 61461 - School and Society (2 to 3)

A survey of the sociological, philosophical, historical and legal foundations of education with special emphasis on staffing patterns, multicultural needs, career opportunities, organizational patterns and school/community relations. Secondary students must be enrolled concurrently with EDUC 61360, EDUC 61520 and Content Methods the semester prior to student teaching. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61462 - School and Society Seminar (1)

Course is to be taken during the student teaching trimester and is a continuation of EDUC 61461 with many of those topics re-addressed as students are actively engaged in student teaching experiences. The preparatory work done in the 2-hour credit course will serve as a foundation for discussion, for application, for reflection and for alteration. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61463 - Secondary Methods & Techniques (3)

Provides a sequence of laboratory experiences in a variety of basic teaching methods and skills such as questioning techniques, reinforcement, stimulus variation, use of illustrations and examples, demonstrations and disciplinary procedures. Also included are an introduction to innovative instructional methods, a unit on use of instructional technology and a unit on evaluative procedures. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61470 - Directed Teaching in Elementary and Secondary School (1 to 10)

This course is offered only for those seeking K-12 certification in art, music, modern languages, or physical education. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61471 - Directed Teaching in the Elementary School (1 to 14)

A gradual induction into teaching in the elementary school is provided through a progression which includes observation of the children and the work of the cooperating teacher, gradual participation, and finally directed teaching under the supervision of the cooperating teacher and the college coordinator. The candidate must have adequately fulfilled the requirements as set by the School of Education. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61472 - Directed Teaching in the Secondary School (1 to 10)

A gradual induction into teaching in the secondary school is provided through a progression which includes observation of the students and the work of the cooperating teacher, gradual participation, and finally, directed teaching under the

supervision of the cooperating teacher and the college coordinator. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61473 - Directed Teaching Early Childhood (1 to 6)

A gradual induction into teaching in an early childhood setting through a progression which includes observation of the children and the work of the cooperating teacher, gradual participation, and finally directed teaching under the supervision of the cooperating teacher and the college coordinator. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61474 - Directed Teaching in the Middle School (1 to 18)

A gradual induction into teaching in the middle school is provided through a progression which includes observation of the student and the cooperating teacher, gradual participation, and finally directed teaching under the supervision of the cooperating teacher and the college coordinator. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61480 - Directed Teaching in Early Childhood Education (1 to 6)

A gradual induction into teaching children in a preschool special education environment with emphasis on interpretation of individual tests and application of behavior management techniques. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61481 - Directed Teaching in Cross Categorical Special Education: Elementary (1 to 12)

A gradual induction into teaching students with mild disabilities in a cross categorical setting (elementary) through a progression which includes interpretation of intelligence tests, formal and informal diagnostic procedures, prescriptive instruction and practical application of teaching strategies and behavior management techniques. Prerequisite: Permission of director of educational field experiences. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61482 - Directed Teaching in Cross Categorical Special Education: Secondary (1 to 12)

A gradual induction into teaching students with mild disabilities in a cross categorical setting (secondary) through a progression which includes interpretation of intelligence tests, formal and informal diagnostic procedures, prescriptive instruction and practical application of teaching strategies and behavior management techniques. Prerequisite: Permission of director of educational field experiences and Admittance to Teacher Education. (F, S)

EDUC 61500 - Special Offering (1 to 4)

EDUC 61511 - Instructional Materials and Equipment (2)

Develops a basic pattern for the preparation of instructional materials, discusses the principles and practices and the utilization of these materials, and provides for instruction for the proper use of equipment in various types of school and educational programs.

EDUC 61520 - Techniques of Classroom Management and Discipline (2)

This course is designed to assist prospective teachers in developing classroom and behavior management techniques. Must be taken concurrently with EDUC 61360, EDUC 61461 and Content Methods. Prerequisite: Admittance to Teacher Education. (F, S)

EDUC 61521 - Seminar in Classroom Management (1)

Course is taken during the student teaching trimester and is a continuation of EDUC 61520 with many of those topics readdressed as students are actively engaged in student teaching experiences. The preparatory work done in the 2-hour credit course will serve as a foundation for discussion, for application, for reflection and for alteration. Must be taken concurrently with student teaching and EDUC 61462. (F, S)

EDUC 61528 - Teaching of the Gifted (3)

Methods, techniques, and materials used in the teaching of the gifted. (S, even years)

EDUC 61530 - Problems of Adult Education (2)

An overview of the growth and need for continuous education through adulthood; emphasis is placed on programs, surveying community needs and coordination of community agencies. (F, even years)

EDUC 61549 - Trends in Continuous School Improvement (1 to 3)

This course is designed to facilitate a continuous learning process throughout the educational system to positively impact student achievement.

EDUC 61550 - Trends in Curriculum Development (1 to 3)

This course is designed to assist teachers and/or administrators in general curriculum design, revision, and or evaluation. Repeatable with a change in topic. (F, S, SS)

EDUC 61551 - Trends in Language Arts (1 to 3)

This course is designed to update teachers in methods, techniques, and innovations in teaching language arts. Repeatable with a change in topic. (F, S, SS)

EDUC 61552 - Trends in Social Studies (1 to 3)

This course is designed to update teachers in methods, techniques, and innovations in teaching social studies. Repeatable with a change in topic. (F, S, SS)

EDUC 61553 - Trends in Mathematics (1 to 3)

This course is designed to update teachers in methods, techniques, and innovations in teaching mathematics. Repeatable with a change in topic. (F, S, SS)

EDUC 61554 - Trends in Science (1 to 3)

This course is designed to update teachers in methods, techniques, and innovations in teaching science. Repeatable with a change in topic. (F, S, SS)

EDUC 61556 - Trends in Classroom Management (1 to 3)

This course is designed to update teachers in methods, techniques, systems, and innovations in classroom management and discipline. Repeatable with a change in topic. (F, S, SS)

EDUC 61557 - Trends in Computer Use in Education (1 to 3)

This course is designed to update teachers in educational uses of computers. Repeatable with a change in topic. (F, S, SS)

EDUC 61558 - Trends in Motivational Techniques (1 to 3)

This course is designed to update teachers in methods, techniques, and innovations in classroom motivation of students. Repeatable with a change in topic. (F, S, SS)

EDUC 61559 - Trends in Instructional Techniques (1 to 3)

This course is designed to update teachers in general instructional methods and techniques for the classroom. Repeatable with a change in topic. (F, S, SS)

EDUC 61569 - Multiculturalism in Education (3)

This course is designed to impart a knowledge of and sensitivity to issues which foster potential prejudices and discrimination. These issues will include race, national origin, sexism, religion, handicaps (physical and mental), economic position and others. Methodology in humanizing the curriculum, sensitivity issues, historical perspectives, and means by which dehumanizing biases may be recognized in instructional materials shall also be included in the content of this course. Prerequisite: Junior classification. (F, S, SS)

EDUC 61570 - The Middle School (3)

Designed to acquaint prospective or experienced teachers and administrators with the functions, organization, curriculum, and personnel associated with the middle school; with concentration on the early adolescent/transescent learner. (S, SS)

EDUC 61585 - Co-Curricular Activities in the Secondary School (3)

The importance of co-curricular activity is studied through the philosophy, purpose, and practices of these activities in the modern secondary school. Also emphasized is the role of the teacher-sponsor in the program.

EDUC 61598 - Problems-Secondary (1 to 4)

Designed to meet individual student needs in independent study. The study topic must be approved by the instructor.

ENGL - English**ENGL 10200 - Special Offering (1 to 4)**

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Students may repeat this course with a change in topic. Credit and prerequisites as announced.

ENGL 10300 - Special Offering (1 to 4)

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Students may repeat this course with a change in topic. Credit and prerequisites as announced.

ENGL 10400 - Special Offering (1 to 4)

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Students may repeat this course with a change in topic. Credit and prerequisites as announced.

ENGL 10425 - Knacktive (3)

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more information. Course is repeatable for additional experience. A maximum of three credit hours may be applied to the major or minor. (S)

Grammar and Linguistics**ENGL 10403 - Studies in Language (3)**

Studies of issues related to linguistics, with emphasis on English-language applications beyond traditional or schoolhouse grammar. Specific subject matter of course will change each trimester. Possible topics include Ambiguity and Poetics, English and Politics, History and Science of Lexicography, Issues in Translation, Language Acquisition, Philosophies of Language, and so forth. Students may repeat the course with a change in topic. (F)

ENGL 10404 - Schoolhouse Grammars and Pedagogy (3)

Examination of traditional schoolhouse grammars as they are indicative of the issues facing students in today's secondary classrooms. Includes a rigorous study of the literature surrounding the teaching of grammar in K-12 schools and an exploration of effective pedagogical approaches to the teaching of grammars in secondary schools. (S)

ENGL 10409 - Directed Reading in Linguistics (1 to 3)

Tutorial for individual student projects. Instructor's permission required. Students may repeat this course with a change in topic. (F, S)

ENGL 10501 - Writing and Pedagogy (3)

A study of composition theory, rhetoric, and/or the pedagogy of writing. The specific subject matter and emphasis will change each trimester. Possible topics include "Theories of Teaching Composition," "Digital Rhetoric," and "Writing is a Process, Now What?" Students may take this course multiple times with a change in topic.

ENGL 10504 - Language and Linguistics (3)

A sociocultural linguistic study of the history of the English language, its grammar(s), and/or dialects, addressing historical and/or current language theories. The specific subject matter and emphasis will change each trimester. Possible topics include "The History of the English Language," "Dialects and Diversity," and "Do You Speak Midwestern?" Students may take this course multiple times with a change in topic.

Literature**ENGL 10220 - Introduction to Literature (3)**

A general introduction to literature organized around central themes in our global society. Selected themes will vary, but each course offering will include (1) literature from various genres, (2) literature from three centuries and (3) readings from at least three of four distinct cultural categories. Satisfies the Literature requirement in The Northwest Core. (F, S)

ENGL 10224 - Multiethnic Literature of the United States (3)

Focuses on the literature of African Americans, Native Americans, Chicanos/Chicanas and Asian Americans. Includes close critical reading of a variety of texts as well as attention to the cultural contexts from which the literature derives. (F)

ENGL 10226 - Modern and Contemporary World Literature (3)

Although paying some attention to parallel themes in the world literature of post-1900 Europe, the course focuses on non-Western literature of the twentieth century and later. It includes close critical reading of a variety of genres as well as attention to the cultural

contexts from which the literature derives.
(S)

ENGL 10233 - American Literature:

Beginnings to 1865 (3)

Development of American literature from the early Colonial period to the mid-19th century. Readings include Edwards, Hawthorne, Poe, Melville, Emerson, Thoreau, Dickinson and Whitman. (F, S)

ENGL 10234 - American Literature: 1865 to the Present (3)

Development of American literature from the end of the Civil War to the present. Readings include Twain, Norris, Crane, Hemingway, Faulkner, Wright, Momaday, Frost, Eliot, Stevens, Hughes and Brooks. (F, S)

ENGL 10245 - English Literature: Beowulf through the 18th Century (3)

A study of selected English literary masterpieces and their backgrounds from the Anglo-Saxons through Boswell's biography of Samuel Johnson. Readings include Chaucer, More, Spenser, Marlowe, Shakespeare, Donne, Milton, Pope, Swift and Boswell. (F, S)

ENGL 10246 - English Literature: Romantics to the Present (3)

English literature from the Romantics to the present, including works by Wordsworth, Byron, Keats, Shelley, Browning, Tennyson, Wilde, Hardy, Yeats, Woolf, Joyce, Lawrence, Lessing, Eliot and Auden. (F, S)

ENGL 10305 - The Literary Critic's Craft (3)

A course examining the practice of literary criticism over time and especially in the past century. This course shows such criticism being used in reflection on major texts during what have been on-going debates about the literature scholar's discipline.

ENGL 10325 - Special Studies (1 to 3)

An intensive study of a literary theme, a genre or an approach to writing, language or literature. The subject matter or emphasis will change each trimester. Students may repeat this course with a change in topic. (F, S)

ENGL 10331 - The Bible and Literature (3)

Study of Bible stories as key narratives of Middle Eastern and Western culture, both in their original Biblical contexts and in adapted versions prepared by literary writers of many later eras. Tales from both Old and New

Testaments are featured, along with adaptations of them by later poets, playwrights, and novelists.

ENGL 10341 - Literature and Film (3)

This course will examine the interrelationship between film and literature by studying various literary forms -- novels, short stories, non-fiction and poetry -- alongside related motion pictures and genres. Prerequisites: ENGL 10111 and ENGL 10112, or ENGL 10115; and ENGL 10220.

ENGL 10343 - Survey of Women's Literature (3)

A study of women's literature in all genres from the Middle Ages to the present. Readings may include Kempe, Lanyer, Behn, Wollstonecraft, Chopin, Gilman, Woolf, Lessing, Atwood, Kingston, Silko and Walker. (S, alt. years)

ENGL 10351 - Science Fiction Literature (3)

An examination of the history, thematic development, and artistic and social impact of science fiction, especially in print but not exclusive of other literary media. A fundamental goal of the course will be to interrogate how science fiction, which exemplifies the broader genre of fantastic literature, is not only fantastic but also literature. Prerequisites: ENGL 10111 or ENGL 10115; and ENGL 10220.

ENGL 10372 - Introduction to Shakespeare (3)

An introduction to Shakespeare's most popular and/or important plays and poems, including the sonnets, *Romeo and Juliet*, *The Taming of the Shrew* and such works as *The Tempest*, *Hamlet*, *Macbeth*, *A Midsummer Night's Dream*, *Richard III* and *Venus and Adonis*. (F, alt. S)

ENGL 10428 - Directed Reading in Literature (1 to 6)

Tutorial for individual student projects. Instructor's permission required. Students may repeat this course with a change in topic. (F, S)

ENGL 10462 - Advanced British Literature (3)

This course may focus on any period or aspect of British literature. The class might focus on a particular author (e.g. *Where Angels Fear to Tread*: E.M. Forster, *The World of J.R.R. Tolkien*); a group of writers (e.g. *The Bloomsbury Group*, *The Sons of Ben*

Jonson); the literature of a specific period, genre or place (e.g. Irish Modernism, Medieval Drama); or a specific theme (e.g. Victorian Stunners, Virginia Woolf's Feminism). Students may repeat the course with a change in topic.

ENGL 10463 - Advanced American Literature (3)

This course may focus on any period or aspect of American literature. The class might focus on a particular author (e.g. Leaves and/or Grass: Walt Whitman, The Awakening of Kate Chopin), a group of writers (e.g. African American Writers between the Wars, American Modernist Poets); the literature of a specific period, genre or place (e.g. Twenty-First Century American Fiction, American Nature Writing) or a specific theme (e.g. Gender Memoir, Sense Sentiment in Nineteenth-Century Women's Literature). Students may repeat the course with a change in topic.

ENGL 10464 - Advanced World Literature (3)

This course may focus on any period or aspect of World literature. The class might focus on a particular author (e.g. Tolstoy, Chinua Achebe), a group of writers or a genre (e.g. Trans-Atlantic Romanticists, Contemporary World Drama); the literature of a specific period or place (e.g. Classical Epic Poetry, South American Magic Realism); or a specific theme (e.g. poetry in Translation: Issues Answers, Post Colonial Literature). Students may repeat the course with a change in topic.

ENGL 10520 - Studies in Early British Literature (3)

A study of genres, figures, and/or issues from British literature of the Medieval and Renaissance periods. Specific subject matter and emphasis of course will change each trimester. Possible topics include Middle English Literature, which would include Medieval writers such as Chaucer, Margery Kempe, and Sir Thomas Malory; Renaissance Drama, examining the works of authors such as Christopher Marlowe, Elizabeth Cary, and Shakespeare; or intensive focus on the works of a specific writer such as the Pearl Poet, Edmund Spenser, or John Milton. Students may repeat the course with a change in topic.

ENGL 10530 - Studies in British Literature, 18th Century-Present (3)

A study of genres, figures, and/or issues from British literature of the past 300 years. Specific subject matter and emphasis will change each trimester. Possible topics include Literature of the Romantic Movement, examining works by authors such as Emily Bronte, William Wordsworth, Mary Shelley, and Lord Byron; The Victorian Age, featuring writers such as Charles Dickens, Elizabeth Barrett Browning, and Rudyard Kipling; or Twentieth-Century British Fiction, including writers such as Joseph Conrad, Virginia Woolf, James Joyce, and Anthony Burgess. Students may repeat the course with a change in topic.

ENGL 10540 - Studies in Multiculturalism and World Literature (3)

An intensive study of World Literature or Multicultural Literature. Specific subject matter and emphasis of course will change each trimester. Possible topics might include Literature of the Harlem Renaissance, with works by authors such as Hughes, Toomer, McKay, Hurston, and Bontemps; The Development of the Modern Novel, examining novels by authors such as Petronius, Boccaccio, Cervantes, Voltaire, Austen, Dostoevsky, Woolf, Beckett, Robbe-Grillet, Morrison, and Achebe; or Anglophone Literature: Fiction of the Post-Colonial World, including works by Rushdie, Naipaul, Gordimer, Lessing, Coetzee, White, Atwood, Munro, and Achebe. Students may repeat the course with a change in topic.

ENGL 10550 - Studies in American Literature (3)

An intensive study of topics in American Literature. Specific subject matter and emphasis will change each trimester. Sample topics include American Romanticism, with such authors as Emerson, Thoreau, Fuller, Whitman, and Dickinson; The Small Town in American Literature, with works by Hawthorne, Twain, Anderson, Lewis, Gaines, Lee, King, Morrison, and Faulkner; American Modernism and the Long Poem, examining the long works of Whitman, Eliot, Williams, H.D. Stevens, Seamus Heaney, and Rita Dove. Students may repeat the course with a change in topic.

Pedagogy

ENGL 10321 - Teaching Reading in Middle and Secondary English Classrooms (3)

This course addresses theoretical positions, instructional frameworks, and assessment approaches for teaching reading. Students

studying to be middle and secondary English teachers will approach reading from multiple frameworks - including reading as information processing, reading as skills/strategies, reading as social-cultural construction, reading as inquiry, and reading as engagement - and consider instruction and assessment grounded in research-based "best practices." (F)

ENGL 10322 - Introduction to the Teaching of Writing (3)

Strategies for effective teaching of writing, with some background on writing research and theory. (S)

ENGL 10380 - Practicum in Teaching Writing Skills (1)

Laboratory practice in teaching developmental writing skills and tutoring in a small-group setting. (F)

ENGL 10580 - Methods in Secondary School English (3)

Study and practice in strategies for effective teaching of the English language arts in secondary schools. Includes materials, methods, planning, assessment and evaluation, and current issues and trends in teaching the English language arts. Prerequisite: Admittance to Teacher Education. (F)

ENGL 10590 - Young Adult Literature (3)

A study of literature for grades 7 through 12 and the ways that literature can be taught in the classroom. The course teaches students to judge young adult literature by accepted and respected critical standards and to understand what makes the literature suitable for students. (S)

Writing

ENGL 10101 - English as a Foreign Language (3)

For the individual needs of students whose native language is not English. Meets five times per week. Does not fulfill the ENGL 10110 or ENGL 10111 requirement.

ENGL 10110 - Introduction to College Writing (3)

A college-level composition course designed to develop skills in prewriting, drafting, editing and rewriting. Two hours of lab per week. Required of students with ACT English subscore of 17 or below. (F, S)

ENGL 10111 - Composition I: Academic Literacies (3)

Study and practice in reading and writing texts towards development of college-level academic literacies. Students will engage through writing and reading in knowledge-based inquiry and sustained critical thinking for the purpose of better understanding the subject or issue. Concepts taught will include academic rhetoric and argumentation, research and documentation. Prerequisite: A grade of C or better in ENGL 10110, an ACT English subscore of 18 or higher, or successful placement challenge.

ENGL 10112 - Composition II: Writing as Engagement (3)

Study and practice of writing as a form of engagement in public and personal contexts. Builds on skills practiced in English 111 (academic rhetoric, argumentation, research, and documentation) while broadening the contexts in which these skills are used. Students will complete an extensive writing project which may incorporate various forms of writing and other media. Prerequisite: ENGL 10111.

ENGL 10115 - Accelerated Composition (3)

Combines the course material of ENGL 10111: Composition I - Academic Literacies and ENGL 10112: Composition II - Writing as Engagement into one semester. Skills covered will include those required for academic literacies, such as academic rhetoric, argumentation, and research, as well as those applicable to writing and reading beyond the university. Students will complete an extensive writing project which may incorporate various genres and media as well as primary and secondary research. For further information, see the course descriptions for ENGL 10111 and ENGL 10112. Satisfactory completion of this course fulfills all six hours of The Northwest Core requirements for Written Communication. Three, GPA bearing, credit hours will be applied for ENGL 10115. Three, non-GPA bearing, credit hours will be applied as credit for the required ACT score. Prerequisite: ACT English subscore of 27 or higher. (F, S)

ENGL 10203 - Writing and Rhetoric (3)

Writing and Rhetoric is an introductory course that explores the relationship of rhetorical theory to past and contemporary forms of written communication, both digital and offline. Students will use the tools of rhetoric to analyze writing, write persuasively, and think critically about both

contemporary and classical rhetorics across an array of cultural contexts. This course may be used to satisfy the written communication requirement in The Northwest Core for students who enter the University with credit for only ENGL 10112. Prerequisite: ENGL 10112 or ENGL 10115. (F)

ENGL 10210 - Introduction to Creative Writing (3)

A multi-genre introduction to creative writing. Emphasis is on producing and responding to creative work in various genres including poetry, fiction and creative nonfiction. Prerequisite: ENGL 10112 or ENGL 10115. (F, S)

ENGL 10311 - Advanced Composition (3)

Advanced study of writing, especially techniques of rhetoric, argumentation and research. Prerequisite: ENGL 10112 or ENGL 10115. (F, S)

ENGL 10312 - Creative Writing: Creative Nonfiction (3)

Composition of original creative nonfiction. Students have the opportunity to study published works, write original works, critique the works of others and consult with the professor about their works on a regular basis. Prerequisite: ENGL 10112 or ENGL 10115. (Alt. years)

ENGL 10313 - Creative Writing: Fiction (3)

Composition of original short stories or other forms of prose fiction. Students have the opportunity to study published works, write original works, critique the works of others and consult with the professor about their works on a regular basis. Prerequisite: ENGL 10112 or ENGL 10115. (F)

ENGL 10314 - Creative Writing: Poetry (3)

Composition of original poetry and study of poetic forms and techniques. Students have the opportunity to study published works, write original works, critique the works of others and consult with the professor about their works on a regular basis. Prerequisite: ENGL 10112 or ENGL 10115. (S)

ENGL 10315 - Writing for the Professions (3)

Instruction and practice in the practical application of effective writing strategies for government, business and industry, including but not limited to reports, memos, causal analyses, mechanism descriptions, definitions, persuasive letters and feasibility

studies. Prerequisite: ENGL 10112 or ENGL 10115 or permission of instructor.

ENGL 10316 - Creative Writing: Playwriting (3)

Composition of original short plays, dramatic scenes and monologues. The course provides an examination of the elements, discipline and art of playwriting through analysis of established plays and creation of original short plays, dramatic scenes and monologues. Cross listed as THEA 43316 Playwriting. Prerequisites: ENGL 10210 or THEA 43225 or permission of instructor.

ENGL 10405 - Senior Seminar (3)

A capstone course focused on further practice in researching and writing about literature and the teaching of literature. In addition to compiling a portfolio of materials to aid in application to graduate schools or teaching positions, students will have the opportunity to practice public presentation of their writing in order to synthesize various elements of critical thinking, reflect on major texts and demonstrate research abilities as well as analytic skills in the discipline. Prerequisite: ENGL 10580 (for B.S.Ed.-Minor Required students only) OR ENGL 10305 (for all other majors).

ENGL 10410 - Professional Portfolio Preparation (3)

A capstone class for B.S. in English students, focused on preparing a professional portfolio to facilitate application for jobs in writing, editing and publishing. Prerequisite: Senior standing or instructor permission.

ENGL 10414 - The Structure and Theory of Creative Writing (3)

An intermediate creative writing course that investigates the history and formative statements of creative writing through reading, writing, and discussion. Readings include theoretical essays regarding the purpose and role of the writer in society, the rhetoric of structure and major statements on the art. The specific contents of the course changes each time the course is offered. Course topics might include Poetic Forms, Prose Poetry, Critical Reading for Creative Writers, Writing the Natural World, Micro Fiction, Lyric Essays, Personal Reportage and Memoir. Students may repeat the course with a change in topic. Prerequisite: the relevant 300-level creative writing class or instructor permission.

ENGL 10419 - Directed Writing (1 to 4)

Independent work in creative or expository writing. Instructor's permission required. Students may repeat this course with a change in topic. (F, S)

ENGL 10430 - Writing for the Online Age (3)

Addresses the changing environments and situations facing writers due to the ever-increasing presence of computer and internet technology. Emphasizes planning and creating documents in a number of technology-rich situations. The specific content of the course will vary each trimester, with possible topics such as Internet Rhetoric, Writing With New Media, Literature, Hypertext and Other Media Influences, or Technology and Collaborative Writing. While students may be required to learn the basics of Web page construction through an HTML editor, this is not a course in coding or graphical design except as far as these subjects intersect with writing. Students may repeat the course with change of topic. Prerequisite: ENGL 10112 or ENGL 10115.

ENGL 10495 - Internship in Writing and Research (1 to 8)

Internships (paid and unpaid) will be offered as available or as located by students. Internships require a written proposal at the time of registration and permission of the instructor and department chair. Fifty work hours are required for each hour of academic credit. A maximum of three credit hours may be applied to the major or minor. Course may be repeated for a maximum of 11 hours. Prerequisites: Junior standing and three hours of writing courses at the 300 level or above.

ENGL 10512 - Publication Skills (3)

This course covers major skills required in publishing, provides an overview of the publishing industry, and prepares students for work in areas of technical writing, magazine editing and freelance copyediting. Prerequisites: Junior or graduate student standing, or instructor permission.

ENGL 10515 - Advanced Writing for the Professions (3)

Advanced Professional Writing engages students in the conscious study and practice of professional writing towards a more complex understanding of writing as an essential workplace function. Students will study writing in a workplace, generate a series of workplace-oriented communications, and research issues related

to workplace communications. Prerequisite: ENGL 10315, or instructor approval. (S)

ENGL 10560 - Advanced Creative Writing (3)

An advanced course in the study and writing of original poetry, fiction, or creative non-fiction. Specific subject matter and emphasis will change each trimester. Students may repeat the course with a change in topic. Prerequisite: A 300- or 400-level creative writing class or consent of instructor.

FIN - Finance

FIN 53100 - Special Offering (1 to 2)

FIN 53120 - Personal Money Management (3)

An introduction to the basic principles and practice of successful personal money management. The life cycle of personal financial planning and management will be discussed. (SS)

FIN 53200 - Special Offering (1 to 4)

FIN 53300 - Special Offering (1 to 4)

FIN 53311 - Business Law I (3)

Fundamental principles of law in relation to the legal environment of business, including procedure and evidence, business ethics, court systems, contracts, torts, administrative law and constitutional law. (F, S, SS)

FIN 53312 - Business Law II (3)

Fundamental principles of law in relation to business, including agency, negotiable instruments, secured transactions, bankruptcy, partnerships, corporations and other business entities. (F)

FIN 53320 - Insurance and Risk (3)

A study of the principles of insurance, including the various types of insurance coverages such as home, auto, life and health, as well as principles of risk management. (S, SS)

FIN 53324 - Fundamentals of Business Finance (3)

A study of the financial structure of corporations, principles and techniques used in financial analysis and decision-making. Prerequisites: ACCT 51202 and MATH 17118 or consent of instructor. (F, S, SS)

FIN 53325 - Investment Principles (3)

A study of the principles of investment and investment vehicles. Prerequisite: FIN 53324 with a minimum grade of C. (F)

FIN 53326 - Investment Management (3)

A course dealing with fixed income, derivatives, and foreign exchange. Prerequisite: FIN 53324 with a minimum grade of C.

FIN 53327 - Intermediate Financial Management (3)

An in-depth study of financial theory and practices including such topics as capital structure, dividend policy, capital budgeting, asset pricing and working capital management. Prerequisite: FIN 53324 with a minimum grade of C. (S)

FIN 53400 - Special Offering (4)**FIN 53420 - Financial Institutions (3)**

A course which deals with structure, functions, policies and decision-making within financial institutions. Prerequisites: FIN 53324 with a minimum grade of C. (S)

FIN 53421 - Selected Cases in Finance (3)

An advanced case study course dealing with the management of corporate finance. Prerequisites: FIN 53327 with a minimum grade of C. (F)

FIN 53422 - Real Estate Management (3)

A course designed to integrate the legal, economic and investment perspectives of real estate. The course includes a study of property rights, real estate transactions, real estate markets, real estate investment approaches and investment market valuation. (S, even years)

FIN 53425 - Intern in Finance (1 to 3)

Students who are finance majors may enroll, with the permission of the School Director, in an intern program with an approved business firm. This is recommended after completion of the junior year. This course is repeatable for new experience. (F, S, SS)

FIN 53429 - Independent Study in Finance and Insurance (1 to 3)

Finance majors may, with approval, enroll in an independent study section. The approval must be received from School Director and should be received during the term preceding the enrollment. This course is repeatable with topics changing. (F, S, SS)

FIN 53500 - Special Offering (1 to 4)**GEOG - Geography****GEOG 32101 - Introduction to Geography (3)**

Survey course designed to familiarize students with the geographic studies including the relationship between humans and the natural environment as well as spatial patterns of human activities. Cultural, socio-economic, political and physical spatial patterns relating to an increased understanding of contemporary local, national and global issues will be emphasized. (F, S, SS)

GEOG 32102 - People and Cultures of the World (3)

Course introduces a geographical perspective that examines the cultural, political, and physical processes that shape the diverse regions of the world. (F, S, SS)

GEOG 32201 - Maps and Map Interpretation (3)

This course introduces concepts such as map projections, map distortion, coordinate systems, and map measurement techniques designed to help students learn how to analyze and interpret map information. (F, SS)

GEOG 32207 - GPS Fundamentals (3)

An introductory course to the Global Positioning System and the integration with other geospatial technologies, such as Geographic Information System (GIS) and remote sensing, for field or in-office work. (F, S)

GEOG 32211 - Special Topics in Geography (1 to 4)

This course will be offered according to student needs and interest. Each offering will be designed to incorporate the latest information pertaining to a timely topic in geography. May be repeated once to earn no more than six credits total. (F, S, SS)

GEOG 32221 - Economic Geography (3)

Survey course dealing with the interrelationships of geography and the human attempt to make a living. Such topics as capitalism, population, resources, and industry will be considered. (S)

GEOG 32302 - Cadastral Mapping (2)

A course in theory, concepts, and practice of creating and maintaining a digital database of property boundaries using current software tools. Prerequisite: GEOG 32201 or permission of instructor.

GEOG 32340 - Geography of North America (3)

An introduction to the regional approach that examines variations in the physical and human geography focused on the United States and Canada. (F)

GEOG 32360 - Dynamic and Synoptic Meteorology (3)

A study of the physical characteristics of the atmosphere and the variables that control day-to-day weather at local and regional (synoptic) scales. Prerequisite: GEOG 32101 or GEOL 27114 and GEOL 27115. (S, even years)

GEOG 32361 - Climatology (3)

Climate types and their significance to ecosystems and human activities are discussed. Emphasis is placed on applied climatology, paleoclimatology and the significance of climate change. Prerequisite: GEOG 32360 or GEOL 27114 and GEOL 27115. (S, odd years)

GEOG 32362 - Cartography (3)

An introductory course on map design, compilation and construction. The course utilizes computer cartography and map design encompassing the theoretical and applied aspects of the collection, organization, manipulation, and display of geographical data. Prerequisite: GEOG 32201 or permission of instructor. (S)

GEOG 32363 - Remote Sensing (3)

A study of the technologies used in earth observation. The focus is on the use of aerial photography and satellite imagery for geological and geographic research. Prerequisite: GEOG 32201 or permission of instructor. (F)

GEOG 32365 - Geographic Information Systems (3)

An introduction to geographic information systems encompassing the theoretical and applied aspects of the collection, storage, analysis and display of spatial (geographical) data. Prerequisite: GEOG 32201 or junior standing. (F, S)

GEOG 32370 - Natural Disasters (3)

A course designed to analyze the processes that result in disasters, both natural and human-induced. Topics such as preparedness, mitigation and prevention of disasters will also be discussed. Prerequisite: GEOG 32101 or GEOL 27114. (S)

GEOG 32409 - Independent Study in Geography (1 to 3)

Offered only by special arrangement and with the consent of the instructor involved and the department chairperson. Requires written proposal at time of registration. Repeatable for additional experience.

GEOG 32410 - Geographic Thought and Research Methods (3)

An advanced course in geographic research, emphasizing data collection, analysis and presentation. The course will also examine the history of geographic thought in the U.S. Prerequisites: GEOG 32201 and junior standing. (F)

GEOG 32415 - Internship in Geography (1 to 6)

Students register for internship credit with the permission of the instructor, department chairperson, and a written proposal at the time of registration. The internship packet available from the Department of Humanities and Social Sciences specifies the requirements for earning academic credit for the internship. Student enrolls in the appropriate number of credit hours for the workload of the internship. As a guideline, 160 work hours are worth 3 credit hours. Repeatable for additional experience. (F, S, SS)

GEOG 32441 - Geography of Europe (3)

An advanced regional course focused on the physical and human geography of Europe from the North Atlantic to the Urals. (S, alternate years)

GEOG 32442 - Geography of Asia (3)

An advanced regional course focused on the physical and human geography of Asia (including Southeast, East, and South Asia). (S, alternate years)

GEOG 32443 - Geography of the Middle East (3)

An advanced regional course focused on the physical and human geography of Southwest Asia and North Africa. (S, even years)

GEOG 32444 - Geography of Africa (3)

A comprehensive course study of the physical and cultural geography of the African continent. (S, even years)

GEOG 32445 - Geography of Latin America (3)

A systematic and regional approach to the physical and human geography of Latin America. The course emphasizes culture, politics, development, and resource utilization. (F, alternate years)

GEOG 32465 - Introduction to Customized GIS (3)

A course designed to apply state-of-art programming language to customize and automate GIS tasks. Customization of GIS provides users with personalized and specialized functions and interfaces while automation makes daily geoprocessing analysis easier and faster. Prerequisites: GEOG 32365. (F)

GEOG 32499 - Senior Seminar (1)

A capstone course in geography. Course is designed to assess the student's ability to synthesize and evaluate geographic knowledge as it applies toward professional enhancement and/or further professional development in higher education. Prerequisites: Senior standing and completion of the Geography Core. (F)

GEOG 32500 - Special Offering (1 to 4)

One-time course offering in a timely area of geography. Repeatable for new topics.

GEOG 32501 - Conservation of Natural Resources (3)

A study of the earth's environment and resource limits as related to population growth and humankind's need to provide food, water, mineral resources and energy in order to survive and prosper. Emphasis is placed on developing an appreciation for the interconnectedness of the natural world and the potential consequences of disrupting those connections. (F)

GEOG 32510 - Geographic Education: Themes and Materials (2)

Designed for elementary or secondary teachers wishing to incorporate an instructional unit in geography in either the social science or science curriculum. (SS)

GEOG 32511 - Special Topics in Geography (1 to 4)

Will be offered according to student needs and interest. Each offering will be designed to incorporate the latest information pertaining to a timely topic in geography. Topics may include: applied geographic information systems, urban and regional planning, location analysis, geography of sport, etc. Prerequisites: 12 hours of geography and permission of instructor. Repeatable for new area of study to earn no more than six credits total. (F, S, SS)

GEOG 32520 - Military Geography (3)

An advanced course in geography that applies both physical and human spatial approaches to the study of military issues across the spectrum of conflict (F, odd years).

GEOG 32521 - Political Geography (3)

An advanced course in geopolitics with emphasis on fundamental principles and their application to the major regions and nations of the world today. Prerequisite: Junior standing or permission of instructor. (F, even years)

GEOG 32522 - Urban Geography (3)

An advanced course offering an in-depth study of characteristics of cities and problems faced in urban environments. The course emphasizes how historical, social, and cultural factors shape cities. Prerequisite: Junior standing or permission of the instructor. (S)

GEOG 32543 - Applications of Remotely Sensed Data (3)

This course integrates the use of remotely sensed information into a Geographic Information System (GIS) environment. Emphases are placed on understandings of image formats, sources on the Internet, composite color display scheme, visual interpretation, and getting data out of images. (online, F, SS)

GEOG 32545 - Principles of GIS (3)

GIS is a powerful technology for managing and analyzing geographic data. This course provides students with the conceptual background including a rigorous study of fundamental geographic information systems principles, including the nature of spatial data, vector and raster data models, and key GIS analysis operations. It provides a strong foundation for advanced courses or work in GIS. (online, F, S)

GEOG 32562 - Digital Cartography and Geovisualization (3)

A computer aided cartography course surveying various mapping techniques with GIS software. This course emphasizes the quality of the map as a whole and individual map elements as well as introducing various techniques for visualizing geographic data. Prerequisite: GEOG 32362 or GEOG 32545 with a minimum grade of C, or permission of instructor. (F)

GEOG 32563 - Digital Image Processing (3)

An advanced remote sensing course focusing on techniques for displaying, processing, modifying, transforming, and analyzing remotely sensed images. This course stresses the ability to extract data and information out of images. Prerequisite: GEOG 32363 or GEOG 32543 with a minimum grade of C, or permission of instructor. (S)

GEOG 32565 - Advanced Geographic Information Systems (3)

Builds on the techniques and concepts learned in Geographic Information Systems (GEOG 32365). Stresses research and project design strategies and advanced analytical techniques using geographic information systems to solve spatial problems. Prerequisites: GEOG 32365. (S)

GEOG 32580 - Spatial Analysis and Geostatistics (3)

Designed to make the student familiar with the analysis and statistical tools used by geographers. Covers the fundamental aspects of geostatistics that are used in research and business environments. (online, F).

GEOL - Geology**GEOL 27110 - General Geology (3)**

A study of Earth as a dynamic planet, with a focus on internal and external processes. Common themes include: earth materials, earthquakes, volcanism, mountain building, streams, groundwater, and surficial processes. When possible, these processes are placed in the context of human uses and other impacts. Three one hour lectures per week. GEOL 27111 must be taken concurrently. (F, S, SS)

GEOL 27111 - General Geology Laboratory (1)

'Hands-on' laboratory instruction in identification of common minerals and rocks,

the uses of topographic maps, surface and subsurface processes, and water and related resources. Laboratory methods may include physical identification, pen and paper analyses, and computer-based data analyses. (F, S, SS)

GEOL 27114 - General Earth Science (3)

A general introductory survey of the earth sciences of physical geography, geology, oceanography, climatology and meteorology. The connection between the various components of the earth system will be analyzed. Recommended to fulfill a Northwest Core requirement. GEOL 27115 must be taken concurrently. (F, S, SS)

GEOL 27115 - General Earth Science Laboratory (1)

This course gives students a chance to apply, through written exercises, the concepts discussed in GEOL 27114. (F, S, SS)

GEOL 27130 - Information Technology and Science (3)

Course studying the basics of computer systems and software used at Northwest as well as the professional world. Topics reviewed will include studies of PC-based computer systems, use of the Northwest network system, effective use of Internet resources and common productivity software (such as office programs, suites, e-mail, Web-course) with particular emphasis on applications to science and technology. Three lecture hours each week. (SS)

GEOL 27200 - Special Offering (1 to 4)**GEOL 27212 - Historical Geology (4)**

This course employs a study of deep time, important rock units, plate tectonics and the fossil and stratigraphic records to illuminate the physical and biological evolution of Earth. Special emphasis is placed on the formation and subsequent physical evolution of North America, and the origin and evolution of life as understood from evidence in the fossil record. The course consists of three lectures per week and concurrent enrollment in the weekly two-hour laboratory. Prerequisite: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115. (S)

GEOL 27214 - Gemology (3)

An introduction to gemology including description, identification, grading of gems and their substitutes. (alt. trimesters, alt. years)

GEOL 27220 - Mineralogy (4)

A survey of chemical and physical mineralogy including identification of minerals, structural grouping of minerals, occurrence of silicate minerals, as well as deposits and uses of nonsilicate minerals. Three lectures and one two-hour lab. Prerequisites: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115 and CHEM 24112 and CHEM 24113 or permission of instructor. (F)

GEOL 27305 - Practicum in Teaching Laboratory (1)

To assist faculty in beginning level laboratory situations in classes like GEOL 27111, GEOL 27115, GEOL 27220 and for preparation for teaching positions in graduate school. Prerequisites: Successful completion of the course, permission of the laboratory instructor and department chairperson and a major or minor in geology or geography. (F, S, SS)

GEOL 27320 - Geology Field Trip (1 to 3)

This course is designed to introduce students to the use of basic field investigation to understand geologic processes from evidence in the rocks. Field trip localities are selected to provide an introduction to minerals, rock types, fossils, structures, landforms, or other geologic phenomena that are not found locally. Prerequisite: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115 or permission of the instructor. Repeatable for new area of study. (F)

GEOL 27326 - Geology of the Natural Parks (3)

A study of the geologic features of the 38 U.S. National Parks including consideration of their causes and changes. Prerequisite: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115. (F)

GEOL 27335 - Physical Oceanography (3)

A study of the oceans including the physical properties of the oceans and marine geology. Prerequisite: Completion of general education science requirement. (S, even years)

GEOL 27340 - Introduction to Hydrogeology (3)

A study of practical hydrogeologic principles typically used in the environmental consulting industry. Topics studied cover the occurrence, movement, quality, contamination and management of groundwater. Two lecture hours and one two-hour laboratory session per week.

Prerequisites: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115 and MATH 17118. (S)

GEOL 27360 - Environmental Geology (4)

A study of geology focusing on the inter-relationship between man and his environment and resulting impacts to the Earth's systems. Topics investigated include natural processes as hazards, man's impacts on earth resources as well as contemporary environmental issues. Three lecture hours and one two-hour laboratory session each week. Prerequisite: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115. (F)

GEOL 27415 - Internship in Geology (1 to 6)

Outreach efforts by students and faculty often generate internship opportunities with environmental consulting firms, natural resource companies and government agencies. Internship courses require approval of the instructor, department chairperson, and employer offering the opportunity along with a written proposal from the student at the time of registration. The student enrolls in the appropriate number of credit hours for the work load of the internship. Typically, 160 work hours are worth 3 credit hours. Repeatable for additional experience. (F, S, SS)

GEOL 27420 - Petrology (4)

A study of igneous, sedimentary and metamorphic rocks including identification, mineral compositions, fabrics, textures, occurrences, genesis and classifications. Three lectures and one two-hour laboratory per week. Prerequisite: GEOL 27220. (S)

GEOL 27423 - Economic Geology (4)

This course investigates the origin and distribution of metallic and industrial minerals in Earth's crust. Major types of ore deposits are discussed, with a focus on exploration, exploitation, and remediation. Where possible, deposits are discussed in the context of local, regional, and global economic and political impacts. Three one-hour lectures and one two-hour laboratory per week. Prerequisite: GEOL 27220. (F, odd years)

GEOL 27424 - Geochemistry (3)

This course focuses on theoretical and applied geochemical approaches to understanding geologic systems. Emphasis is placed on acid-base and solubility equilibria, and stable and radiogenic isotope chemistry, primarily as related to geochronology and

the investigation of shallow crustal rocks.
Prerequisites: GEOL 27220. (F, even years)

GEOL 27440 - Stratigraphy (4)

A study of the principles and concepts used to study the stratigraphic sequence of rocks, including sedimentary environments, biostratigraphy and time-stratigraphic correlation. Three one-hour lectures and one two-hour lab. Prerequisite: GEOL 27212. (F, odd years)

GEOL 27450 - Structural Geology (4)

The study of the architecture of rock units in Earth's crust as a result of deformation associated with Earth's tectonic forces. Subject matter includes stress-strain relationships, folds, faults, rock fabrics, and plate tectonics. Laboratory techniques include strike and dip, scaled drawings and construction techniques, geologic maps and cross-sections, isopach maps, structural maps, and stereonet. Five hours of lecture and laboratory per week. Prerequisites: GEOL 27212 and GEOL 27420 and one mathematics course that incorporates trigonometry. (S)

GEOL 27455 - Geologic Field Methods (3)

Basic geological surveying techniques will be studied in the field. Notebook procedures and reporting will be stressed. Prerequisite: Geology Major or minor with 20 hours in geology. (SS)

GEOL 27498 - Senior Seminar (1)

A capstone course in Geology. A student will examine current geologic research results and techniques, investigate employment opportunities, and assess his/her fundamental understanding of geology. Prerequisites: senior standing as a Geology, Environmental Geology or Unified Science in Earth Science major, and a GPA of at least 2.0 in the major. (F)

GEOL 27500 - Special Offering (1 to 4)

One-time course offering in a timely area of geology or earth science. Repeatable for additional experience, new material and progression of study.

GEOL 27501 - Special Topics in Geology (1 to 4)

Will be offered according to student needs and interest. Each offering will be designed to incorporate the latest information pertaining to a timely topic in geology. Topics may include: rock and mineral origins and classifications, groundwater, energy, age of

dinosaurs, fossils and the history of life, volcanoes and earthquakes, and glacial geology. Prerequisite: One year of college-level science or permission of the instructor. Repeatable for new area of study.

GEOL 27510 - Geomorphology (3)

A study of landforms, focusing on the description, recognition, classification and formation processes. Topics investigated include the origin and nature of geomorphologic processes shaping different landforms, along with the influence of geologic controls, climate and other factors impacting these processes. Two lecture hours and one two-hour laboratory session per week. Prerequisite: GEOL 27110 and GEOL 27111 or GEOL 27114 and GEOL 27115. (S, even years)

GEOL 27515 - Environmental Regulations (2)

An introduction to federal and state regulations and major issues associated with the environment including air quality, ground water quality and the disposal of hazardous waste. Two lecture hours each week. Prerequisites: GEOL 27360 or BIOL 04420 or GEOG 32501 or permission of instructor. (S, odd years)

GEOL 27520 - Geology Field Trip (Advanced Level) (2)

An advanced version of the introductory field course, GEOL 27520 combines basic field investigation with a short project that focuses on a feature of interest from the field trip area. Potential projects include thin section petrography and optical mineralogy, written descriptions of features of interest, reflective essays, or other projects as approved by the course instructor. Prerequisite: GEOL 27212. Repeatable for new area of study. (F)

GEOL 27530 - Sedimentology (4)

A study of the production, transportation, deposition, and lithification of sediments. Includes comparison of classifications, techniques of using sediments in environmental interpretations and laboratory techniques in sediment study. Three one-hour lectures and one two-hour laboratory per week. Prerequisites: GEOL 27212. (F, odd years)

GEOL 27540 - Paleontology (4)

A general study of fossils, including classification of plants and animals, development and evolution of prehistoric

life, paleontological techniques, and use of fossils as time and ecological guides. Lab includes study and identification of the major fossil groups. Emphasis is on invertebrate animals, with a general review of microfossils, plants, and vertebrates. Three one-hour lectures and one two-hour laboratory. Prerequisites: GEOL 27212 or permission of instructor. (S)

GEOL 27555 - X-Ray Analysis (3)

Theory and application of x-ray diffraction. Consideration will be given to sample preparation, laboratory procedures and analysis of data. Prerequisite: GEOL 27220 or permission of instructor. (S, alt. years)

GEOL 27560 - Optical Mineralogy (3)

A study of the optical properties of non-opaque minerals through use of the petrographic (polarizing) microscope utilizing both oil immersion and thin section methods. Prerequisite: GEOL 27220. (F, even years)

GEOL 27590 - Seminar in the Earth Sciences (2)

Seminar and studies of advanced topics in selected fields in geology and other earth sciences. Two hours per week in lecture, seminar or lab appropriate to the topics. Prerequisites: GEOL 27110 and GEOL 27111.

GEOL 27599 - Special Investigations in the Earth Sciences (1 to 3)

Independent studies in the earth sciences including but not limited to research and library studies. Enroll only with consent of department chairperson. Requires written proposal at time of registration. Repeatable for additional experience, new material and progression of study. (F, S)

HIST - History

HIST 33155 - The United States to 1877 (3)

An introduction to the themes, events, people, issues, and debates in U.S. history from the earliest settlements through Reconstruction. (F, S, SS)

HIST 33156 - The United States Since 1877 (3)

An introduction to the themes, events, people, issues, and debates in U.S. history since Reconstruction. (F, S, SS)

HIST 33225 - Race and Ethnicity in America (3)

Focuses on the historical development of ethnicity and race in America. Emphasis will be placed on changing ethnic and racial consciousness and inclusion and exclusion in American society. (F, alt. years)

HIST 33301 - The Historian's Craft and Its Uses (3)

This course is designed to introduce the student to the tools of the craft; to research, to writing and to critical thinking, as well as to the product of the craft--the uses of history--both academic and public, with grant writing experience. (F, S)

HIST 33305 - The Ancient World (3)

A comparative study of the major events, trends, and personalities of the ancient world. Special emphasis is placed on those concepts which are foundational for modern culture and society: identity, gender, religion, conflict. (F, alt. years)

HIST 33306 - The Modern World (3)

A comparative study of the major events, trends, and personalities of the modern world. Special emphasis is placed on the causes and consequences of industrialization, urbanization, globalization, conflict, migration, and nationalism. (F, alt. years)

HIST 33310 - France Since Louis XIV (3)

An advanced survey of French history from the reign of Louis XIV to the European Community. (F, alt. years)

HIST 33320 - Public History (3)

Course is designed to introduce the undergraduate student to the field of public history. It will introduce the student to historic preservation, museum management, archives, and cultural resource management. (F, alt. years)

HIST 33350 - American Military History (3)

A course in the military history of the United States and the relationships of society, politics, diplomacy and economics to the military. (S)

HIST 33360 - Women and Gender in U.S. History (3)

Examines the significant cultural, economic, and political developments that shaped the lives of women in the United States from early history to the present and highlights the shifting conceptions and experiences of gender and sexuality. (F, alt. years)

HIST 33365 - American Religious History (3)

A survey of the diversity of religion in the U.S. focusing on the ways in which American life (politics, economics, foreign policy, social reform) has been influenced by religious movements and ideas in the past, and the challenges offered today by religious pluralism. (F, alt. years)

HIST 33370 - History of the Near and Middle East (3)

A survey of the history of the Near and Middle East since the time of Mohammed. (S, alt. years)

HIST 33375 - History of Latin America (3)

A brief survey of the history of Latin America designed for the general student, foreign language majors and business administration majors. (S, alt. years)

HIST 33380 - Humanitarian Crises of the Modern World (3)

This course examines both the history and evolution of genocide and the changes in humanitarian responses in the operating environment. This course will cover a broad range of subjects, including: the normative frameworks of humanitarian action - international humanitarian law, humanitarian principles, and codes of conduct; the impact of conflicts and the global war on terror on populations and humanitarian action; methodologies developed to improve the effectiveness and accountability of humanitarian action; the evolving structure of the international humanitarian system.

HIST 33386 - The Pacific Rim (3)

The course examines the history of East Asian development with emphasis on the nineteenth and twentieth centuries. Following an introduction to the origins of Chinese, Japanese, Korean and Southeast Asian cultures, the course assesses conflict along the Pacific Rim driven by historically rooted tensions and especially European influence. (S)

HIST 33388 - History of the American Economy (3)

This course is an historical study of the foundations and development of the American economy. It examines the periods of American History from an economic perspective and considers the impact of economic development on politics, society, and culture. (S, alt. years)

HIST 33389 - Early Modern Europe: The West Meets the World (3)

An in-depth examination of the society, culture, and international expansion of Europe from the mid-16th to the mid-18th century, a bloody and often unstable era, but one in which art and science flourished and the world economy and modern political systems were created. (S, alt. years)

HIST 33400 - Special Offering (1 to 3)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for new topics.

HIST 33444 - Local History Practicum (3)

A practical experience in collecting and presenting local and regional artifacts and stories. (F, alt. years)

HIST 33490 - Advanced Studies in History (3)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for new topics.

HIST 33491 - Historical Resources Internship (1 to 6)

On-site activity in libraries, museums, and historic sites and parks. Credit will vary according to the time spent and type of activity. Instructor's permission and prearrangement are required. Maximum credit to be earned is six semester hours. Repeatable for new experiences.

HIST 33499 - Independent Study in History (1 to 3)

Offered by special arrangement and petition approved by the student's advisor, the instructor involved and the department chairperson. Repeatable for new topic areas.

HIST 33503 - The Middle Ages (3)

A survey of the political and cultural history of Europe from the fall of the Roman Empire to the Renaissance. (S, alt. years)

HIST 33506 - The Renaissance and Reformation (3)

An advanced course which presents an in-depth study of the eras of the Renaissance and Reformation in western Europe. (S, alt. years)

HIST 33510 - History of Russia (3)

An advanced course dealing with the political, social, economic, and cultural history of Russia and the Soviet Union from the earliest times to present. (F, alt. years)

HIST 33517 - England: From Stonehenge to Versailles (3)

Course is designed as a survey of English history from the earliest inhabitants to the Treaty of Versailles. (F)

HIST 33521 - History of Germany Since 1648 (3)

An advanced course dealing with the history of modern Germany. (S, alt. years)

HIST 33522 - The American Colonies (3)

Provides an in-depth look at colonial development in North America, with an emphasis on the English colonies, how and why they were founded, and how they grew and developed through the revolutionary period. Additional themes may include racial, gender, and religious relationships and conflict, imperial rivalries, and the slow emergence of a more unified colonial identity. (S, alt. years)

HIST 33524 - The Early American Republic (3)

This course examines how the American Revolution transformed thirteen colonies into an independent nation and how the Articles of Confederation and the Constitution laid the foundation for the new country. Emphasis is placed on the culture and society of the period and the era's tumultuous political and economic events. (S, alt. years)

HIST 33525 - United States Since 1945 (3)

An advanced course which will look at the development of the contemporary United States through an examination of foreign affairs as well as selected social movements within the country. (S, alt. years)

HIST 33534 - The Civil War and Reconstruction (3)

An advanced course in American history which analyzes the conflicting theories and issues of the antebellum period, interprets the coming of the Civil War, the conduct of government, military operations and foreign relations during the war, and problems of the Reconstruction Period. (F)

HIST 33542 - American Ideas (3)

A study of political, religious, social, and other aspects of American life. Among the issues to be emphasized are: Puritanism, the Enlightenment, the Federalist/Anti-Federalist controversy, 19th century democratic ideas, Social Darwinism, the progressive era, Humanism, New Deal thought, the New Conservatism of the Fifties, and the New Left movement. (S, alt. years)

HIST 33545 - History of Terrorism (3)

A historical overview of the practice of "terrorism" with its known applications in the ancient world through the present. Special attention will be placed on terrorism since the French Revolution, including the anarchist movement of the nineteenth century, and Holocaust, and the events of the late twentieth and early twenty-first centuries. (S, alt. years)

HIST 33556 - The Gilded Age and Progressive Era (3)

An advanced course in the era of the United States between the Civil War and World War I, leading to new understandings of modern America. This course will investigate key issues of this era including industrialization, populism, progressivism, migration, race, gender, and identity. (F, alt. years)

HIST 33562 - The History of Missouri (3)

A brief survey of the Spanish and French rule, followed by a study of the history and development of Missouri from the acquisition of the territory by the United States to the present day. Special emphasis is on its historical significance, important figures, government, constitution, current problems, and local history. (F, alt. years)

HIST 33565 - The History of American Foreign Relations (3)

An introduction to the history of U.S. and foreign policy. This course will concentrate on the key episodes in U.S. foreign policy with an emphasis on the assumptions that formed the context for power relationships in the European, Asian and American worlds from the time of American independence to the present. (S, alt. years)

HIST 33582 - The American West (3)

A study of America's territorial expansion from the colonial period to the close of the 19th century, including the impact on the nation's people, institutions, policies and ideas. Special emphasis will be devoted to the conflict between settlers and native people. (S, alt. years)

HIST 33589 - Europe in the Age of Nationalism (3)

An examination of the impact of nationalism upon Europe since the French Revolution. (S, alt. years)

HIST 33591 - Research Seminar in History (3)

A capstone course for majors in History and Social Science Education in which students demonstrate mastery of historical theory and methods, including source interpretation and historical argumentation. The historical content of this course will vary when offered. Repeatable for new experiences up to six credit hours. Prerequisite: HIST 33301 or permission of the instructor. (F, S)

HPER - Health and Physical Education**HPER 22110 - Lifetime Wellness (2)**

A course designed to develop an understanding of the principles necessary for promoting lifetime wellness, clarifying values, living effectively and improving the quality of life, through a study of critical issues which affect the individual and society, including: self concept and relationships, physical fitness, substance abuse and dependency behaviors, nutrition, prevention and control of disease, sexuality issues and consumer health. (Must co-register in HPER 22111 Lifetime Wellness Laboratory). (F, S, SS)

HPER 22111 - Lifetime Wellness Laboratory (1)

A laboratory designed to conduct a wellness assessment and to provide students with practical strategies and skills for developing a personal program of fitness and lifetime sports activities. (F, S, SS)

HPER 22200 - Special Offering (1 to 4)**HPER 22276 - Lifeguard Training (2)**

Designed to provide the only certification to qualify a student for lifeguarding at pool and non-surf facilities. Successful completion of this course provides the student the ARC Lifeguard Training Certification. To complete the certification the student must submit evidence of current certification in adult CPR and standard first aid. Repeatable for new experience or further mastery. (S)

HPER 22400 - Special Offering (1 to 4)**HPER 22447 - Senior Seminar in Health Science and Wellness (1)**

A capstone course designed to acquaint the student with current issues and trends in Applied Health Science and to apply principles of philosophy to AHS. Prerequisites: HPER 22254 or BIOL 04236, and HPER 22332, HPER 22336. (F, S)

HPER 22459 - Independent Study in Health Education (1 to 2)

Individual study under faculty supervision of a selected area of interest. May be repeated for a total of three hours for new experience. Prerequisite: Permission of advisor and instructor. (F, S, SS)

HPER 22470 - Internship in Applied Health Science (6)

A gradual induction to the professional setting is provided through a progression of experiences. The experience should include a minimum of 480-560 hours of hands-on, supervised practical experience over a 12-16 week period. The experience will be directed and supervised by a health sciences professional and a University internship supervisor. Setting for internships may include cardiac rehabilitation facilities, private and not-for-profit wellness and fitness centers, municipal health agencies, senior centers, long term care facilities, athlete training centers, and other health related organizations. (F, S, SS)

HPER 22480 - Health Education Methods in the Secondary School (3)

Organizing health instruction, development and appraisal of materials, use of instructional and assessment strategies for the 9-12 learner. Prerequisites: Admission to Teacher Education. (F, SS)

HPER 22500 - Special Offering (1 to 4)**HPER 22515 - Issues in Sport (3)**

An analysis of contemporary trends and issues in sport. Prerequisites: MGMT 54345 or graduate student status or permission of instructor.

HPER 22534 - Evidence Based Practice in Health Science and Wellness (2)

Students will take part in practical exercises designed to develop competency in the use of evidence based practice. EBP processes for identifying and critiquing existing evidence will be explored. Integration of existing evidence with clinical judgment, patient preferences, inter-professional perspectives and other resources form the basis for the clinical decision-making process

will also be covered. Prerequisites: HPER 22254 or BIOL 04236, and HPER 22332, HPER 22336. (F, SS)

HPER 22541 - Human Pathophysiology (3)

This course explores the physiological processes and mechanisms that characterize the pathology of diseases associated with lifestyle choices and behaviors. Prerequisites: HPER 22254 or BIOL 04236. (F)

HPER 22550 - Community Health (3)

Historical, physical, biological, and socio-cultural factors that influence the magnitude and character of health problems, goals, and solutions. (F, S)

HPER 22552 - Health Promotion (3)

The study of the organization and implementation of a comprehensive health promotion program. Practical applied experiences are included. (F)

HPER 22554 - Human Sexuality (3)

A study of the historical, biological, psychological, and socio-cultural aspects of sexuality in relation to modern life. (F)

HPER 22555 - Intervention and Strategies for Health Behavior Change (3)

An applied approach of behavior change. Models to investigate health behavior modification. (S, SS)

HPER 22556 - Health in the Later Years (3)

This course considers aging from three perspectives: physical aspect of an aging body, health care of the elderly, and current health issues for aging Americans. The course begins by investigating theories of aging, changes in the body with age, mental health and wellness, chronic health conditions, and prevention and health promotion. It concludes with lessons addressing the upcoming Age Wave and what it means for health care services and providers.(F)

Activity Courses

Only 4 activity credits may count toward the minimum hours required for graduation.

HPER 22101 - Restricted Activity (1)

Repeatable for mastery. (F, S)

HPER 22106 - Weight Training and Conditioning (1)

(F, S)

HPER 22107 - Racquetball (1)

(F, S, SS)

HPER 22112 - Jogging (1)

(F, S)

HPER 22113 - Individualized Fitness Program (1)

Repeatable for new content and/or mastery. (F, S, SS)

HPER 22116 - Casting and Angling (1)

(F)

HPER 22121 - Volleyball (1)

(F, S)

HPER 22131 - Beginning Tennis (1)

(F, S, SS)

HPER 22134 - Badminton (1)

(F, S)

HPER 22139 - Golf (1)

(F, S, SS)

HPER 22160 - Group Exercise (1)

(F, S)

HPER 22170 - Beginning Swimming (1)

(F)

Varsity Athletics

The following courses may each be repeated for 4 total credit hours per course for further mastery.

HPER 22180 - Varsity Cross Country (1)

(F)

HPER 22181 - Varsity Tennis (1)

(S)

HPER 22182 - Varsity Baseball (1)

(S)

HPER 22183 - Varsity Track and Field (1)

(S)

HPER 22184 - Varsity Basketball (1)

(F)

HPER 22185 - Varsity Football (1)

(F)

HPER 22186 - Varsity Volleyball (1)
(F)

HPER 22190 - Varsity Softball (1)
(S)

HPER 22197 - Varsity Soccer (1)

HPER 22198 - Varsity Golf (1)

Physical Education

HPER 22114 - Wellness (3)

Wellness is a course designed to develop an understanding of the principles necessary for promoting and improving the quality of life, through a study of critical issues which affect the individual and society. An overview of the following topics that encompass social, physical, intellectual, emotional and spiritual health is covered: health behaviors, physical fitness, substance abuse and dependency behaviors, nutrition and weight management, prevention and control of disease, sexuality issues, and consumer health. Through reading, writing and discussion an understanding develops of how individual "fitness" in the social, physical, intellectual, emotional and spiritual dimensions impacts overall health. Additionally, the assessment of cardiovascular fitness, muscular strength and endurance, flexibility, body composition, and exercise prescription in labs within this course are designed to conduct a wellness assessment and to provide students with practical strategies and skills for developing a personal program of fitness. (F, S)

HPER 22207 - Aerobic and Strength Conditioning (3)

Development of advanced skills and methodology in working with cardiovascular aerobic conditioning. (S)

HPER 22208 - Techniques of Folk, Square, and Recreational Dance (3)

Development of skills and methodology for folk, square and recreational dance. (F)

HPER 22210 - Special Topics in Physical Education Activity (1 to 3)

Designed for undergraduate special topic classes, new initiatives and developing courses in physical education that are activity based. Repeatable for new experience or further mastery.

HPER 22220 - Lifetime Activities and Dance (3)

Development of skills and methodology in working with cardiorespiratory and muscular strength conditioning. Aerobic exercise training, muscular strength training, muscular flexibility training, and designing and leading exercise training is experientially covered. The concepts of training intensity, frequency, volume, and mode are introduced through practical and research experience.

HPER 22226 - Advanced Weight Training (1)

Advanced development of skills. (F, S)

HPER 22233 - First Aid, CPR, and Care of Sports Injuries (3)

Theory and practice of first aid and CPR. Development of skills in the prevention and care of injuries associated with sports and activity. (F, S)

HPER 22238 - Health and Physical Education Methods in the Elementary School (3)

Methods and activities in health and physical education in the elementary school. (F, S, SS)

HPER 22239 - Foundations of Physical Education (3)

An introductory professional course which covers the scope, purpose, history, growth and development, and career assessment of physical education. (F, S)

HPER 22254 - Anatomy and Physiology (3)

The structure and function of the skeletal, muscular and circulatory systems. (F, S)

HPER 22260 - Observation and Practicum I in Physical Education (2)

Observation and participation in elementary, middle and secondary schools with both non-instructional and limited instructional responsibilities. Twenty-four hours of field experience required. (F, S)

HPER 22281 - Officiating Soccer (1)
(S)

HPER 22282 - Officiating Baseball and Softball (1)
(S)

HPER 22283 - Officiating Track and Field (1)

(S)

HPER 22284 - Officiating Basketball (1)

(S)

HPER 22285 - Officiating Football (1)

(F)

HPER 22286 - Officiating Volleyball (1)

(F)

HPER 22287 - Officiating Wrestling (1)

(F)

HPER 22332 - Physiology of Exercise (3)

A study of the immediate and long-range effects of physical activity on the muscular, respiratory, circulatory, nervous and metabolic systems. Laboratories are included. Prerequisite: HPER 22254. Physical Education majors must complete HPER 22254 with a minimum grade of C to meet advanced standing requirements.(F, S)

HPER 22334 - Administration of Athletics and Coaching Practicum (2)

Principles and procedures for administering athletic programs in the schools. A 30-hour required practicum experience in an athletic setting. (F, S)

HPER 22335 - Sport and Exercise Nutrition Topics (3)

A course designed to provide emphasis on the bioenergetics and nutrition for human performance and health. The role that diet and nutrition play and how they impact health diseases will be addressed. Ergogenic aids will also be addressed.

HPER 22336 - Basic Biomechanics (3)

The study of the principles of human movement: structural and mechanical. Prerequisite: HPER 22254. (F, SS)

HPER 22360 - Mid-Level Field Experience in Physical Education (2)

Intermediate level practicum for K-12 schools requiring 24 hours of observation and field experience. Prerequisites: HPER 22260 or EDUC 61260 or EDCI 62211.

HPER 22361 - Creative Rhythms and Activities 5-9 (2)

The study and understanding of movement concepts as they relate to space, time and energy through dance and gymnastics for the 5-9 learner. (S)

HPER 22362 - Creative Movement and Rhythms (3)

The study and understanding of movement concepts as they relate to space, time and energy through dance and gymnastics for the K-4 learner. (F, S)

HPER 22382 - Care and Prevention of Athletic Injuries (3)

Covers primary cause of injuries, analysis of preventive measures and care of injuries in relation to type of tissue involved. (F, S)

HPER 22410 - Adapted Physical Education (3)

Survey of human physical disabilities combined with adaptive and rehabilitative measures to promote better living for the individual. (F, S, SS)

HPER 22430 - Lifetime Team Activities (3)

An introduction to basic skills and teaching techniques of lifetime team activities. (F, S)

HPER 22431 - Lifetime Individual Activities (3)

An introduction to basic skills and teaching techniques in lifetime individual activities. (F, S)

HPER 22433 - Senior Seminar in Physical Education (2)

A capstone course designed to acquaint the student with current issues and trends in Health and Human Services (HHS) and to apply principles of philosophy to HHS. Prerequisites: Admission to Teacher Education. (F, S)

HPER 22435 - Lifetime Team and Individual Sports Instruction (3)

An analysis of basic skills and teaching techniques in lifetime individual and team sports.

HPER 22437 - Practicum: Physical Education in the Elementary School (1 to 2)

Practical experience in the elementary school physical education program. Prerequisites: Admission to Teacher Education. (F, S)

HPER 22439 - Independent Study in Physical Education (1 to 2)

Individual study, under faculty supervision, of a selected area of interest. May be repeated for a total of three hours for new experience or further mastery. Prerequisite: Permission of advisor and instructor. (F, S, SS)

HPER 22445 - Literacy and Applications in Physical Education (3)

A review and analysis of the application of literacy in physical education, physical activity, and human movement settings.

HPER 22481 - Theory and Fundamentals of Coaching Soccer (2)

(F)

HPER 22482 - Theory and Fundamentals of Coaching Baseball (2)

(S)

HPER 22483 - Theory and Fundamentals of Coaching Track and Field (2)

(S)

HPER 22484 - Theory and Fundamentals of Coaching Basketball (2)

(F)

HPER 22485 - Theory and Fundamentals of Coaching Football (2)

(F)

HPER 22486 - Theory and Fundamentals of Coaching Volleyball (2)

(S)

HPER 22510 - Special Topics (1 to 3)

Designed for special workshops. Repeatable for new experience and further mastery. (F, S, SS)

HPER 22512 - Socio-Psychological Aspects of Human Performance (3)

Analysis of sociological and psychological aspects which influence human performance. Prerequisites: Upper-division standing or permission of instructor. (F, S)

HPER 22520 - Classroom Management and Motivation in Physical Education (3)

This course presents appropriate use of current techniques used to motivate and manage student behavior. Emphasis is placed on the physical education setting. Suggested for Outreach graduate program; see advisor before enrolling. (SS)

HPER 22523 - Motor Development (3)

This course is designed to focus on normal and abnormal motor development of school-age individuals. Emphasis is placed on the study of the interaction between environmental and biological factors which

affect changes in motor performance, motor development assessment techniques, and designing and implementing an individualized program for a school-age student. (F, S, SS)

HPER 22529 - Theory and Fundamentals of Strength and Conditioning/Personal Training (3)

Provides the basic skills, program design and teaching techniques for strength training and personal conditioning. (S)

HPER 22532 - Exercise Testing, Prescription, and Analysis of Cardiac Function (3)

Designed to provide special emphasis to testing individuals with several exercise protocols and modes. Emphasis will be placed upon cardiovascular functions at rest, during exercise and recovery. The format is practical and laboratory based in nature. Prerequisite: HPER 22254 and HPER 22332 with a grade of B or better. (S)

HPER 22536 - Mechanical Analysis of Sports Skills (3)

Designed to improve the student's ability to teach physical education or coach by analyzing a variety of activities in terms of the fundamental principles of mechanics. Prerequisites: HPER 22254, HPER 22336. (SS)

HPER 22537 - Assessment in Physical Education (3)

A study of the evaluation procedures in physical education, the administration of such procedures, and the interpretation of the results by fundamental statistical methods. (F, S)

HPER 22580 - Methods in Secondary Physical Education (3)

A survey of teaching styles and pedagogy. Special emphasis is given to daily teaching methodology with practical experiences. The relationship of methods of teaching to curriculum is also covered. (Must be taken prior to directed teaching.) Prerequisites: HPER 22239, HPER 22332, HPER 22430 and HPER 22431 or equivalent, and Admittance to Teacher Education. (F, S)

Safety Education**HPER 22272 - Introduction to Safety Education-Driver Education I (3)**

Introductory course examining the principles and fundamentals of safety education. Concern for safety as a social problem, considers major accident areas, accident causes, liability and analysis of possible solutions to the accident problem. Develops concepts to prepare the driver education student to assume responsibility for accident prevention in the home, school, community and on the highway.

HPER 22479 - Independent Study in Safety Education (1 to 2)

Individual study, under faculty supervision, of a selected area of interest. May be repeated for a total of three hours. Prerequisite: Permission of instructor. (F, S, SS)

HUM - Humanities

HUM 26102 - Western Civilization I: The Ancient World to 1500 (3)

An introduction to the development of Western Culture from the Ancient World through the Renaissance. (F, S, SS)

HUM 26103 - Western Civilization II: 1500 to the Present (3)

An introduction to the development of Western Culture from 1500 to the present. (F, S, SS)

HUM 26104 - The Eastern World (3)

An introductory survey covering the literary, artistic, philosophical and religious traditions of selected Eastern cultures with special emphasis on China and Japan. (S)

HUM 26105 - Information Technology and Culture (3)

How contemporary technology shapes, positively and negatively, our interactions with the world, and the ability to understand and use contemporary information technology in that world. (F)

HUM 26162 - Comparative Religions (3)

An introduction to and a comparative analysis of selected religious traditions. (S)

HUM 26380 - Special Topics in Humanities (3)

A survey course in the humanities with topics to be selected by the instructor. May be taken more than once with approval of advisor for new topics.

HUM 26401 - Senior Seminar (1)

An intensive study of an issue in the Liberal Arts and Sciences of the student's choice, in consultation with a faculty advisor, concluding with a research paper or project. Prerequisite: The student must have completed at least 21 hours toward the major. (F, S)

HUM 26409 - Independent Study in the Humanities (1 to 3)

Investigation of special problems in any area of study offered (humanities, classics or religion). Consent of instructor necessary. Repeatable for new topics.

HUM 26500 - Special Offering (1 to 3)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for new topics.

INCO - Inter-College

INCO 77101 - University Seminar (1)

University Seminar is designed to help students transition to college life and achieve success. Topics of exploration will include the privileges, rights and responsibilities associated with a university education, skills necessary for success, assuming responsibility for one's own university experience, and available resources.

INCO 77150 - Academic Success Coaching (1)

Academic Success Coaching is comprised of weekly, intrusive, individualized meetings with Academic Success Coaching personnel. Level of support will be determined by program metrics including GPA, classification, student status, institutional assessment, and current course schedule. The course is required for students participating in the Assist Program, enrolled in INCO 77151 Strategies for Academic Success, or by recommendation of the academic advisor. Course can be repeated as needed, but only counts once toward the 124 hours required for the degree. (F, S, SS)

INCO 77151 - Strategies for Academic Success (1)

An academic skills course for students designed to improve their academic standing. Students will utilize various skills and strategies covered in this course to foster success in the context of their current trimester coursework. Students must also co-enroll in INCO 77150 Academic Success

Coaching. Course can be repeated as needed, but only counts once toward the 124 hours required for the degree. (F, S, SS)

INCO 77200 - Profession-Based Essential Skills (1)

A profession-based skills development course that prepares students for a profession-based work experience, internship or practicum. Topics to be covered include National Association of Colleges and Employer (NACE) skills/qualities such as communication skills (verbal and written), teamwork, leadership, problem solving, and initiative. Students will have the opportunity to gain profession-based essential skills through exercises, case studies, and seminar discussion.

INCO 77217 - Profession-Based Essentials (1)

A profession-based skills development course that prepares students for a profession-based work experience, internship or practicum. Topics to be covered include National Association of Colleges and Employee (NACE) skills/qualities such as communication skills (verbal and written), teamwork, leadership, problem solving and initiative. Students will have the opportunity to gain profession-based essential skills through exercises, case studies, and seminar discussion.

INCO 77297 - Profession-Based Work Experience (1 to 3)

A profession-based work experience that enables students to work within a business context, clarify their career goals and develop their professional skills under the supervision, guidance and mentoring of an industry professional. Credit will vary depending upon time spent. One hour of credit requires 50 hours of work time. Prerequisite: approval of the instructor. May be repeated for up to a total of 6 hours. (F, S, SS)

INST - International Study

INST 80299 - International Study-Study Abroad (Country) (3 to 15)

Students studying abroad in a Northwest program enroll in this course for the period of their stay. This maintains the student's enrollment during the period of study abroad program and upon return facilitates the translation of coursework taken abroad into Northwest credit.

LANG - Languages

LANG 14100 - Special Offering (1 to 3)

LANG 14200 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

LANG 14300 - Special Offering (1 to 3)

LANG 14400 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

LANG 14401 - Special Topics (1 to 3)

Provides concentrated study in special areas within languages. Topics vary trimester to trimester. Prerequisites as announced. Repeatable with topics changing. (SS)

LANG 14460 - Advanced Studies in Modern Languages (3)

Study of special topics chosen by the instructor. Subject matter may vary. Students may repeat the course once for credit with different topics. Intended for students who have completed the major core in a foreign language. Prerequisite: Advanced standing

LANG 14470 - Internship in Languages (1 to 3)

Allows students to gain practical experience by participating in on-site work and various types of predominantly non-English speaking organizations. Prerequisites: LANG 14243 and LANG 14244 or equivalent and permission of instructor. (F, S, SS)

LANG 14480 - Methods of Teaching a Modern Language (3)

Study and practice in techniques for effective teaching of foreign languages. Includes study of theories, methodologies, assessments and current trends in teaching foreign languages in schools. Prerequisite: Admittance to Teacher Education. (F)

LANG 14485 - Senior Seminar for Modern Language Majors (1)

Intended for seniors who have finished the major or who are taking the last course of their major. Each student will prepare a paper or portfolio in an area of the language field related to his or her future employment

or lifetime interests, which will be presented to other majors for discussion and exchange of ideas. Prerequisite: Must meet the current departmental cut score(s) on the current standardized general education test(s) (contact the department office for specific information), have the permission of the department chairperson and have successfully completed at least one 400-level course. (F, S)

LANG 14500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

Chinese

LANG 14121 - Chinese: Communication and Culture I (3)

Initiates awareness of Chinese culture along with the ability to understand simple conversation in Chinese and to communicate basic needs and activities. Intended for students with no previous study of Chinese. (F)

LANG 14122 - Chinese: Communication and Culture II (3)

Develops comprehension and communication skills, including the ability to discuss opinions and past events, and introduces students to Chinese life and culture. Prerequisite: LANG 14121 or equivalent. (S)

LANG 14221 - Intermediate Chinese for Communication and Culture I (3)

Broadens and strengthens the student's knowledge of Chinese through reading, composition and conversation, and also expands knowledge of the structure of the Chinese language. Prerequisite: LANG 14122 or equivalent. (F)

LANG 14222 - Intermediate Chinese for Communication and Culture II (3)

Broadens and strengthens the student's knowledge of Chinese through reading, composition and conversation, and also expands knowledge of the structure of the Chinese language. Prerequisite: LANG 14221 or equivalent (S)

French

LANG 14131 - French: Communication and Culture I (3)

Initiates awareness of Francophone cultures along with the ability to understand simple conversation in French and to communicate basic needs and describe activities. Intended for students with no previous study of French. (F)

LANG 14132 - French: Communication and Culture II (3)

Develops comprehension and communication skills, including the ability to discuss opinions and past events, and introduces students to French life and culture. Prerequisite: LANG 14131 or equivalent in high school French. (S)

LANG 14232 - Intermediate French for Communication and Culture I (3)

Intermediate level course focusing on the language and culture of France and the Francophone world. Further development of contemporary conversational vocabulary in French along with activities designed for practical applications. Readings broaden the student's vocabulary and syntax usage. Prerequisite: LANG 14132 or equivalent. (F)

LANG 14233 - Intermediate French for Communication and Culture II (3)

Intermediate level course focusing on the language and culture of France and the Francophone world. Further development of contemporary conversational vocabulary in French, along with activities designed for practical applications. Readings broaden the student's vocabulary and syntax usage. Prerequisite: LANG 14232 or equivalent. (S)

LANG 14439 - Independent Study in French (1 to 2)

Offered by special arrangement and petition approved by the modern language faculty. May be repeated for a maximum of six semester hours with topics changing. (F, S)

Russian

LANG 14161 - Russian: Communication and Culture I (3)

Initiates awareness of Russian cultures along with the ability to understand simple conversation in Russian and to communicate basic needs and activities. Intended for students with no previous study of Russian. (F, alt years)

LANG 14162 - Russian: Communication and Culture II (3)

Develops comprehension and communication skills, including the ability to discuss opinions and past events, and introduces students to Russian life and culture. Prerequisite: LANG 14161 or equivalent. (S, alt years)

LANG 14261 - Intermediate Russian for Communication and Culture I (3)

Broadens and strengthens the student's knowledge of Russian through reading, composition and conversation, and also expands knowledge of the structure of the Russian language. Prerequisite: LANG 14162 or equivalent. (F, alt years)

Sign Language**LANG 14151 - Introduction to American Sign Language and Deaf Culture (3)**

This course is an introduction to the history of Deaf Culture(s), linguistic structure of sign language(s) emphasizing American Sign Language (ASL) in the United States and globally. The cultural and historical perspectives, viewpoints, and value systems will be addressed for this linguistic cultural minority. American Sign Language defines the Deaf culture and basic vocabulary, fingerspelling, non-manual signs, grammar and structure will develop the awareness and cultural competence that can be applied to a variety of settings including: professional, educational, international and health care settings. This course fulfills the Global Experience Requirement in The Northwest Core. (F, S, SS)

LANG 14251 - American Sign Language I (3)

This course provides a deeper interactive-immersion approach to learning American Sign Language and Deaf Culture by continuing and reinforcing the discourse expansion practices of Introduction to ASL and Deaf Culture (LANG 14151). An emphasis on verb and temporal agreements through contextual learning and role-playing activities improve communicative skills. Active participation in the Deaf Community, cultural events, presentations, and projects will deepen the experiential learning and language acquisition of the developing novice proficiency level student. Skills will be reinforced to enhance proficiency through reflective practices that can be applied in a variety of settings, and understanding the two historical perspectives of Deafness and

applying that information to new settings. This class is taught primarily in ASL with no voice. Prerequisites: LANG 14151 with a minimum grade of C or permission of instructor. (F, S, SS)

LANG 14252 - American Sign Language II (3)

This course integrates the active participation in Deaf communities with a classroom total-immersion approach expanding complexity and grammatical functions to discuss a variety of topics and issues in a natural environment utilizing English interpretive and translation strategies to develop emerging expressive and receptive skills and improve the visual spatial mode of expression. Deaf organizations, media, and storytelling become the emphasis of the contemporary research analysis and reflective practices creating a social-cultural non-structured environment where conversational American Sign Language is valued and appreciated. Improved conversational competence deepens as students demonstrate the meaning and function of ASL through culturally appropriate behaviors binding them to the importance of Deaf culture as a minority in American society. Prerequisites: LANG 14251 with a minimum grade of C or permission of instructor. (F, S)

LANG 14256 - American Sign Language Practicum (1)

This course is an introduction to Cultural Responsive Teaching, Universal Design, and Teaching and Language Proficiency standards and integrates the community engagement and/or parent involvement and communication needs in dual language programs where English and another language is taught or translated. Students will learn how to analyze, integrate, and reflect on positive behavior reports in a structural field experience working with the Sign With Me Dual Language Program. World-class instructional design and assessment, teacher education, and professional education modules will help students understand the purpose of positive professional communities. It will also help students reflect on their experiences teaching or creating sign language materials in a program focusing on culturally diverse and linguistic minorities and awareness of cultural differences with emphases in education, medical, social-emotional play, and age-appropriate activities that increase

language development and increasing signing skills. Prerequisites: LANG 14151 and LANG 14251 with minimum grades of C or permission from instructor.

LANG 14351 - American Sign Language III (3)

This course focuses on a functional-notional approach to second language and sociolinguistics learning. An emphasis on interpersonal communication and achievement of intermediate communicative proficiency is enhanced by introducing the functions or communicative purposes of complex structures and putting them into practice, and by integrating interpreting and transliterating skills in real-world situations including participation in Deaf communities. Interpersonal relationships in and beyond the classroom model appropriate language and cultural functions reflecting on complex linguistic and cultural issues and behaviors integrating dynamic conversations that are embedded in everyday activities that contextualize and give meaning to those functions, deepening an appreciation of diverse and culturally linguistic minorities and develop 21st century globalization skills by applying content and skills through cross-curricular situations and activities. This course is taught primarily in ASL as a total immersion course with no voice. Prerequisites: LANG 14252 with a minimum grade of C or permission of instructor. (S)

LANG 14451 - American Sign Language IV (3)

This course design provides a process and task-oriented approach to identify, select, and analyze the tools and credentials required to work with diverse and culturally linguistic minorities in a variety of settings and specialized fields including Global Deafness and Deaf Nation. Application or prior knowledge and skills to ethical and political issues in the global workforce provides a deeper appreciation to students in their specialized fields of study. Assessment procedures are introduced, evaluated, and simulated which include policies and procedures for obtaining credentials that evaluate cultural and linguistic competence. Research analysis and reflective practices include making connections/comparisons and integrating social, ethical, intellectual, and personal growth throughout the Deaf Studies program, including assessments/evaluations documenting a language plan and evidence of the highest level of English and American

Sign Language Proficiency in a professional portfolio. This course is taught primarily in American Sign Language. Prerequisites: LANG 14351 with a minimum grade of C.

LANG 14459 - Independent Study in American Sign Language (1 to 2)

Offered by special arrangement and petition approved by the modern language faculty. May be repeated for a maximum of six semester hours with topics changing. (F, S)

Spanish

LANG 14141 - Spanish: Communication and Culture I (3)

Initiates awareness of Hispanic cultures along with the ability to understand simple conversation in Spanish and to communicate basic needs and activities. Intended for students with no previous study of Spanish. Does not count towards major or minor in Spanish. (F, S, SS)

LANG 14142 - Spanish: Communication and Culture II (3)

Develops comprehension and communication skills, including the ability to discuss opinions and past events, and introduces students to various countries in Spanish America. Does not count towards major or minor in Spanish. Prerequisite: LANG 14141 or equivalent in high school Spanish. (F, S)

LANG 14242 - Intermediate Spanish for Communication and Culture I (3)

Broadens and strengthens the student's knowledge of Spanish through reading, composition and conversation, and also expands knowledge of the structure of the Spanish language. Prerequisite: LANG 14142 or equivalent. (F, S)

LANG 14243 - Intermediate Spanish for Communication and Culture II (3)

Broadens and strengthens the student's knowledge of Spanish through reading, composition and conversation, and also expands knowledge of the structure of the Spanish language. Prerequisite: LANG 14242 or equivalent. (F, S)

LANG 14344 - Advanced Conversation in Spanish (3)

This course provides an intensive advanced practice in speaking Spanish in order to increase students' fluency and self-

confidence. Students will learn the appropriate uses of Spanish street idioms, as well as a wide range of topics of conversation, from the superficial discussion to the most profound philosophical or scientific themes. The topics are actual issues that have an impact on our daily lives. Prerequisite: LANG 14243 and LANG 14244 or equivalent. (S)

LANG 14345 - Advanced Spanish Composition (3)

Practice in correct idiomatic and effective oral and written communication including descriptive, narrative, informative and argumentative essays. Prerequisite: LANG 14342 or equivalent. (S)

LANG 14347 - Study Abroad for Spanish or French (1 to 4)

Designed for coursework taught in Spanish or French, taken outside of the U.S. Prerequisite: LANG 14243 AND LANG 14244 (Spanish) or equivalent; LANG 14233 (French) or equivalent. Repeatable for new experience. (SS)

LANG 14348 - Spanish History and Culture (3)

The history and culture of Spain as a background to national identity. Course is taught in Spanish. Prerequisite: LANG 14243. (F)

LANG 14403 - Special Topics in Latin American Cinema (3)

This course may focus on any period or aspect of the film culture in the Spanish-speaking world. The class may focus in a particular director ("The world of Pedro Almodóvar," "Luis Buñuel: Redefining National Cinema"); a group of directors ("New Latin American directors," "La movida"); films from a specific period ("Spanish Film after Franco," "Films during the Franco Regime," "Films in the Spanish-speaking world in the 21st Century"); films from a specific genre or place ("Latin American Cinema: 6 countries in 12 movies," "Horror movies in Spanish,"); movies with a specific theme ("Latin American movies and politics," "The LGBT Community and Films," "Literary works adapted to the screen," "Films and Fútbol"). Students may repeat the course with a change in topic.

LANG 14446 - Practicum in Spanish (1 to 3)

An experience which will offer students the opportunity to gain practical experience in the field by working in a setting closely

related to their chosen career field, preferably in a foreign country. May be used for elementary Spanish teaching practicum as a supervised teaching experience. Repeatable for further mastery. (F, S)

LANG 14447 - Latin American Civilization (3)

Practice in correct idiomatic and effective oral and written communication including descriptive, narrative, informative and argumentative essays. Prerequisite: LANG 14243 or equivalent. (F, alt. years)

LANG 14448 - Survey of Spanish Language Literature (3)

This course offers a general overview of major literary works and movements in both Spain and Latin America from the outset of the Colonial period to the present. It includes a discussion of the important historical, cultural, social and ideological issues that underlie each movement. The genres to be studied include poetry, short story, drama and essay. Prerequisite: LANG 14243 or equivalent. (F, alt. years)

LANG 14449 - Independent Study in Spanish (1 to 2)

Offered by special arrangement and petition approved by the foreign language faculty. May be repeated for a maximum of six semester hours with topics changing. (F, S)

LANG 14493 - Latin American Literature (3)

The survey in Latin American Literature is designed to give students a wide scope of writings that have shaped Latin America's social, cultural, and literary history. This course begins with texts by the indigenous cultures of pre-colonial times, and moves through the Colonial Literature, the literature from the independence movements, modernismo, vanguardias, el Boom, to finish with contemporary literature. The class touches on important issues like the power of language, relationship between social movements and literature, the colonial and post-colonial experience, globalization, nationality, Latin American identity, race, etc.

LANG 14541 - Independent Study in Spanish (1 to 4)

Provides individualized, in-depth study in the area of Spanish. Study will be conducted in Spanish and will be designed to meet the needs of the student(s). May be repeated. Credit and prerequisites as announced.

Study Abroad

LANG 14191 - Modern Language Communication and Culture I (1 to 4)

Designed for credit in the study of a language other than English, French or Spanish. Initiates awareness of non-English speaking cultures along with the ability to understand simple conversation and to communicate basic needs and describe activities. Intended for students with no previous study of the language. Does not count toward a modern language major or minor. Course may be repeated for further mastery.

LANG 14192 - Modern Language Communication and Culture II (1 to 4)

Designed for credit in the study of a language other than English, French or Spanish. Develops comprehension and communication skills, including the ability to discuss opinions and past events and introduces students to non-English speaking life and culture. Does not count toward a modern language major or minor. Course may be repeated for further mastery.

LANG 14290 - Intermediate Communication and Cultures in Modern Language I (1 to 4)

Designed for credit in the study of a language other than English, French or Spanish. Intermediate level, credited experiences from other higher education institutions may be equated to this course number. Does not count toward a modern language major or minor. Course may be repeated for further mastery.

LANG 14390 - Advanced Communication and Cultures in Modern Languages (1 to 4)

Designed primarily for credit in the study of a language other than English, French, or Spanish. Advanced level, credited experiences from other higher education institutions may be equated to this course number. Credit under this course number may be used as advanced electives in a modern language major or minor. Course may be repeated for further mastery.

LANG 14490 - Advanced Studies in Culture and History in Modern Languages (1 to 4)

Designed primarily for credit in the study of a language other than English, French or Spanish. Advanced level, credited experiences focusing on culture and/or history from other higher education

institutions may be equated to this course number. Credit under this course number may be used as advanced electives in a modern language major or minor. Course may be repeated for further mastery.

LANG 14491 - Advanced Technical Topics in Modern Languages (1 to 4)

Designed primarily for credit in the study of a language other than English, French, or Spanish. Advanced level, credited experiences focusing on topics requiring technical vocabulary from other higher education institutions may be equated to this course number. Credit under this course number may be used as advanced electives in a modern language major or minor. Course may be repeated for further mastery.

LANG 14492 - Advanced Literary Topics in Modern Languages (1 to 4)

Designed primarily for credit in the study of a language other than English, French or Spanish. Advanced level, credited experiences focusing on literary topics from other higher education institutions may be equated to this course number. Credit under this course number may be used as advanced electives in a modern language major or minor. Course may be repeated for further mastery.

LANG 14582 - International Heroes: France, Spain, and England (3)

Literary selections in French, Spanish and English will trace the development of the histories and legends of Sir Lancelot, Roland and El Cid in and out of their home countries, from the 12th through the 17th centuries. French and Spanish majors will read the appropriate selections in their original languages; other readings will be in English. Non-language majors will read in English translations. For graduate or undergraduate credit. Graduate credit will require an additional research paper. Prerequisite: LANG 14448 or LANG 14400 level literature course in appropriate language.

MATH - Mathematics and Statistics

Math Skills

A basic remedial course sequence structured in 6 modules designed to build mastery of basic mathematical concepts and skills needed for success in college-level algebraic mathematics courses. Concurrent

enrollment in Math Skills courses (17080, 17081, and 17082) listed as prerequisites to other courses is required. The course does not satisfy The Northwest Core requirements or any graduation requirements. (F, S, SS)

MATH 17080 - Math Skills Mods 1 and 2 (1)

Real numbers and solving/graphing linear equations. Concurrent enrollment in MATH 17081 and MATH 17082 required.

MATH 17081 - Math Skills Mods 3 and 4 (1)

Solving/graphing linear inequalities and polynomials. Concurrent enrollment in MATH 17080 and MATH 17082 required.

MATH 17082 - Math Skills Mods 5 and 6 (1)

Factoring and rational expressions and equations. Concurrent enrollment in MATH 17080 and MATH 17081 required.

Co-Requisites

MATH 17014 - Strategies for General Statistics (1)

A basic developmental course aligned specifically with General Statistics (MATH 17114) to build competencies in the mathematics required for success in MATH 17114. The course does not satisfy The Northwest Core requirements in mathematics or any graduation requirement. Required for students enrolled in MATH 17114 with an ACT Math score below 22 AND a high school cumulative GPA below 3.0. (F, S)

MATH 17015 - Strategies for Concepts of Mathematics (1)

A basic developmental course aligned specifically with Concepts of Mathematics (MATH 17115) to build competencies in the mathematics required for success in MATH 17115. The course does not satisfy The Northwest Core requirements in mathematics or any graduation requirement. Required for students enrolled in MATH 17115 with an ACT Math score below 22 AND a high school cumulative GPA below 3.0. (F, S)

MATH 17018 - Strategies for College Algebra (2)

A basic developmental course aligned specifically with College Algebra (MATH 17118) to build competencies in the mathematics required for success in MATH 17118. The course does not satisfy The Northwest Core requirements or any graduation requirement. Required for

students enrolled in MATH 17118 with an ACT Math score below 22 AND a high school cumulative GPA below 3.0. (F, S)

MATH 17071 - Strategies for Fundamentals of Mathematics (2)

A basic developmental course aligned specifically with Fundamentals of Mathematics (MATH 17171) to build competencies in mathematics required for success in MATH 17171. The course does not satisfy The Northwest Core requirements in mathematics or any graduation requirement. Required for students enrolled in MATH 17171 with an ACT Math score below 22 AND a high school cumulative GPA below 3.0. (F, S)

MATH 17110 - Finite Mathematics (4)

Topics include set algebra, matrices, functions, analytics of the straight line, linear programming and probability spaces, with emphasis on applications from business and economics. Will satisfy The Northwest Core requirement in mathematics. Proficiency examination is available. Prerequisite: An ACT Math score of 22 or higher, high school GPA of 3.00 or higher, or MATH 17082 with a minimum grade of C. (F, S)

MATH 17115 - Concepts of Mathematics (3)

An explanation of ways in which mathematics is used to understand the contemporary world. Will satisfy The Northwest Core requirement in mathematics. A proficiency examination is available. Prerequisite: A minimum ACT Math score of 22, or a minimum high school cumulative GPA of 3.0, or MATH 17082 with a minimum grade of a C, OR concurrent enrollment in MATH 17015. (F, S)

MATH 17117 - Precalculus (4)

A course to prepare students to take calculus. Topics include functions and graphs, equations and inequalities, and analytic geometry and trigonometry. Will satisfy The Northwest Core requirement in mathematics. Prerequisite: An ACT Math score of 22, or a high school cumulative GPA of 3.8 or higher, or MATH 17082 with a minimum grade of C. (F, S)

MATH 17118 - College Algebra (3)

A course for helping students use functions to model situations. Will satisfy The Northwest Core requirement in mathematical reasoning. Proficiency examination is available. Prerequisite: An

ACT Math score of 22 or higher, or high school GPA of 3.00 or higher, or a minimum grade of C in MATH 17082, or concurrent enrollment in MATH 17018. (F, S)

MATH 17119 - Trigonometry (2)

Trigonometric functions and analytic trigonometry. Proficiency examination is available. Prerequisite: An ACT Math score of 22 or higher, or a high school GPA of 3.00 or higher, or MATH 17082 with a minimum grade of C. (F, S)

MATH 17120 - Calculus I (4)

An introduction to single-variable calculus. Topics include intuitive treatment of limits and continuity, differentiation of elementary functions, curve sketching, extreme values, areas, rates of change, definite integral and fundamental theorem of calculus. Will satisfy The Northwest Core requirement in mathematics. Proficiency examination is available. Prerequisites: A minimum grade of C in MATH 17117, or at least a C in both MATH 17118 and MATH 17119, or equivalent. ACT Math score of at least 27, or a high school GPA of 3.9 is recommended. (F, S)

MATH 17121 - Calculus II (5)

Topics include further applications and integration techniques, an introduction to multivariate topics, and sequences and series. Prerequisite: A minimum grade of C in MATH 17120 or consent of instructor. (F, S)

MATH 17125 - Special Topics (1 to 4)

Topics will vary but the rigor and level will appropriate for beginning undergraduate students. Prerequisites: ACT math score of at least 22 or a high school GPA of at least 3.0 or MATH 17082.

MATH 17171 - Fundamentals of Mathematics (3)

An analytic exploration of elementary mathematics concepts, including set theory, operations in numeration systems and bases, number theory, operations and applications with rational and real numbers, probability and statistics, logic, relations and modular arithmetic. Will satisfy The Northwest Core requirement in Mathematics. Proficiency examination is available. Prerequisite: A minimum ACT Score of 22, or a minimum high school cumulative GPA of 3.0, or MATH 17082 with minimum grade of C, OR concurrent enrollment in MATH 17071. (F, S)

MATH 17197 - Exploring Mathematics-Related Fields (1)

A course introducing students to what it means to be a mathematics major by experiencing some of the work mathematicians do and the types of careers and opportunities open to mathematics majors beyond teaching. Prerequisites: A minimum grade of C in one of the following: MATH 17117 or MATH 17118 or MATH 17120 or MATH 17171. (S)

MATH 17200 - Special Offering (1 to 4)

MATH 17215 - Discrete Mathematics (3)

An introduction to discrete structures and concepts. Topics may include sets, symbolic logic, boolean algebras, and combinatorics. Prerequisite: A minimum grade of C in any of the following: MATH 17117 or MATH 17118 or MATH 17120. (F, S)

MATH 17311 - Linear Algebra (3)

An elementary introduction to finite-dimensional vector spaces and matrices. Topics include linear independence, bases, matrix operations, canonical forms, similarity, invertibility, geometric applications and determinants. Prerequisite: MATH 17117 with a minimum grade of C or MATH 17120 with a minimum grade of C. (F)

MATH 17319 - Graph Theory (3)

An introduction to the theory and applications of graphs. Topics may include undirected and directed graphs and trees. Prerequisite: A minimum grade of C in any of the following: MATH 17117 or MATH 17118 or MATH 17120. (F)

MATH 17321 - Calculus III (4)

Topics include polar and parametric equations, additional multivariate topics, vector valued functions, and vector analysis. Prerequisite: A minimum grade of C in MATH 17121 or consent of instructor. (F)

MATH 17351 - College Geometry (3)

A survey of geometry with an emphasis on theorems and proofs. Prerequisites: A minimum grade of C in MATH 17117 or A minimum grade of C in MATH 17120 or consent of instructor. MATH 17390 recommended. (S)

MATH 17361 - Differential Equations (3)

A study of solutions of elementary differential equations. Topics include standard first-order forms, special higher-order linear equations, Laplace transform techniques, power series solutions and applications. Prerequisite: A minimum grade

of C in MATH 17121 or consent of instructor. (S)

MATH 17390 - Transition to Proofs (3)

Topics include sets, relations, the propositional and predicate calculus and methods of mathematical proof.

Prerequisites: A minimum grade of C in MATH 17117 or A minimum grade of C in MATH 17120 or consent of instructor. MATH 17215 or MATH 17319 recommended. (F)

MATH 17400 - Special Offering (1 to 4)

MATH 17415 - Modern Algebra-Rings (3)

An introduction to standard abstract algebraic systems focusing on rings and fields. Prerequisite: A minimum grade of C in MATH 17390 or consent of instructor. (F)

MATH 17416 - Modern Algebra-Groups (3)

An introduction to standard abstract algebraic systems focusing on groups. Prerequisite: A minimum grade of C in MATH 17390 or consent of instructor. (S, odd years)

MATH 17421 - Introduction to Analysis (3)

A careful examination of the main theorems of elementary calculus. Topics include completeness of \mathbb{R} , limits of sequences and functions, continuity, mean-value theorem, Riemann integration and representation of functions. Prerequisites: A minimum grade of C in both MATH 17121 and MATH 17390 or consent of instructor. (S)

MATH 17495 - Seminar in Mathematics (2)

This course is a survey of real-life mathematical applications that will provide senior-level students of mathematics an opportunity to apply their mathematical knowledge. Prerequisite: 12 hours of mathematics at the 300+ level. (F, S)

MATH 17499 - Independent Study (1 to 3)

Prerequisite: Consent of instructor. May be repeated with different topics.

MATH 17511 - Applied Linear Algebra (3)

The course focuses on how linear algebra is used for nonlinear representation via splines and wavelets. It includes applications in signal processing, image analysis and financial analysis. Prerequisite: A minimum grade of C in MATH 17311 or consent of instructor. (S, even years)

MATH 17518 - Number Theory (3)

Topics include divisibility, congruences, theory of quadratic residues, Diophantine analysis. Prerequisite: A minimum grade of C in MATH 17390 or consent of instructor. (F, odd years)

MATH 17520 - Applied Analysis (3)

An advanced course in analysis which may include vector analysis, differentials, integration theory, elementary and analytic functions of a complex variable.

Prerequisites: A minimum grade of C in both MATH 17121 and MATH 17390 or consent of instructor. (F, even years)

MATH 17599 - Special Projects (1 to 6)

Prerequisites: 30 hours in mathematics or computer science and consent of instructor. May be repeated with different topics.

Mathematics Education

MATH 17280 - Methods in Teaching with Technology (3)

Introduces technological tools and appropriate methods for using them to teach mathematics and science. Prerequisite: Successful completion of a Northwest Core Requirement for Digital Literacy. (S)

MATH 17371 - Algebra and Geometry for Elementary and Middle School Teachers (3)

Topics include plane and space figures, congruence, similarity, mensuration and transformation geometry. For elementary and middle school education majors only. Proficiency examination is available. Prerequisite: A grade of C or better in MATH 17171. (F, S)

MATH 17471 - Mathematical Methods for Elementary Teachers (3)

A study of current techniques, this course is designed to acquaint prospective teachers with both the content of elementary school mathematics and the materials available to aid in the teaching of this content. Activities are incorporated to provide experience with the various methods of teaching mathematics to elementary students. Prerequisite: A grade of C or better in MATH 17371. (F, S, SS)

MATH 17473 - Advanced Topics for Middle School Teachers (3)

A course designed to provide more fundamental treatment of mathematical topics for the middle school. Topics include algebraic systems, trigonometry, number

theory, problem-solving techniques, graphing, logic, probability and its applications to statistics. Prerequisite: Consent of instructor. (F)

MATH 17497 - Connections to Teaching Mathematics (1)

A course that will analyze and review topics from throughout the mathematics curriculum and connect these topics to teaching at the high school level. Prerequisite: 19 hours of Mathematics. (S)

MATH 17498 - Seminar in Teaching Elementary School Mathematics (1)

Supervised practice in teaching mathematics in the elementary school with weekly seminar on teaching issues. Prerequisite: MATH 17471. (S)

MATH 17500 - Special Offering (1 to 4)

MATH 17575 - Workshop in Mathematics Education (1 to 6)

Prerequisite: consent of instructor. May be repeated with different topics.

MATH 17580 - Methods in Secondary School Mathematics (3)

A study of teaching procedures and current literature useful in teaching secondary school mathematics. Prerequisite: MATH 17280 with a grade of C or better, and Admittance to Teacher Education or consent of instructor. (S)

MATH 17582 - Mathematical Methods for Middle School Teachers (3)

A study of current literature and techniques useful in teaching middle school mathematics. Prerequisite: MATH 17280 and MATH 17371 with grades of C or better, and Admittance to Teacher Education or consent of instructor.

Statistics

MATH 17114 - General Statistics (3)

Basic concepts of decision making, central values, variability, probability and statistical inference, elementary concepts of correlation, parametric tests of significance, and regression analysis. Will satisfy The Northwest Core requirement in mathematics. Proficiency examination is available. Prerequisite: A minimum ACT Math score of 22, or a high school cumulative GPA of 3.00 or higher, or MATH 17082 with a

minimum grade of C, OR concurrent enrollment in MATH 17014. (F, S, SS)

MATH 17230 - Probability and Statistics (3)

Fundamental principles and techniques of statistical investigations including probability, discrete and continuous random variables, estimation and hypothesis testing. Prerequisites: MATH 17120 or consent of instructor. (F, S)

MATH 17316 - Linear Statistical Models I (3)

Applied course in statistics, including analysis of variance, multiple regression and the use of SAS, a statistical package. Prerequisite: A minimum grade of C in either MATH 17114 or MATH 17230, or consent of instructor. (F)

MATH 17318 - Linear Statistical Models II (3)

A course covering many of the statistical designs and techniques widely used in research and applications. Prerequisite: A minimum grade of C in either MATH 17114 or MATH 17230. (S)

MATH 17356 - Data Mining with Applications to Business and Sciences (3)

This course is an introduction to the basic core concepts of knowledge discovery and the more useful techniques and standard algorithms with a focus on the hands-on start-to-finish process for learning from data and turning data into actions. Students will learn how to convert big data into usable information and further discover valuable knowledge via modeling. Prerequisite: MATH 17114 or MATH 17230 or consent of instructor. (F)

MATH 17366 - Statistical Machine Learning for Pattern Recognition (3)

This course is science and engineering oriented and focuses on pattern recognition to present approximate learning algorithms that permit fast approximate answers in situations where exact answers are not feasible to graphical models describing probability distributions. Prerequisites: MATH 17230 and MATH 17316. (S)

MATH 17416 - Modern Algebra-Groups (3)

An introduction to standard abstract algebraic systems focusing on groups. Prerequisite: A minimum grade of C in MATH 17390 or consent of instructor. (S, odd years)

MATH 17531 - Applied Time Series (2)

A course in forecasting and some of the statistical techniques that can be used to produce forecasts. Prerequisites: MATH 17114 or MATH 17230 or consent of instructor.

MATH 17535 - Probability Theory (3)

A mathematical development of probability with emphasis on continuous random variables. Prerequisites: MATH 17121 and MATH 17230, or MATH 17610 or consent of instructor. (F, odd years)

MATH 17536 - Statistical Inference (3)

A mathematical development of statistics with emphasis on continuous random variables. Prerequisite: MATH 17535. (S, even years)

MGMT - Management

MGMT 54100 - Special Offering (1 to 2)

MGMT 54200 - Special Offering (1 to 4)

MGMT 54201 - MBA Business Foundation (9)

This course provides the requisite knowledge in accounting, economics, finance, management, and marketing. Preparing an MBA student with the foundation in general business necessary for success. This course does not fulfill any requirement for any undergraduate business major or minor.

MGMT 54300 - Special Offering (1 to 4)

MGMT 54310 - Managerial Communication (3)

Designed to acquaint student with current knowledge and emerging trends in business communication. Emphasis on developing and improving business writing (letters, memoranda, reports) and oral presentation skills, understanding the importance of communication in organizations, developing skills needed in the job search and learning how to match specific communicative styles to various situations. Prerequisites: COM 29102, ENGL 10112 or ENGL 10115. (F, S, SS)

MGMT 54313 - Principles of Management (3)

An introduction to the field of management designed to give a basic understanding of the principles, concepts and functions of management within that social system called the information era. Successful management is dependent on fostering responsible and autonomous behavior, as authoritarian structures are being replaced by democratic processes evolving within modern

organizations. Thus, successful management is studied as the processes and behavior of participative management. Prerequisite: Completion of a minimum of 30 academic hours. (F, S, SS)

MGMT 54314 - Human Resource Management (3)

A study of objectives, functions and organization of typical human resource management, emphasizing job analysis, selection and placement; development and training; safety and health; employee relations; administration of wages and benefits; labor legislation; and personnel research. Prerequisite: MGMT 54313. (F, S, SS)

MGMT 54315 - Operations Management (3)

A study of the several areas of primary concern to the production manager including layout, work measurement, wage incentives, inventory control and quality control. The use of both qualitative and quantitative tools to aid in decision-making will be introduced. Prerequisites: MGMT 54313, MATH 17114, MATH 17118, or consent of instructor. (F, S, SS)

MGMT 54316 - Organizational Behavior and Theory (3)

The application of principles and concepts of the behavioral sciences and total quality management to the interpersonal relationships found within modern organizations. As quality management practices replace authoritarian structures with more democratic processes, a need to stress continuous improvement, self-regulation of work content and structure within a job, self-evaluation of performance, self-adjustment in response to work system variability, and participation in the setting of job goals or objectives are seen as the key to effective managerial behavior. Prerequisite: MGMT 54313. (F, S, SS)

MGMT 54318 - Entrepreneurship (3)

A course designed to aid the prospective small business owner in deciding whether or not to start or purchase a retail business, becoming aware of the pitfalls and failure, and understanding how various decisions might increase chances of success. Small business will be compared and contrasted with the larger corporation on several topics. Prerequisite: MGMT 54313. (F, SS)

MGMT 54320 - Negotiations (3)

A study of the theoretical and practical perspectives of the various negotiation process strategies and tactics found in the contemporary business and social setting. Emphasis will be placed on the preparation element of the negotiation process, distributive and integrative negotiation techniques, along with developing negotiation styles, relational trust building, power, persuasion and ethics, creativity and problem-solving in negotiations, multi-party and multi-cultural negotiations. Prerequisite: MGMT 54313. (S, SS)

MGMT 54321 - Staffing (3)

This course takes an in-depth look at the flow of talent into and through organizations. It covers human resource planning, recruitment and selection, career transitions and employee development as they relate to effective workforce management. Prerequisite: MGMT 54314 and MGMT 54316.

MGMT 54322 - Employee Rewards and Benefits (3)

This course provides an overview of all aspects of the total compensation package from a human resource management perspective. Special attention is provided to pay and benefits, as well as how total compensation can be utilized strategically by organizations. New and emerging approaches to compensation are also considered. Prerequisites: MGMT 54314 and MGMT 54316.

MGMT 54340 - Special Topics in Business (1 to 3)

Provides concentrated study on a special topic in one of the areas in the Melvin D. and Valorie G. Booth School of Business. Topics will vary. This course is repeatable for additional experience, new material and progression of study. (F, S, SS)

MGMT 54345 - Sport Management (3)

This course is designed to provide an overview of the sport industry and provide insight into the various industry segments, related operations, functions, and career opportunities in sport ranging from youth/public supported sport to elite/private/professional sport. Prerequisites: MGMT 54313 and MKTG 55330.

MGMT 54400 - Special Offering (1 to 4)

MGMT 54413 - Business and Society (3)

Economic, social, technological and ethical problems facing American business and its

leaders in the 21st century. Prerequisites: MGMT 54313 and senior standing. (F, S, SS)

MGMT 54415 - Intern in Management (1 to 3)

Students with junior or senior standing, with the permission of the chairperson, may enroll in an intern program with an approved business concern. This course is repeatable for new experience. Prerequisites: MGMT 54313 and a 2.5 GPA. (F, S, SS)

MGMT 54417 - Organizational Policy and Decision Making (3)

A course designed to give students the opportunity to integrate information from the functional areas of an organization in the formation and implementation of organizational policy. Computer simulations will also be utilized to simulate organizational decision-making. Prerequisite: Senior standing, ECON 52150 and ECON 52151 with a minimum grade of C in each of the courses, and completion of all other common professional component courses. (F, S, SS)

MGMT 54419 - Independent Study in Management (1 to 3)

A course to provide students with an opportunity to study a particular problem or pursue an independent reading program. Must have permission of the School Director. This course is repeatable for mastery. Prerequisite: MGMT 54313. (F, S, SS)

MGMT 54421 - Internship in Human Resource Management (1 to 3)

Students with junior or senior standing, with the permission of the School Director, may enroll in an intern program in the area of human resource management with an approved business concern. Prerequisites: MGMT 54314 and MGMT 54316. (F, S, SS)

MGMT 54436 - Multinational Management (3)

A course to provide an understanding of the operations of multinational corporations. It will concentrate on the decision making process as related to the planning, organizing and controlling of multinational operations. Specifically, this includes differences in operation overseas, political risks, international finance, trade and trade barriers, joint ventures, partnerships and human resource planning. Prerequisite: MGMT 54313. (S)

MGMT 54440 - Employment Strategy (1)

A study of strategies in the employment seeking process. Topics include resumes, letters of application, interviewing, networking and research techniques. Prerequisite: Senior standing or consent of instructor.

MGMT 54500 - Special Offering (1 to 4)

MGMT 54520 - Advanced Human Resource Management Seminar (3)

An intensive study of the federal laws that provide the framework for business managers. The class also explores current topics in Human Resource Management appropriate for HR practitioners and practicing managers. This course serves as the capstone course for the HR portion of the OB/HR major. Students cannot receive credit for the MGMT 54520 and MGMT 54620. Prerequisite: MGMT 54314, MGMT 54316, and senior or graduate standing.

MILS - Military Science

MILS 42102 - Leadership Practicum (2)

Examines leadership in basic tactical and patrolling operations. A tactical application exercise and participation in physical fitness conditioning are required. Students practice leadership according to 16 principles and learn basic individual soldier skills. (F)

MILS 42112 - Leadership Practicum (2)

Continuation of MILS 42102. Examines advanced squad and platoon tactical operations with emphasis on patrolling operations. Topics include: leadership techniques, basic first aid and problem-solving exercises. A tactical field application exercise and physical fitness conditioning program are required. Students perform various leadership roles and present classroom instruction. (S)

MILS 42116 - Foundations of Officership (1)

Introduces the student to issues and competencies central to a commissioned officer's responsibilities. These initial lessons establish a framework for understanding officership, leadership, and Army values. Addresses life skills including fitness and time management. Designed to give the student an accurate insight into the Army profession and the officer's role in the Army. (F)

MILS 42126 - Basic Leadership (1)

Course builds upon the fundamentals introduced in MILS 42116 Foundations of

Officership, by focusing on leadership theory and decision making. Life skills lessons include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Prepares students to advance to more complex leadership instruction concerning the dynamics of organization. Students are increasingly required to demonstrate knowledge of leadership fundamentals and communications. (S)

MILS 42202 - Leadership Practicum (2)

Course examines squad and platoon offensive and defensive operations and leadership procedures in patrolling operations. A tactical application exercise and participation in physical fitness conditioning are required. Students perform various leadership roles and present classroom instruction. (F)

MILS 42212 - Leadership Practicum (2)

Continuation of MILS 42202 to examine advanced squad and platoon offensive and defensive operations, reaction to obstacles and leadership procedures in patrolling operations. A tactical application exercise and participation in physical fitness conditioning are required. Students perform various leadership roles and present classroom instruction. (S)

MILS 42216 - Individual Leadership Studies (2)

Designed to develop within the student a knowledge of self, self-confidence and individual skills. Through experiential learning activities, students develop problem-solving and critical-thinking skills, and apply communication, feedback, and conflict-resolution skills. Builds upon the fundamentals introduced in MILS 42116 and MILS 42126, this course delves into several aspects of communication and leadership theory. Focuses on critical life skills which enable the student's future success. Includes a major leadership and problem-solving case study which draws upon previous instruction. Prerequisites: MILS 42116 and MILS 42126. To be taken concurrently with MILS 42202. (F)

MILS 42226 - Leadership and Teamwork (2)

Course focuses on self-development guided by knowledge of self and group processes. Experiential learning activities are designed to challenge students' current beliefs, knowledge and skills. Takes the approach of placing students in a wide variety of group exercises designed to emphasize various

leadership competencies and insights. The instructor, acting as facilitator, helps guide student processing of the events to derive the leadership, group dynamics and problem-solving lessons that the exercises offer. Practical life skills are emphasized.

Prerequisites: MILS 42116, MILS 42126, MILS 42216. To be taken concurrently with MILS 42212. (S)

MILS 42300 - Leadership and Management I (3)

Provides the student with an examination of ethics, career professionalism, attributes of leadership and selected light infantry tactical skills. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42302. (F)

MILS 42302 - Leadership Practicum (2)

Examines squad and platoon offensive and defensive operations, the patrol leader in patrolling operations, and a tactical application exercise is required. Students perform in various leadership roles and present classroom instruction. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42300. (F)

MILS 42310 - Small Unit Leadership and Tactics (3)

Course studies principles and fundamentals of military operations, the decision-making process, planning and execution of light infantry operations, and a thorough examination of military ethics. Prerequisite: MILS 42300, advanced-course status, required to be taken concurrently with MILS 42312. (S)

MILS 42312 - Leadership Practicum (2)

Familiarization with military firearms, including assembly and disassembly, tactical communications and a field artillery request and application exercise is required. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42310. (S)

MILS 42400 - Leadership and Management II (3)

Study of the principles of decision making, the planning and conduct of unit training, the role of the military in the U.S., professional ethical standards, and the use of those standards in situations involving power, influence, and subordinate counseling. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42402. (F)

MILS 42402 - Leadership Practicum (2)

Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. Participation in physical fitness conditioning and tactical application exercise required. Students perform in various leadership positions and present classroom instruction. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42400. (F)

MILS 42410 - Army Management and Organizational Systems (3)

Advanced study of leadership and management that examines administration at the company level and military justice and an overview of the obligations and responsibilities of an officer. Prerequisite: Advanced course status, required to be taken concurrently with MILS 42412. (S)

MILS 42412 - Leadership Practicum (2)

Practical applications in problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. A tactical application exercise and participation in physical fitness conditioning are required. Students perform various leadership roles and conduct classroom instruction. Prerequisite: Advanced-course status, required to be taken concurrently with MILS 42410. (S)

MILS 42450 - Independent Study in Military Science (1 to 5)

Investigates selected leadership problems or topics on an individual or conference basis. Course may be repeated with a change in topic. Prerequisite: Consent of department chairperson.

MKTG - Marketing

MKTG 55100 - Special Offering (1 to 2)

MKTG 55200 - Special Offering (1 to 4)

MKTG 55300 - Special Offering (1 to 4)

MKTG 55330 - Principles of Marketing (3)

The study of determination and satisfaction of consumer wants or needs from a managerial perspective. Elements of this process include market research, demand analysis, product development, pricing, promotion and distribution. Prerequisite: Completion of a minimum of 30 academic hours. (F, S, SS)

MKTG 55331 - Retailing (3)

A strategic approach to retailing which concentrates on planning to meet the objectives of the retail concept. Specifically this includes planning and organizing the retail firm, planning and managing merchandise, on-line retailing, understanding and communicating with the consumer, choosing a store location, developing store personnel, pricing retail merchandise and integrating and controlling the retail strategy. Prerequisite: MKTG 55330. (F, S, SS)

MKTG 55332 - Promotion (3)

A study of that element of the marketing mix that relates to persuasive communication with prospective stakeholders of the firm. Specifically this includes an analysis of advertising, personal selling, publicity, direct marketing, Internet marketing and sales promotion. Prerequisite: MKTG 55330. (F, S, SS)

MKTG 55333 - Consumer Behavior (3)

An interdisciplinary behavioral approach to understanding the consumer. Consideration is given to consumer psychological, sociological and cultural processes as they relate to the development of marketing strategies. Prerequisite: MKTG 55330. (F, S, SS)

MKTG 55400 - Special Offering (1 to 4)**MKTG 55425 - Knacktive (3)**

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more information. Course is repeatable for additional experience. (S)

MKTG 55430 - Sales and Sales Management (3)

A study in the art of selling and the sales process in addition to the managerial aspects of sales management such as planning, organizing, staffing and supervising the sales effort. Prerequisites: MKTG 55330 or AGRI 03302. (F, S, SS)

MKTG 55431 - Logistics Management (3)

An analysis of the physical distribution function in marketing with emphasis on channel structure and relationships, transportation, inventory analysis, warehousing, communication and information flow, and facility analysis as elements of an integrated system. Prerequisite: FIN 53324, MGMT 54315, MKTG 55330. (F)

MKTG 55432 - Marketing Research (3)

An analysis of the various methods and techniques available for collection and interpretation of data as they apply to marketing research. Prerequisites: MATH 17114 and MKTG 55330. (F, S, SS)

MKTG 55434 - Marketing Management (3)

The major areas of marketing are examined from the viewpoint of the marketing executive. Emphasis is given to consumer analysis, market research, product planning, channels of distribution, promotion, pricing and the integration of the above in the development of the total marketing program. Requires a major team project, requiring comprehensive marketing analysis. Prerequisites: MKTG 55330 and senior standing. (F, S, SS)

MKTG 55435 - Intern in Marketing (1 to 3)

Students with junior or senior standing with the permission of the School Director may enroll in an intern program with an approved business concern. This course is repeatable for new experience. Prerequisites: MKTG 55330 and a minimum 2.5 cumulative GPA. (F, S, SS)

MKTG 55437 - International Marketing (3)

An interdisciplinary approach to marketing in the international marketplace. Specifically, this course focuses on how to conduct cultural environment analysis, international marketing strategy development and implementation based on economics, sociology and cross-cultural psychology. (F,S)

MKTG 55438 - International Business (3)

A course on the myths, misconceptions and misinformation prevailing in International Business, especially in the areas that affect us most-protectionism vs. free trade, balance of payments, deficits and surpluses, the European Union, WTO, problems unique to developing countries, changing trade patterns and reasons why, floating vs. fixed monetary systems, cultural differences and multinationals. (F, S, SS)

MKTG 55439 - Independent Study in Marketing (1 to 3)

A course to provide students with an opportunity to study a particular problem or pursue an independent reading program or research program in marketing. This course is repeatable for further mastery. Must have permission of the School Director. (F, S, SS)

MKTG 55440 - Business Study Abroad (1 to 6)

Courses taken in a foreign country, which encompass a wide variety of business concepts and applications. May include internships taken abroad and special independent study projects. The number of hours assigned will be determined by the student's advisor and the School Director, based upon the rigor and length of the course or extent of the internship. This course is repeatable for new experience.

MKTG 55500 - Special Offering (1 to 4)**MMED - Mass Media****MMED 20110 - Fundamentals of Electronic Media Production (3)**

This course will acquaint the student with techniques and equipment to produce audio and video content, as well as web pages. Convergence, distribution methods and standard industry practices are also covered. (F, S)

MMED 20111 - Introduction to Broadcast Operations (3)

An introduction to the operation of radio and television equipment for professional broadcast situations. Includes control room procedures as well as a study of FCC rules and regulations. (F, S)

MMED 20120 - Introduction to Mass Media (3)

Overview of the history of the media, social responsibilities of the journalist and issues facing the media today. (F)

MMED 20130 - Professional Media Writing (3)

The course will prepare students for media writing, with special emphasis on AP style, news judgment and a thorough review of grammar. (F, S)

MMED 20150 - Journalism Practicum (Yearbook) (1)

Laboratory practice working on the Tower student yearbook. This course is repeatable for new, advanced or expanded experience. (F, S)

MMED 20151 - Journalism Practicum (Newspaper) (1)

Laboratory practice working on the Northwest Missourian student newspaper. This course is repeatable for new, advanced or expanded experience. (F, S)

MMED 20215 - Practicum in Radio (1)

Practical experience on the staff of campus station KZLX-LP. Additionally, there are six areas of work: underwriting, production, promotions, sports, news and music. This course is repeatable for new, advanced or expanded experience. Prerequisites: MMED 20110 or MMED 20111. (F, S)

MMED 20216 - Practicum in Television (1)

Practical experience on the staff of campus station KNWT-TV. The areas of work include the use of television equipment and preparation of programs. This course is repeatable for a new, advanced or expanded experience. Prerequisite: MMED 20110 OR MMED 20111. (F, S)

MMED 20220 - Media Literacy (3)

This course will concentrate on media content and emphasize critical analysis and the ability to look at many sides of a topic that concerns the globally-aware citizen. Media Literacy will analyze information, values, technology and the underlying messages conveyed via mass media. The course examines the accuracy of messages and explores how media shapes views of politics, culture and society (F,S).

MMED 20221 - Ethnographic Film Study (3)

A study of international cinema from a multicultural standpoint. The course will focus on some predominant themes common to many world cultures, themes such as war, liberation, immigration and racism. (F, S)

MMED 20224 - Introduction to Audio (3)

A study of the basic theoretical and practical elements in audio production. Performance, equipment, program productions and editing are covered. Lecture and laboratory. Prerequisite: MMED 20111 or consent of the instructor. (F)

MMED 20225 - Video Production (3)

Basic theory and practice in video production. Lighting, video cameras, picture aesthetics, television audio and post-production, including non-linear editing, are covered. Prerequisite: MMED 20111 or consent of the instructor. (S)

MMED 20227 - Reporting (3)

Comprehensive preparation in identifying, gathering, structuring and styling news. Prerequisite: MMED 20130. (S)

MMED 20230 - Introduction to Advertising (3)

This introductory course will examine the foundations, concepts, strategies and operations of the advertising industry. This course will examine the real world of advertising and present the breadth as well as depth of the field. (F, S)

MMED 20243 - Media Design (3)

Study of print, web and mobile publications with a concentration on production and design using computers. (F, S)

MMED 20300 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. This course is repeatable for a new, advanced or expanded experience.

MMED 20302 - Special Topics (1 to 3)

Courses will be occasionally offered on a one-time or issue-oriented basis. Credit and prerequisites as announced. See individual semester course offerings for details. Course can be repeated for a new, advanced or expanded experience for a total of up to 9 semester hours.

MMED 20303 - Introduction to Web Publishing (3)

An introduction to the concepts and strategies of using the Internet to communicate to an audience. Students will analyze different types of web sites and why they are built, and examine common site features and good site design and content practices. (F, S)

MMED 20304 - Advertising Case Studies (3)

This elective course examines the concepts, strategies and operations of specific advertising campaigns, both past and present. This examination allows students to

better understand the strategies and frailties of advertising campaigns that have both succeeded and failed. The course ensures students are aware of famous advertising campaigns, and provides them with a full understanding of what contributes to the fame, success and failure of those campaigns. (S)

MMED 20314 - Communication Law and Ethics (3)

A study of the legal aspects of the mass media, particularly libel, obscenity, prior restraint, licensing, privacy, copyright, FCC regulations and First Amendment issues. Also, the course will include examination of media ethics and responsibility. Prerequisite: Advanced Standing. (F, S)

MMED 20315 - Video Journalism (3)

A study of the information-gathering, writing, videography, and, video and audio editing used in preparing content for video-based news providers such as television and the web. Prerequisite: MMED 20120, MMED 20130, and MMED 20227. (F)

MMED 20320 - Theories of Mass Communication (3)

Comprehensive examination of historical and contemporary theories of mass communication and the development of mass communication research. Prerequisite: Advanced standing. (F, S)

MMED 20321 - Media Planning and Sales (3)

The purpose of this course is to introduce the student to the elements and processes of media planning and buying within the advertising industry. In addition to providing a basic framework for those interested in pursuing a career in media, this course is also intended to prepare students for advertising sales and related careers. Prerequisites: MMED 20230. (S)

MMED 20322 - Advanced Practicum in Radio (2)

Advanced experience including leadership positions on the staff of campus station KZLX-LP. This course is repeatable for a new, advanced or expanded experience. Prerequisites: Advanced standing and MMED 20215. (F,S)

MMED 20326 - Advanced Practicum in Television (2)

Advanced experience on the staff of campus station KNWT-TV. The work includes advanced production, directing and/or management. This course is repeatable for a new, advanced or expanded experience. Prerequisites: Advanced standing and MMED 20216 and MMED 20225. (F, S)

MMED 20327 - Advanced Reporting (3)

Theory and practice of reporting for a variety of media. Students will develop important skills in interviewing, computer-assisted reporting and in covering special beats. Students will continue to develop their ability to correctly use Associated Press broadcast and print style. Students will produce content for newspaper, television and online coverage. Prerequisites: MMED 20227 and MMED 20315. (S)

MMED 20329 - Audio Technology and Recording (3)

An examination of audio technology and recording techniques as they apply to studio production. Students will explore the theory of audio technology from the past to the present through studio and live multi-track recording, editing and mixing sessions. Lecture and Laboratory. Prerequisite: MMED 20224. (S)

MMED 20330 - Advanced Video Production (3)

Advanced study and development of video production skills. Specific areas of study include electronic field production, post production, lighting and set design. Prerequisites: Advanced standing and MMED 20225. (F, alt. years)

MMED 20333 - Social Media Strategies (3)

The study and application of social media tools and theories as they apply to the development of a social media strategy as employed by media and/or creative organizations. Prerequisite: Advanced Standing. (F)

MMED 20334 - Multimedia Production (3)

This course will examine the types, processes and applications of multimedia content. Emphasis will be on the production of interactive presentations. Prerequisites: MMED 20243 and MMED 20303. (F, S)

MMED 20343 - Advanced Media Design (3)

Study of advanced design techniques and principles used for print and multimedia design. Various software packages, design

trends and readability issues will be examined. Prerequisite: MMED 20243. (F)

MMED 20345 - Sports Broadcasting (3)

Sports Broadcasting will apply the student's current multimedia journalism skills and experience to the specialized field of sports coverage. The student will explore the history of broadcast sports coverage as well as the direction in which the field is headed. He or she will critically review journalistic ethics as they apply to sports coverage. The student will use interviewing, writing, audio and video as storytelling tools. The student will also develop basic skills associated with sports play-by-play. Prerequisite: MMED 20315. (S)

MMED 20350 - Advanced Journalism Practicum (Yearbook) (2)

Advanced laboratory practice working on the Tower student yearbook. This course is repeatable for a new, advanced or expanded experience. Prerequisites: Advanced standing and MMED 20150. (F, S)

MMED 20351 - Advanced Journalism Practicum (Newspaper) (2)

Advanced laboratory practice working on the Northwest Missourian student newspaper. This course is repeatable for a new, advanced or expanded experience. Prerequisites: Advanced standing and MMED 20151. (F, S)

MMED 20352 - Copy Editing (3)

Theory and practice of news processing, i.e. copy editing, coaching, grammar and news structure. Prerequisite: MMED 20227. (SS)

MMED 20354 - Online Magazine Practicum (1)

This practicum offers students an opportunity to work in the areas of feature writing, magazine design, feature/documentary photography, circulation, advertising, sales and marketing. This course is repeatable for a new, advanced or expanded experience. Prerequisite: Advanced standing. (F, S)

MMED 20355 - Photojournalism (3)

This is an introductory course in visual journalistic communication that will help students develop the photographic skills needed to become successful at producing images and recognizing what makes a good photograph in terms of content, composition and technical quality. Instruction will progress from basic camera operation and the news one shot to more comprehensive

visual storytelling that may incorporate video or other multimedia components. (F)

MMED 20356 - Sports Photography (3)

This course will concentrate heavily on covering sports events here on campus and also in the area. Various sports will first be examined and example photos will be viewed in class. Students will then be expected to photograph and file photos under realistic deadline situations. Students will also be introduced to web-based multimedia production methods for the sports website. Prerequisite: Advanced Standing. (S)

MMED 20357 - Opinion Writing (3)

Opinion Writing emphasizes writing and critical thinking in the development of institutional and personal editorials and columns for newspapers and other print media. The mission, obligation and history of opinion writing and the editorial page will be covered, along with correct and effective use of the English language to produce persuasive, argumentative, explanatory and informational editorials. Current issues will serve as springboards for comment. Prerequisite: MMED 20227. (S)

MMED 20358 - Feature Writing (3)

Writing and revising articles for magazines, writing queries, personality sketches and educational features. Prerequisite: Advanced standing. (S)

MMED 20359 - Sports Reporting (3)

Comprehensive preparation in identifying, gathering, structuring and styling sports news in a variety of formats. Prerequisite: MMED 20227. (F)

MMED 20370 - Live Sound Theory and Practice (3)

This course examines the basic theoretical and practical elements of live sound. Equipment, technology, performance management, production roles, sound theory, and sound measurement and analysis are covered. Lecture and Laboratory. Prerequisites: MMED 20224 and MMED 20329, or consent of instructor.

MMED 20400 - Special Offering (1 to 3)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. This course is repeatable for a new, advanced, or expanded experience.

MMED 20406 - Advanced Audio (Music) (3)

An advanced study of the theories and techniques used in the production of music. Students engage in recording, editing and production of advanced multi-track sessions for music. Topics include the theories of overdubbing, natural sound environments, audio cues and spatial relationship of various sound sources. Lecture and Laboratory. Prerequisite: MMED 20329. (Alternating Fall Trimesters)

MMED 20407 - Advanced Audio (Post) (3)

An advanced study of the theories and techniques used in the production of sound for post-production. Students engage in the recording, editing, and production of advanced multi-track sessions for video and motion picture. Topics include the theories of overdubbing, ADR, Foley, natural sound environments, audio cues, and spatial relationship of various sound sources. Lecture and Laboratory. Prerequisite: MMED 20329. (Alternating Fall Trimesters)

MMED 20409 - Media Business and Entrepreneurship (3)

An examination of the organization, operation and policies of both media organizations and independent media content producers. Students will focus on content evaluation; planning and budgeting; government regulation; and legal, ethical and censorship concerns from the perspective of the media manager/entrepreneur. Prerequisite: Advanced Standing. (F)

MMED 20412 - Comparative Mass Media Systems (3)

A study of foreign and international mass media systems in terms of structure, financing and content. Topics include the impact of political and cultural institutions on shaping media systems, international telecommunications organizations and mass media and developing nations. Prerequisite: Advanced standing. (F, alt. years)

MMED 20415 - IDM Seminar (1)

A seminar dealing in issues faced by multimedia professionals and preparation for advanced study. Major emphasis will be placed on the development of a professional portfolio, resume writing and interviews for the field of multimedia. Prerequisite: Junior or senior standing by advisement. (F)

MMED 20416 - Senior Seminar (1)

Designed to be the capstone experience for mass media and IDM majors, this course

examines media trends and practices and further prepares students for advanced study in the media field. Emphasis will be placed on portfolio/tape development and research, writing and presentation skills. Prerequisites: Advanced standing and senior status. (F, S)

MMED 20417 - Television Directing (3)

Practice in the planning, casting, rehearsing and production of a television program from the perspective of a television director. Attention will be given to advanced production techniques as well as to the aesthetic and persuasive capabilities of the medium. Prerequisites: Advanced standing and MMED 20330. (S, alt. years)

MMED 20425 - Knacktive (3)

Knacktive replicates the creative demands and intense teamwork atmosphere of a technology-oriented, professional marketing communications agency. Interested students must apply for a specific position on a team, participate in an interview, and be selected by the course faculty before registering. Prerequisites: Each position on a team has a minimum prerequisite and students can view the list on the Knacktive website, contact a Knacktive faculty member, or contact their respective department office for more information. (S)

MMED 20428 - Creative Concepts in Advertising (3)

This course emphasizes the creative approaches used in advertisements within the major media types, including print, broadcast and digital. Focus is on the message objectives of advertisements and how best to communicate to specific target audiences. Prerequisites: MMED 20230, MMED 20243, and MMED 20304 or MMED 20321. (F)

MMED 20429 - Advanced Problems in Broadcasting-Independent Study (1 to 3)

Research in an area of broadcasting which is of particular interest to the advanced student capable of individual, directed study. Independent studies must be approved by a faculty supervisory committee. This course is repeatable for a new, advanced or expanded experience. Prerequisites: Advanced standing and consent of instructor. (F, S, SS)

MMED 20430 - Advanced Advertising Strategies (3)

A capstone course which will apply advertising principles to an actual advertising

campaign. Students will form an advertising agency to create a complete advertising campaign, including situational analysis, segment identification, campaign objectives and strategies, budgeting, and creative strategies. Campaign collateral, including print, broadcast and Internet advertisements will be developed by the students and presented to the client. Prerequisites: Senior Standing and permission of instructor.

MMED 20450 - Mass Communication Study Abroad (1 to 6)

Courses taken in a foreign country, which complement Mass Communication studies. The number of hours assigned is contingent upon course rigor and will be determined by the student's advisor and department chair. Course can be repeated for a new, advanced or expanded experience for a total of up to 6 hours. (F, S, SS)

MMED 20452 - Internship (1 to 3)

Individual mass communication interests of the student are addressed through practical application through a media outlet appropriate for the student's area of concentration. Advisement required. This course is repeatable if the internship is with a different company or a different position within the previous company. Prerequisite: Advanced standing. (F, S, SS)

MMED 20459 - Independent Study in Journalism (1 to 3)

Research in the area of journalism which is of particular interest to the advanced student capable of individual, directed study. Independent studies must be approved by a faculty supervisory committee; forms are available in the office manager's office. This course is repeatable for a new, advanced, or expanded experience. Prerequisites: Advanced standing and consent of instructor. (F, S, SS)

MMED 20484 - Digital Cinematography (3)

An in-depth study of the finer points of cinematography. Camera functions, lenses, advanced lighting techniques, contrast principles, advanced picture composition, camera movement and cinematography techniques and philosophies are covered. Prerequisite: MMED 20330 or MMED 20417. (Alternating Spring Trimesters)

MMED 20490 - Sound Design and Aesthetics (3)

The culminating course in audio production, Sound Design and Aesthetics examines audio

aesthetics and the final stages of audio production through practical experience. Students take on the role of a producer and demonstrate their mastery of recording theories and practices. Topics include advanced mixing, mastering, multi-channel sound design, audio aesthetics and experimental sound. Prerequisite: MMED 20406 or MMED 20407. (S)

MMED 20499 - Field Experience in Mass Media (6 to 12)

This course will offer an opportunity to gain practical experience in the field of mass media. The experience should include a minimum of 300 hours of hands-on supervised practical experience over a 12-16 week period. The experience will be directed and supervised by an approved mass communication professional as well as a department supervisor. Field experiences must be approved by a faculty supervisory committee; forms are available in the office manager's office. This course is repeatable for a new, advanced or expanded experience. Prerequisite: department consent. (F, S, SS)

MMED 20500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. This course is repeatable for a new, advanced or expanded experience.

MOAC - MO Academy of Sci, Math, Comp

MOAC 81102 - Seminar on You and Your Community (1)

This seminar is designed for first-year Missouri Academy students. It explores skills that help the student to be academically successful. Students will also discuss living in, and contributing to, the community in which they live. The course provides a safe, nurturing environment for each to explore his/her personal identity and discover what it means to be a successful, positive, contributing member of the Missouri Academy and Northwest community.

MOAC 81103 - Colloquium (1)

Course is designed for second-year Missouri Academy students. Suitable topics will be selected from the following categories: 1) service-learning experiences and community service, 2) social responsibility and citizenship, 3) exploring connections

between academic majors and professions/careers, and 4) structure and organization of higher education. Prerequisite: MOAC 81102.

MOAC 81201 - The History of Science and Technology (3)

A survey of the impact of technology and science on the development of human culture and civilization.

MUS - Music

MUS 19180 - Introduction to Music Education (1)

This course provides an introduction to teaching music as a profession. (S)

MUS 19200 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with a change in topic.

MUS 19201 - The Enjoyment of Music (3)

A general studies course designed to provide the student a better understanding and appreciation of the varied styles of music. Fulfills Fine Arts component of The Northwest Core requirements. (F, S, SS)

MUS 19202 - Jazz Appreciation (3)

A general studies course designed to provide the student with a better understanding and appreciation of this uniquely American art form. Fulfills Fine Arts component of The Northwest Core requirements. (F, SS)

MUS 19222 - American Popular Music (3)

This course provides a cultural, social, and historical analysis of American popular music and an overview of relevant musical elements. Fulfills Fine Arts component of The Northwest Core requirements. (F)

MUS 19225 - Jazz Improvisation (2)

Designed to enable students to understand the basic concepts of jazz improvisation and to utilize the basic tools of jazz improvisation in order to express themselves musically in the jazz idiom.

MUS 19280 - World Music (3)

World music surveys the music of cultures outside the Western art tradition, with an emphasis on understanding the music within the context of the culture. Areas of focus include Africa, Latin America, India, Japan,

Native American, Indonesia, China, and others. The course includes the fundamentals of music as paralleled in Northwest Core music classes. Fulfills the Global Experiences component of The Northwest Core Requirements. No prerequisite. (S, SS)

MUS 19298 - Special Topics (1 to 3)

Provides concentrated study in special areas within music. Topics vary trimester to trimester. Pre-requisites as announced. Repeatable with topics changing.

MUS 19299 - Music Recital Attendance (1)

Attendance at recitals and concerts presented by the Department of Music is required of each music major and minor. B.M.E majors must pass 7 trimesters prior to graduation. B.A. majors must pass 8 trimesters prior to graduation. Minors must pass 4 trimesters prior to graduation. (F, S)

MUS 19400 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with a change of topic.

MUS 19419 - Independent Study in Music (1 to 2)

Specialized study in areas such as music history and literature, and theory and composition to be conducted under the direction of a faculty member. Prerequisite: Permission of instructor. May be repeated for a total of four hours with a change in topic and/or new content.

MUS 19498 - Special Topics (1 to 3)

Provides concentrated study in special areas within music. Topics vary trimester to trimester. Pre-requisites as announced. Repeatable with topics changing.

MUS 19499 - Senior Recital and Seminar (1)

The presentation of a public recital as prescribed in the Music Department Student Handbook. Attendance at senior seminar and completion of required portfolio. Prerequisite: Senior standing. (F, S)

MUS 19500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with a change in topic.

Applied Music

Study in applied music is open to all University students contingent upon the availability of faculty, with priority being given first to music majors, second to music minors, third to non-music majors and minors participating in ensembles and fourth to other University students. Such study is offered at three levels: lower level (courses numbered below 300), upper level (courses numbered in the 300s and 400s) and senior/graduate level (courses numbered in the 500s). Instructors may request the Registrar to delete a student from the class roster for failure to schedule a lesson time within the first five days of a trimester and the first three days of a summer session.

Prerequisites: For all levels of applied music, students must have the permission of the instructor and/or the faculty within the area of study. For upper level, a qualifying examination must be passed; for senior/graduate level, a satisfactory senior recital must have been given.

Class Instruction

Applied music with group instruction is available in piano and in voice with enrollment directed by the faculty within the area of study.

MUS 19131 - Class Piano 1 (1)

MUS 19132 - Class Piano 2 (1)

MUS 19151 - Applied Voice Class (1)

MUS 19152 - Applied Voice Class (1)

MUS 19231 - Class Piano 3 (1)

MUS 19232 - Class Piano 4 (1)

Individual Instruction

Students may enroll in one or two hours of private lessons per trimester. Each semester hour credit provides a one-half hour lesson per week. Individual instructors may have additional requirements. These courses may be repeated so that the student can develop sufficient skills and repertoire over the course of their entire program in order to receive a degree. Students must complete a minimum of 8 hours (B.M.E.) to 10 hours (B.A.) in their applied area of concentration while only being able to take 2 to 4 credit hours each year.

MUS 19123 - Applied Trumpet (1 to 2)

MUS 19124 - Applied Horn (1 to 2)

MUS 19125 - Applied Trombone (1 to 2)

MUS 19126 - Applied Baritone (1 to 2)

MUS 19127 - Applied Tuba (1 to 2)

MUS 19128 - Applied Percussion (1 to 2)

MUS 19130 - Applied Piano (1 to 2)

MUS 19135 - Applied Organ (1 to 2)

MUS 19136 - Applied Accompanying (1)

The development of skills in accompanying vocal and instrumental music at the keyboard. May be repeated for credit. This course will count toward keyboard enrollment requirements for music majors. A maximum of two credits may count toward applied keyboard requirements. Prerequisite: Permission of the instructor. (F, S)

MUS 19137 - Applied Harpsichord (1 to 2)

MUS 19145 - Applied Violin (1 or 2)

MUS 19146 - Applied Viola (1 to 2)

MUS 19147 - Applied Cello (1 to 2)

MUS 19148 - Applied String Bass (1 to 2)

MUS 19155 - Applied Voice (1 to 2)

MUS 19164 - Applied Flute (1 to 2)

MUS 19165 - Applied Oboe (1 to 2)

MUS 19166 - Applied Clarinet (1 to 2)

MUS 19167 - Applied Saxophone (1 to 2)

MUS 19168 - Applied Bassoon (1 to 2)

MUS 19323 - Applied Trumpet (1 to 2)

MUS 19324 - Applied Horn (1 to 2)

MUS 19325 - Applied Trombone (1 to 2)

MUS 19326 - Applied Baritone (1 to 2)

MUS 19327 - Applied Tuba (1 to 2)

MUS 19328 - Applied Percussion (1 to 2)

MUS 19330 - Applied Piano (1 to 3)

MUS 19335 - Applied Organ (1 to 2)

MUS 19337 - Applied Harpsichord (1 to 2)

MUS 19345 - Applied Violin (1 or 2)

MUS 19346 - Applied Viola (1 to 2)

MUS 19347 - Applied Cello (1 to 2)

MUS 19348 - Applied String Bass (1 to 2)

MUS 19355 - Applied Voice (1 to 2)

MUS 19364 - Applied Flute (1 to 2)

MUS 19365 - Applied Oboe (1 to 2)

MUS 19366 - Applied Clarinet (1 to 2)

MUS 19367 - Applied Saxophone (1 to 2)

MUS 19368 - Applied Bassoon (1 to 2)

MUS 19520 - Secondary Applied Study (1 to 2)

Students may enroll in one or two hours of private lessons in the areas of vocal, instrumental, composition and keyboard study which are outside the student's primary area of applied accomplishment. Repeatable, with the permission of the instructor. Prerequisite: consent of instructor

MUS 19523 - Applied Trumpet (1 to 2)

MUS 19524 - Applied Horn (1 to 2)

MUS 19525 - Applied Trombone (1 to 2)

MUS 19526 - Applied Baritone (1 to 2)

MUS 19527 - Applied Tuba (1 to 2)

MUS 19528 - Applied Percussion (1 to 2)

MUS 19530 - Applied Piano (1 to 2)

MUS 19535 - Applied Organ (1 to 2)

MUS 19537 - Applied Harpsichord (1 to 2)

MUS 19545 - Applied Violin (1 or 2)

MUS 19546 - Applied Viola (1 to 2)

MUS 19547 - Applied Cello (1 to 2)

MUS 19548 - Applied String Bass (1 to 2)

MUS 19555 - Applied Voice (1 to 2)

MUS 19564 - Applied Flute (1 to 2)

MUS 19565 - Applied Oboe (1 to 2)

MUS 19566 - Applied Clarinet (1 to 2)

MUS 19567 - Applied Saxophone (1 to 2)

MUS 19568 - Applied Bassoon (1 to 2)

Ensembles

Performing ensembles listed below are open to all University students regardless of majors. Some, as noted, do require auditions for participation and credit. All ensemble courses may be repeated for additional credit as per the limitations in individual course descriptions because each term new

literature for that ensemble is studied and ensemble performance skills are improved.

MUS 19110 - Marching Band (1)

Marching activities and performance during the football season. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19111. (F)

MUS 19111 - Marching Band Activity (1)

Marching activities and performance during the football season. Credit cannot be received for this course in the same trimester of enrollment in MUS 19110. (F)

MUS 19112 - University Chorale (1)

Large choir performing a variety of literature including major choral works. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19113. (F, S)

MUS 19113 - University Chorale Activity (1)

Large choir performing a variety of literature including major choral works. Credit cannot be received for this course in the same trimester of enrollment in MUS 19112. (F, S)

MUS 19115 - Symphonic Band (1)

A large concert band with open enrollment performing a variety of music. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19116. (S)

MUS 19116 - Symphonic Band Activity (1)

A large concert band with open enrollment performing a variety of music. Credit cannot be received for this course in the same trimester of enrollment in MUS 19115. (S)

MUS 19118 - Orchestra (1)

A select instrumental group that specializes in performing the repertoire written for orchestra. This performing ensemble is open to all University students regardless of major. All ensembles as courses may be repeated for additional credit. Prerequisite: Audition.

MUS 19119 - Orchestra Activity (1)

A select instrumental group that specializes in performing the repertoire written for orchestra. This performing ensemble is open to all University students regardless of major. Credit cannot be received for this course in the same trimester of enrollment in MUS 19118.

MUS 19203 - Madrigal/Show Choir (1)

Select choral group specializing in madrigal, vocal jazz and swing choir literature. Prerequisite: Audition. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19204. (F, S)

MUS 19204 - Madrigal/Show Choir Activity (1)

Select choral group specializing in madrigal, vocal jazz and swing choir literature. Prerequisite: Audition. Credit cannot be received for this course in the same trimester of enrollment in MUS 19203. (F, S)

MUS 19205 - Jazz Ensemble (1)

Big-band jazz ensemble and may include vocalists. Prerequisite: Audition. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19206. (F, S)

MUS 19206 - Jazz Ensemble Activity (1)

Big-band jazz ensemble and may include vocalists. Prerequisite: Audition. Credit cannot be received for this course in the same trimester of enrollment in MUS 19205. (F, S)

MUS 19207 - Tower Choir (1)

Select choral ensemble. Prerequisite: Audition. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19208. (F, S)

MUS 19208 - Tower Choir Activity (1)

Select choral ensemble. Prerequisite: Audition. Credit cannot be received for this course in the same trimester of enrollment in MUS 19207. (F, S)

MUS 19209 - Wind Symphony (1)

A select instrumental group that specializes in performing the repertoire written for the large and small instrumental combinations, including concert band music. Prerequisite: Audition. May be taken as many as four times for academic credit. Credit cannot be received for this course in the same trimester of enrollment in MUS 19210. (F, S)

MUS 19210 - Wind Symphony Activity (1)

A select instrumental group that specializes in performing the repertoire written for the large and small instrumental combinations, including concert band music. Prerequisite:

Audition. Credit cannot be received for this course in the same trimester of enrollment in MUS 19209. (F, S)

MUS 19212 - Brass Ensemble Activity (1)

A variety of brass ensembles of varying sizes and instrument combinations. Prerequisite: Permission of instructor. (F, S)

MUS 19214 - Woodwind Ensemble Activity (1)

A variety of woodwind ensembles of varying sizes and instrument combinations including such groups as flute choir, woodwind quintet and clarinet choir. Prerequisite: Permission of instructor. (F, S)

MUS 19215 - Jazz Combo Activity (1)

This course is designed to provide the student with a small ensemble to learn and use the concepts of Jazz Improvisation and to learn to perform in a small group setting in order to express themselves musically through the jazz idiom. Prerequisite: Permission of instructor (F, S)

MUS 19218 - Small Vocal Ensembles (1)

Small choral group performing a variety of literature. Prerequisite: Permission of instructor. (F, S)

MUS 19219 - Percussion Ensemble Activity (1)

A variety of percussion ensembles of varying sizes and instrument combinations. Prerequisite: Permission of instructor. (F, S)

Literature and History

MUS 19385 - Music Literature: Antiquity through Renaissance (BC-1600) (3)

Survey of the development of Western music from the time of the ancient Greeks through the Renaissance, with emphasis on development of listening skills. Prerequisite: Junior standing or above, plus ENGL 10111 and ENGL 10112 (or ENGL 10115) and the Fine Arts Northwest Core option (pref. MUS 19201). Exceptions by permission of the instructor. (F)

MUS 19386 - Music Literature: Baroque through Classical (3)

Survey of the development of Western music from the Baroque and Classical eras, with continued emphasis on development of listening skills. Prerequisite: JR standing or above, plus ENGL 10111 and ENGL 10112 (or ENGL 10115) and the Fine Arts Northwest

Core option (pref. MUS 19201). Exceptions by permission of the instructor. (S)

MUS 19387 - Music Literature: Romantic through the Present (3)

A survey of the development of Western music from the Romantic period to the present with continued emphasis on the development of listening skills. Prerequisite: MUS 19385 or MUS 19386, or MUS 19201 for non-majors. (F)

Methods and Materials

MUS 19220 - Brass Methods I (1)

Development of the basic skills and techniques of brass instrument performance and pedagogy. (F, odd years)

MUS 19221 - Percussion Methods I (1)

Development of basic skills and techniques of playing and teaching percussion with an emphasis on unpitched instruments. (F, odd years)

MUS 19223 - Brass Methods II (1)

Development of intermediate skills and techniques of brass instrument performance and pedagogy. (S, even years)

MUS 19224 - Percussion Methods II (1)

Development of basic skills and techniques of playing and teaching percussion with an emphasis on pitched instruments. (S, even years)

MUS 19240 - String Methods I (1)

Development of the basic skills and techniques of playing and teaching orchestral string instruments. (F, even years)

MUS 19241 - String Methods II (1)

Development of the intermediate skills and techniques of playing and teaching orchestral string instruments. (S, odd years)

MUS 19250 - Vocal Methods (2)

A study of the basic principles of voice production: quality, diction, range, breathing, vocalization, dynamics, agility and vocal hygiene as a basis for an approach to vocal teaching. Students will also learn the International Phonetic Alphabet (IPA) and its application to the English, Italian, German and French languages. (S)

MUS 19260 - Woodwind Methods I (1)

The introduction and development of the basic skills needed to teach beginning

woodwind students on Clarinet and Saxophone. These skills include performance, pedagogy, and instrument care. (S, odd years)

MUS 19261 - Woodwind Methods II (1)

The introduction and development of the basic skills needed to teach flute and double reed students. These skills include performance, pedagogy, and instrument care. (S, odd years)

MUS 19270 - Instrumental Methods for Non-Instrumental Majors (2)

Development of functional ability in wind, string, brass and percussion instruments. Instrumental music majors may not receive credit for this course. (S)

MUS 19380 - Music in the Elementary School (2)

Current concepts of music learning procedures and materials for the elementary classroom. Elements of music are presented with concrete experiences to explore appropriate methods and materials. Music majors cannot receive credit for this course. Prerequisite: MUS 19201, MUS 19202, MUS 19222, or ART 13102. (F, S, SS)

MUS 19391 - Elements of Conducting (2)

Baton technique and the elements of interpretation in conducting choral and instrumental groups. (F)

MUS 19402 - Music Practicum (1)

Supervised classroom/rehearsal observation and teaching in various music activities. Enrollment by faculty selection. May be repeated with a change in topic and/or new content but only two hours may count as an elective toward an undergraduate degree.

MUS 19420 - Choral Conducting (2)

A refinement and augmentation of the choral foundation provided in MUS 19391. Prerequisite: MUS 19391. (S)

MUS 19421 - Instrumental Conducting (2)

A refinement and augmentation of the foundation provided in MUS 19391, with specific attention to instrumental (orchestra and band) conducting. Prerequisite: MUS 19391. (S)

MUS 19481 - Methods in Elementary School Music (2)

A study of methods and materials for music in the elementary school. Music majors or minors only. Prerequisite: MUS 19180. (S)

MUS 19482 - Methods in Secondary School Instrumental Music (2)

Problems peculiar to the junior and senior high school band. Analysis of materials and methods including instructional observation. Music majors only. Prerequisites: Passing of piano proficiency and admission to teacher education. Meets requirements for special secondary methods in education sequence. (F)

MUS 19484 - Methods in Secondary School Vocal Music (2)

Problems peculiar to junior and senior high school choral programs. Analysis of materials and methods including instructional observation. Music majors only. Prerequisite: Passing of piano proficiency examination and admission to teacher education. Meets requirements for special secondary methods in education sequence. (F)

MUS 19501 - Elementary Music Education: Special Topics (1 to 3)

A study of selected materials and/or methods for music instruction in the elementary school with particular attention being given to recent developments and current issues. Repeatable for additional experience, new material, and progression of study.

MUS 19502 - Junior High Music Education: Special Topics (1 to 3)

A study of selected methods and/or materials for music instruction in the junior high or middle school with particular attention being given to recent developments and current issues. Repeatable for additional experience, new material and progression of study. (SS)

MUS 19503 - Senior High Music Education: Special Topics (1 to 3)

A study of selected materials and/or methods for music instruction in the senior high school with particular attention being given to recent developments and current issues. Repeatable for additional experience, new material, and progression of study.

MUS 19551 - Principles of Singing (2)

Exploration of historical and contemporary theories of vocal pedagogy, including practical application and examination of current sources on related topics, such as interpretation and vocal diction.

MUS 19582 - Advanced Instrumental Conducting (2)

An application of conducting practices in interpretation, style, and performance through the study of representative works for concert band, wind ensemble, and orchestra. Prerequisite: Admittance to Teacher Education.

MUS 19583 - Advanced Choral Conducting (2)

Study of representative large works through conducting practices in interpretation, style, and performance.

MUS 19587 - Literature for Elementary and Middle Schools (2)

A study of current course materials and methods for elementary and middle school music classrooms.

MUS 19590 - Early Childhood Music (2)

Designed to assist the early childhood teacher in developing techniques for teaching music in pre-school and early elementary levels.

MUS 19591 - Marching Band Techniques (2)

A study of the fundamentals of marching maneuvers, parade routines, computer-assisted drill design, and the administration and organization of a successful marching band program.

MUS 19592 - General Music Methods (2)

A study of the materials and methods for teaching general music in middle school through high school.

MUS 19593 - Choral Literature for Secondary Schools (2)

A survey of choral literature including the music of all periods, both sacred and secular, and a study of the style and interpretation of music from each period.

MUS 19594 - Instrumental Literature for Secondary Schools (2)

A historical and stylistic survey of music for the wind band with particular emphasis on compositions appropriate for secondary school ensembles.

MUS 19595 - Contemporary Issues in Instrumental Music (2)

A study of current trends, standards, materials and practices in administering,

organizing and maintaining a successful instrumental music program. (S)

MUS 19596 - Contemporary Issues in Vocal Music (2)

Current practices in administration and organization of school vocal programs. (S)

MUS 19597 - Comparative Methods in Elementary Music (2)

A survey of today's methods (Orff, Kodaly, Dalcroze, Gordon, ETM, etc.) for teaching music in the elementary school.

Theory**MUS 19103 - Foundations of Music Theory (2)**

An introduction to traditional pitch and rhythmic notation as well as the study of basic materials such as tempo, meter, key signatures, intervals, scales and simple triad spellings. This course does not satisfy The Northwest Core requirement in Fine Arts nor count as a music elective toward any major or minor in the Department of Music. (F)

MUS 19171 - Beginning Sight Singing and Ear Training (1)

Development of skills in dictation, sight singing, notation and the aural comprehension of music. Prerequisite: MUS 19103 or score of 70 on Theory Placement Examination. (S)

MUS 19172 - Intermediate Sight Singing and Ear Training (1)

A continuation of MUS 19171 including chromatic relationships, more difficult rhythmic grouping and two-part music. Prerequisite: MUS 19171. (F)

MUS 19173 - Theory of Music (3)

An intensive course in the fundamentals of music including scales, modes, intervals, tonality and the four types of triads. Prerequisite: MUS 19103 or score of 70 on Theory Placement Examination. (S)

MUS 19174 - Theory of Music (3)

Introduction to harmony and part-writing, figured bass, the principal triads in root position and the dominant seventh in root position. Prerequisite: MUS 19173. (F)

MUS 19271 - Advanced Sight Singing and Ear Training I (1)

A continuation of MUS 19172 including more difficult intervallic, melodic, harmonic and rhythmic problems. Prerequisite: MUS 19172. (S)

MUS 19272 - Advanced Sight Singing and Ear Training II (1)

A continuation of MUS 19271 progressing to the most difficult intervallic, melodic, harmonic and rhythmic problems. Prerequisite: MUS 19271. (F)

MUS 19273 - Theory of Music (3)

A continuation of MUS 19174 including figured bass, triads, and seventh chords in all inversions, nonharmonic tones, secondary dominants and secondary leading tone chords and the neapolitan sixth chord. Prerequisite: MUS 19174. (S)

MUS 19274 - Theory of Music (3)

Completion of the study of harmony including advanced progression, enharmonic modulations and augmented sixth chords. Study of late romantic trends and impressionism. Introduction to dodecaphonic techniques. Prerequisite: MUS 19273. (F)

MUS 19472 - Musical Form and Analysis (2)

Analytical study of the musical forms employed in the vocal and instrumental compositions of Bach, Mozart, Beethoven, Wagner and other master composers. Prerequisite: MUS 19274. (F)

MUS 19493 - Choral Composition and Arranging (2)

Principles and practices of composing and arranging for choirs and small vocal ensembles. Prerequisites: MUS 19272 and MUS 19274. (S)

MUS 19494 - Instrumental Composition and Arranging (2)

Principles and practices of composing and arranging for school orchestras, bands, and other instrumental ensembles. Prerequisites: MUS 19173, MUS 19174, MUS 19273, and two of the following: MUS 19220, MUS 19221, MUS 19240, MUS 19260. (S)

NANO - Nanoscale Science

NANO 48314 - Nanoscale Science I (4)

A course dedicated to the interface of chemistry and physics at the nanometer scale. Topics will focus on the relationship

between nanoscale structure and macroscopic properties, nanoscale instrumentation and characterization, creation of materials and devices, and the role and perception of nanotechnology in society. The course consists of four hours of lecture and hands-on studio activities per week. Prerequisites: MATH 17120, MATH 17121, CHEM 24114 and CHEM 24115, CHEM 24116 and CHEM 24117, PHYS 25120 and PHYS 25121, PHYS 25230 and PHYS 25231, CHEM 24342, and junior standing (F, even years)

NANO 48315 - Nanoscale Science II (4)

A course dedicated to the interface of biology and physics at the nanometer scale. Topics will focus on the application of physical concepts to biological systems in the developing field of nanobiotechnology. Prerequisites: MATH 17120, BIOL 04112 and BIOL 04113, BIOL 04350, PHYS 25120 and PHYS 25121, PHYS 25230 and PHYS 25231, and junior standing. (S, odd years)

NUTR - Foods and Nutrition

NUTR 47230 - Food Science (4)

A laboratory course with emphasis on the study of scientific principles of food preparation and on criteria for recognition and evaluation of standard products. Two hours of lecture and 4 hours of lab per week.

NUTR 47232 - Food Service Management (3)

An introductory food service course emphasizing food service sanitation and requiring application of principles of food buying and food preparation to menu planning, meal preparation and service. Three hours lecture and one hour lab per week. Prerequisite: NUTR 47230 or by permission.

NUTR 47234 - Nutrition and Diet Behavior (2)

An entry-level nutrition course which provides basic nutrition information. Coursework will include a self-assessment of nutrient intake utilizing computer analysis. (F, S)

NUTR 47240 - Introduction to Dietetics (2)

Exploration of the dietetics profession. Introduces the professional organization and structure. Covers credentialing and the Academy of Nutrition and Dietetics Code of Ethics, scope of dietetics practice, Northwest dietetics handbook and requirements to obtain verification statement. Clarifying the

roles and requirements of different nutrition professionals and the interdisciplinary relationships in various practice settings. (S)

NUTR 47332 - Quantity Food Preparation (2)

A lecture course in basic quantity food preparation with emphasis on principles of preparation, identification of quality products, standardized recipes, safety and sanitation, care and supervision of food service equipment, organization of work space, work simplification and preparation of food. Prerequisite: NUTR 47232 Food Service Management. (F, even years)

NUTR 47333 - Quantity Food Preparation Laboratory (2)

Provides laboratory experience in quantity food preparation. Four hours of lab per week. (F, even years)

NUTR 47334 - Lifespan Nutrition (3)

Fundamentals of nutrition care delivery in community programs. This course explores nutrition programs that serve various segments of the population and the relationship of these programs to nutrition policy at the local, national and international levels. The specific needs of population groups (infants, children, women and the elderly) are considered and questions of food security are investigated. Students plan and execute a social marketing project and experiences in community nutrition programs will be required. Three hours lecture and two hours lab per week. Prerequisite: NUTR 47234 Nutrition and Diet Behavior.

NUTR 47335 - Community Nutrition (3)

Fundamentals of nutrition care delivery in community programs. This course explores nutrition programs that serve various segments of the population and the relationships of these programs to nutrition policy at the local, national, and international levels. The specific needs of population groups (infants, children, women, and the elderly) are considered and questions of food security are investigated. Students will plan and execute a social marketing project and experiences in community nutrition programs will be required. Prerequisites: NUTR 47234.

NUTR 47338 - Practicum in Dietetics (1 to 3)

Supervised experience in various types of commercial food services such as short

order, carry-out service, tray service in rest home and hospitals, cafeterias, restaurants, and catering services. A job analysis will be an integral part of the work experience. Prerequisites: NUTR 47230 and NUTR 47232.

NUTR 47431 - Macronutrients (3)

Physiological and chemical basis for the macronutrient and food needs of the individual and the application of basic principles to problems of meeting the macronutrient needs of the individual. Prerequisites: CHEM 24242 and CHEM 24243.

NUTR 47432 - Micronutrients (3)

Physiological and chemical basis for the micronutrient and food needs of the individual, and the application of basic principles of meeting the micronutrient needs of the individual. Prerequisites: CHEM 24242 and CHEM 24243, CHEM 24362 and CHEM 24363.

NUTR 47433 - Medical Nutrition Therapy I (4)

This course is designed to develop skills in the use of clinical nutrition in the prevention and treatment of diet-related health problems. This course includes the assessment of nutritional status of individuals, and medical nutrition therapy for various disease states such as disorders of the upper and lower GI, CVD, Hypertension, Type 2 Diabetes, nutritional concerns during and after pregnancy, complete overview of nutritional support (enteral and parenteral nutrition and tube feeding), weight management, disordered eating. This course will also allow the student to grow in their ability to use the Nutrition Care Process, ADIME and SOAP charting. Prerequisites: NUTR 47234.

NUTR 47434 - Medical Nutrition Therapy II (4)

The science of nutrition as it applies to individuals with atypical metabolic conditions and/or pathological conditions. Students apply the biochemical, physiological, and nutritional basis of medical nutrition therapy concepts through completion of case studies, product analyses, and calculations for enteral and parenteral nutrition support. Four hours lecture and two hours lab per week. Prerequisites: NUTR 47234 and NUTR 47433.

NUTR 47435 - Pharmacology for the Dietitian (3)

This course focuses on the drug and nutrient interactions of common medications. Basic pharmacology concepts, nutrition and metabolism, drug interactions in nutrition support, dietary counseling to prevent food-drug interactions, and the role of ergogenic aids in sports nutrition will all be covered. This course is designed for dietitians. Prerequisite: NUTR 47433.

NUTR 47436 - Medical Nutrition Counseling (3)

The basic theories and techniques of counseling as related to medical nutrition therapy. Students will counsel individuals on nutrition. Prerequisite: NUTR 47432.

NUTR 47438 - Problems in Nutrition (1 to 3)

Opportunity to investigate, with instructor's guidance, a problem identified in consultation with advisor. Available to second trimester juniors and seniors with a 2.70 or above GPA who have completed course offerings in this area.

NUTR 47439 - Field Experience in Food Service Management (1 to 6)

Advanced work assignments in food service management in business of student's choice. By permission of instructor.

NUTR 47440 - Senior Seminar in Dietetics (2)

Procedures and application process for obtaining an internship and professional status through dietetic registration and licensure. Professional ethics and legal responsibilities. Strategies for integration of current issues into dietetic practice. Prerequisite: admission to the Dietetics Program. Course must be taken the last fall trimester before expected graduation. (F)

PHIL - Philosophy

PHIL 39171 - Introduction to Philosophy (3)

Basic problems and ideas encountered in the moral and intellectual life of humankind are analyzed in a systematic, rather than an historical, manner. Attention is devoted to the philosophies and theories of knowledge, metaphysics, religion, morals, politics and science. (F, S, SS)

PHIL 39273 - Logic (3)

A consideration of the principal techniques of traditional and symbolic logic-syllogistic logic, sentential logic, and predicate logic-and their relationship to language. (F, alt. years)

PHIL 39274 - Historical Ethics (3)

An examination of the fundamental concepts, principles and major theoretical approaches of ethics used to determine the moral demands of human conduct with applications to important ethical questions of contemporary interests. This course takes a historical/theoretical approach to ethics. (S, alt. years; SS alt. years)

PHIL 39275 - Professional Ethics (3)

An examination of the fundamental concepts, principles and major theoretical approaches of ethics used to determine the moral demands of human conduct with applications to ethical questions of contemporary interests. This course focuses on professional ethics. (F, S)

PHIL 39276 - Bio-Medical Ethics (3)

An examination of the fundamental concepts, principles and major theoretical approaches of ethics used to determine the moral demands of human conduct with applications to ethical questions of contemporary interests. This course focuses on Bio-Medical Ethics. (F, S)

PHIL 39374 - Philosophy of Religion (3)

Philosophical inquiry into the nature and function of religion with special emphasis on the problems of the existence and essence of deity. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39376 - History of Ancient and Medieval Philosophy (3)

A survey of the main strands of Western philosophy from the beginnings in Ancient Greece and Rome to the dawn of the Modern era. Prerequisite: PHIL 39171 or consent of instructor. (F, alt. years)

PHIL 39377 - History of Modern and Contemporary Philosophy (3)

A survey of the main strands of Western philosophy from the rise of Modernism to the present day. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39401 - Senior Seminar (1)

Intensive study of a philosophical issue of the student's choice, in consultation with a faculty advisor, concluding with a research paper and a formal presentation. Prerequisites: PHIL 39171 and majors with 21 hours in philosophy. (F, S.)

PHIL 39473 - Philosophical Anthropology (3)

A study of various philosophical understandings of the nature and functioning of the human mind and their implications. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39474 - Philosophy of the Sciences (3)

An introduction to the fundamental concepts, methods, and models of science, and how they shape the content of the various scientific disciplines. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39475 - Aesthetics (3)

A consideration of the major concepts and theories of aesthetics, dealing with questions concerning the value of art, the nature of artistic creation and the appropriate criteria for the evaluation of artistic works. Prerequisite: PHIL 39171 or consent of instructor. (F, alt. years)

PHIL 39500 - Special Offering (1 to 3)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for new topics.

PHIL 39570 - Metaphysics (3)

A study of the nature of reality, including a consideration of questions concerning what constitutes the unity of a thing, the nature of causation, the relationship between mind and matter and the nature of God. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39571 - Epistemology (3)

An inquiry into the nature and function of knowledge claims, the validity of induction and deduction, theories of justification and truth. Prerequisite: PHIL 39171 or consent of instructor. (S, alt. years)

PHIL 39579 - Independent Study in Philosophy (1 to 3)

Investigation into special problems in philosophy. Offered only by special arrangement. For majors and minors only. Repeatable for new topics. Prerequisite: PHIL 39171.

PHIL 39590 - Advanced Topics (1 to 3)

This course covers a specialized topic in the history of philosophy or current issues and trends in philosophy as announced. Course may be repeated for a total of six hours provided that the topics are not the same. Prerequisites: PHIL 39171 and 15 hours in philosophy or consent of instructor.

PHSC - Physical Science**PHSC 40102 - The Physical Sciences (3)**

This is an introductory course that uses an inquiry approach to help students gain an understanding of the scientific process and how science relates to the real world. This is accomplished through the study of selected topics from the field of physics and chemistry. Students will be asked to use problem solving and higher order thinking skills in order to apply the concepts they have learned. A knowledge of and the ability to use simple algebra is necessary. This course is primarily designed to meet elementary and middle school teacher certification content, but it will also satisfy the physical science general education requirement. Students who already have college credit in physics are not eligible to enroll in this course. Three hours of lecture and discussion per week. Must be taken concurrently with PHSC 40103. (F,S,SS)

PHSC 40103 - Physical Science Laboratory (1)

A laboratory course which must be taken concurrently with PHSC 40102. Two hours per week. (F, S, SS)

PHSC 40106 - Computational Methods in Science (3)

Methods used in the computational analysis, interpretation, and presentation of data generated from scientific inquiry. Topics covered will encompass, but will not be limited to, spreadsheets, graphical, and statistical analysis of data, concept mapping, use of databases, scientific writing, and symbolic calculation techniques. Recommend 2 years of High School Algebra or competence through College Algebra (MATH 17118). (S, SS)

PHSC 40122 - Descriptive Astronomy (3)

This is an introductory course in astronomy. Topics covered involve the descriptive study of the physical universe including the earth-moon system, the solar system, general stellar system, stellar structure and evolution, galactic systems and cosmological models. The laboratory work emphasizes

basic techniques and instruments used in observational astronomy. Three hours of lecture per week. Must be taken concurrently with PHSC 40123. (F, S)

PHSC 40123 - Descriptive Astronomy Laboratory (1)

This laboratory meets two hours each week and must be taken concurrently with PHSC 40122. (F, S)

PHSC 40200 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

PHSC 40299 - Independent Study in the Physical Sciences (1 to 2)

Independent study in areas of physical sciences not covered in the introductory courses. May be elected successively in one or two hours credit per trimester to a maximum credit of four hours. Can be repeated for new topics. Prerequisites: Introductory course in physical science and permission of instructor. (F, S)

PHSC 40389 - Practicum in Physical Science (1 to 2)

This practicum provides students with experience in assisting faculty members with instruction of physical science in classes and laboratories. Can be repeated for additional mastery. Prerequisite: Permission of instructor. (F, S)

PHSC 40400 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

PHSC 40500 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

PHYS - Physics

PHYS 25110 - General Physics I (3)

This is a laboratory course in general physics designed to provide the necessary background in physics to fill Northwest Core requirements and to fill general physics needs for pre-professional programs. Major topics covered are structure and properties of matter, motion, mechanics, work, energy, momentum, elasticity, waves, temperature and heat. Three hours of lecture and discussion each week. Prerequisite: MATH 17117, or MATH 17118, or MATH 17119, or MATH 17120 or permission of instructor. (F, SS)

PHYS 25111 - General Physics I Laboratory (1)

This laboratory meets two hours each week and must be taken concurrently with PHYS 25110. (F, SS)

PHYS 25112 - General Physics II (3)

This is a continuation of PHYS 25110. Major topics covered are electricity, electronics, optics, radioactivity, and atomic and nuclear structure. Three hours of lecture and discussion each week. Prerequisite: MATH 17117 or MATH 17118 or MATH 17119 or MATH 17120 or permission of instructor. (S, SS)

PHYS 25113 - General Physics II Laboratory (1)

This laboratory meets a minimum of two hours each week and must be taken concurrently with PHYS 25112. (S, SS)

PHYS 25120 - Fundamentals of Classical Physics I (4)

An introduction to classical kinematics, mechanics gravitation, energy, momentum, waves, heat and thermodynamics. Recommended for majors in science, mathematics and engineering. Four hours of lecture and discussion per week. Prerequisite: MATH 17120 or concurrently. (F)

PHYS 25121 - Fundamentals of Classical Physics I Laboratory (1)

The laboratory meets a minimum of two hours each week and must be taken concurrently with PHYS 25120. (F)

PHYS 25200 - Special Offering (1 to 4)

PHYS 25211 - Special Topics in Physics (1 to 3)

An in-depth study of special physics topics. Can be repeated with different topics.

PHYS 25230 - Fundamentals of Classical Physics II (4)

A continuation of PHYS 25120. Major topics include classical electricity, magnetism, electromagnetic waves, light and geometrical and physical optics. Four hours of lecture and discussion each week. Prerequisites: PHYS 25120 and PHYS 25121, MATH 17121 or concurrently. (S)

PHYS 25231 - Fundamentals of Classical Physics II Laboratory (1)

This laboratory meets two hours each week and must be taken concurrently with PHYS 25230. (S)

PHYS 25320 - Classical Mechanics I (3)

An introduction to classical mechanics. General topics include elements of Newtonian mechanics, motion of a particle in one dimension, motion of a particle in two and three dimensions, the motion of a system of particles, rigid bodies and gravitation. Three hours of lecture and discussion each week. Prerequisites: PHYS 25120 and PHYS 25121, MATH 17121 or concurrently.

PHYS 25321 - Classical Mechanics I Laboratory (1)

This computer laboratory meets for a minimum of two hours each week. It is an introduction to computational methods as applied to solving differential and integral equations in mechanics. Prerequisites: PHYS 25120 and PHYS 25121, MATH 17121, or concurrently.

PHYS 25322 - Statics (3)

Analysis of two- and three-dimensional force systems. Application of equilibrium principles to simple trusses, frames and machines. Additional topics chosen from distributed forces, centroids, friction and virtual work. Prerequisites: PHYS 25120 and PHYS 25121, MATH 17121 or concurrently.

PHYS 25330 - Electricity and Magnetism I (3)

Classical electricity and magnetism including Coulomb's law, Gauss' law, Poisson's equation, charge-field potential differential and integral relationships, Biot-Savart law, Ampere's law, Lenz's law and vector properties of electric and magnetic fields. Three hours of lecture and discussion per week. Prerequisites: PHYS 25230 and PHYS 25231, MATH 17321.

PHYS 25331 - Electricity and Magnetism I Laboratory (1)

This laboratory meets a minimum of two hours each week and must be taken concurrently with PHYS 25330. (F, even years)

PHYS 25332 - Electronics (3)

A study of the theory and applications of analog and digital electronics. Topics include transistors, operational amplifiers, TTL and CMOS logic gates and applications of these devices in various electronic circuits. Three hours of lecture and discussion each week. Prerequisite: PHYS 25230 and PHYS 25231. (F, odd years)

PHYS 25333 - Electronics Laboratory (1)

This laboratory meets a minimum of two hours each week and must be taken concurrently with PHYS 25332. (F, odd years)

PHYS 25350 - Introduction to Modern Physics (3)

An introduction to the subjects of photoelectricity, relativity, quantum theory, X-rays, radioactivity, nuclear physics and cosmic radiation. Three hours of lecture and discussion each week. Prerequisites: PHYS 25230 and PHYS 25231. (F, odd years)

PHYS 25351 - Introduction to Modern Physics Laboratory (1)

This laboratory meets a minimum of two hours each week and must be taken concurrently with PHYS 25350. (F, odd years)

PHYS 25352 - Modern Physics II (3)

A continuation of PHYS 25350. Major topics covered are statistical physics, molecular structure, solid state physics and astrophysics. Three hours of lecture and discussion each week. Prerequisites: PHYS 25350 and PHYS 25351. (S, even years)

PHYS 25360 - Quantum Mechanics (3)

The philosophy and methods of selected topics from quantum mechanics. Topics include Schrodinger's equation, simple barrier problems, angular momentum, linear oscillator, hydrogen atom and elementary perturbation. Prerequisites: PHYS 25350 and PHYS 25351 or CHEM 24532 and CHEM 24533, MATH 17321 or concurrently.

PHYS 25400 - Special Offering (1 to 4)

This is a special, one-time offering. Topics include areas of physics not covered in regular courses. Repeatable for additional experience, new material and progression of study.

PHYS 25430 - Optics (3)

A study of modern optics, including reflection, refraction, interference, diffraction, polarization, lasers, holography, non-linear optics, optical detectors and modern applications. Three hours of lecture and discussion each week. Prerequisite: MATH 17121.

PHYS 25431 - Optics Laboratory (1)

Laboratory meets at least two hours each week and must be taken concurrently with PHYS 25430. (F, even years)

PHYS 25450 - Computational Physics (3)

Introduction to computational methods used to solve problems in physics. Numerical techniques for the analysis of experimental data and the solution of ordinary and partial differential equations will be studied. These numerical methods will be applied to the solution of a variety of problems that arise in classical physics. Visualization and simulation techniques will be studied and the power of these methods to enhance physical understanding will be emphasized. Prerequisites: PHYS 25230 and PHYS 25231 and CSIS 44141 (S, odd years)

PHYS 25451 - Computational Physics Laboratory (1)

Laboratory meets at least two hours each week and must be taken concurrently with PHYS 25450. (S, odd years)

PHYS 25479 - Undergraduate Research (1 to 3)

An independent research project done under supervision of a faculty member. The results of the research project are to be summarized in a paper or presentation at the discretion of the faculty member. Can be repeated for new experience. Prerequisite: Permission of instructor. (F, S, SS)

PHYS 25489 - Physics Practicum (1 to 2)

This practicum provides physics majors with experience in using, repairing and building equipment as well as experience in assisting physics faculty in instruction in classes and laboratories. Permission of instructor necessary. Physics minors only. (F, S)

PHYS 25499 - Special Investigations in Physics (1 to 3)

Special projects and special experiments in physics which are not included in the regular courses. May be elected successively in one or more hours of credit per trimester. Can be repeated for new experience. Permission of instructor necessary. (F, S)

PHYS 25500 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

PHYS 25599 - Selected Advanced Topics (1 to 4)

Special investigations of experimental or theoretical areas which are not included in the regular courses. May be elected in successive trimesters. Can be repeated with

different topics. Prerequisite: Permission of instructor. (F, S, SS)

POLS - Political Science**POLS 34102 - Introduction to American Government and Politics (3)**

Attention is directed toward the fundamental principles, institutions, and problems of American Constitutional Government-national, state, and local. Particular stress is given to the Missouri Constitution, as well as to national Constitutional growth. (F, S, SS)

POLS 34105 - The African World (3)

An introduction into Africa's rich histories and cultures, as well as its complex social, economic and political realities. (F, alt. years)

POLS 34201 - Missouri Politics (1)

The provisions and principles of the Constitution of the State of Missouri will be examined. (F, S)

POLS 34205 - Introduction to Criminal Justice (3)

A study of the agencies and processes involved in the criminal justice system: legislature, the police, the prosecutor, the public defender, the courts and corrections. (F)

POLS 34210 - Exploring Politics (3)

An introduction to the many facets of political science: the study of governments, public policies and political processes, systems, and political behavior. Discover how political scientists use humanistic and scientific perspectives, various tools, and a variety of methodological approaches to understand the world, from the local to the global. Gain an appreciation of how the discipline's skills can be instrumental in a wide range of professional and intellectual opportunities.

POLS 34215 - Introduction to Political Theory (3)

This course provides students with an introduction to political thought. As it is introductory, the course spans two millennia of western political thought from the ancient Greeks to the British Moderns. The course will discuss the varied conceptions of justice, human nature, and the good throughout this period of time. It will then relate those conceptions to the political theories that emerged from them. (F)

POLS 34301 - Parties and Interest Groups (3)

This course will examine, compare and contrast the development, organization and function of both political parties and interest groups in American politics within the context of elections at all levels of government. (S)

POLS 34302 - The American Presidency (3)

This course will encompass the political, legal, organizational and policy-making aspects of the American presidency. (S)

POLS 34303 - The American Congress (3)

This course will examine the political and institutional development of Congress. The study will span both the formal legal powers and the internal dynamics of this major national policy-making institution. (F)

POLS 34305 - Global Events and Trends (3)

This course is structured to give students a better understanding of global events and trends. Among other topics, the course addresses the illicit trade in people, guns and drugs, the political economy of religions, and the politics surrounding emerging technologies. Course topics change from semester to semester, depending on what is happening in the world. (F)

POLS 34310 - Comparative Government (3)

A study of the various types of political and governmental structures operative in the contemporary world as well as the various types of political functions performed within national systems. Emphasis is placed on the comparative study of national political systems. (F)

POLS 34311 - Practicum in Political Science (1 to 2)

A course designed to provide structure and academic focus to non-traditional work by students within the curricular structure of the department. Activities given credit under this course must be relevant to the student course of study, approved by the chairperson and mentored by a faculty member. A student may accumulate no more than two hours of credit for this course. Repeatable for new experiences.

POLS 34315 - Juvenile Justice System in America (3)

An investigation of the American criminal justice system's response to socially dysfunctional youth: prevention, diversion,

law enforcement, the courts, probation, parole, schools, correctional institutions and alternative placement. (S)

POLS 34320 - Politics and Propaganda in Film (3)

This course is an investigation into the definition and use of film as a means of communicating political ideas and spreading political propaganda. Feature movies, cartoon, documentaries, and television programming is examined for varied themes used as political communication in both domestic and international contexts. The course also studies the environment within which the movies were made and the techniques used by the moviemakers that enhance their message.

POLS 34321 - American Federalism (3)

This course is an investigation and analysis of the American federal system, including its constitutional, political, and administrative characteristics. An integral portion of the course is a study of the subnational governments - state, city and county - that help to comprise the federal system. (F, S)

POLS 34332 - Principles of Public Administration (3)

A study of decision-making processes in public organizations. (F)

POLS 34338 - Rights of the Accused (3)

Examines the American judicial system as applied to individuals accused of crimes against the state. (F)

POLS 34340 - Law and Politics (3)

An introduction to the American legal system, its functions, constituting elements, and role in our democratic system. (F)

POLS 34363 - Crime and Punishment (3)

This comparative course reviews the evolution of government policy and law towards the criminalization of societal acts and behaviors and the associated punishments applied throughout human history. Special attention will be paid to the evolution of practices in Western society, including England, France, and the United States. Prerequisite: POLS 34102 and POLS 34205. (S, alt. years and SS, alt. years)

POLS 34364 - Criminal Law and Procedure (3)

A study of the statutes, administrative rules and judicial processes that frame the criminal

justice system, with particular focus on the State of Missouri. The course will cover substantive criminal law, processing of the accused, and the unique characteristics of juvenile proceedings. Prerequisites: POLS 34205 and POLS 34315. (S, alt. years)

POLS 34365 - Africa in Popular Media (3)

How do media reflect and shape realities, impressions and imagery of Africa? The course uses audio, visual and print media from within and outside the continent to explore this question. (S)

POLS 34366 - Crime and Security Issues (3)

This course examines the relationship between criminal activities and their effects on American national security concerns. Emphasis in the class will cover a different theme each semester. Themes will include cybercrime, drug enforcement, immigration, and espionage. Prerequisites: POLS 34102 and POLS 34205. (S, alt. years)

POLS 34401 - News Media and Politics (3)

An examination of the theories and studies of how public opinion is formed, measured and related to the behavior of public officials. The final third of the course focuses on the politics of the relations between public officials and journalists during the news-gathering process. (F)

POLS 34421 - International Conflict Resolution (3)

This course focuses on the principles of international relations, illustrated through the use of international conflict resolution. (S)

POLS 34435 - Public Management (3)

An emphasis on public policy in terms of personnel and budget administration. This course is divided into two distinct but complimentary parts. The first part of the course will focus on personnel administration in the public sector, while the second part of the course will focus on government budgeting. Case studies and exercises will be used in both parts of the course in order to gain an understanding of the key principles, concepts and methods associated with both of these areas of government. (S, alt. years)

POLS 34436 - Constitutional Law (3)

Examines the Supreme Court's role in dealing with basic problems of constitutional law. Topics covered include the powers of the three branches of the national government,

federal-state power relations, Congressional power over commerce, equal protection of the laws, and the conduct of elections. (F)

POLS 34438 - Civil Liberties (3)

Investigates the legal and political context influencing the exercise of fundamental rights. It is a study of the lines that must be drawn by a democratic society as it attempts to reconcile individual freedom with the rights of the community. In so doing it examines the way in which the U.S. Constitution, as judicially interpreted, has shaped the American concepts of civil liberties (outside the realm of criminal law) and civil rights. (S)

POLS 34440 - Early Western Political Thought (3)

Main currents of political thought in their historical setting from Plato to the 17th century, with a critical evaluation of those elements of continuing worth. Prerequisite: POLS 34215 with minimum grade of C or permission of instructor. (S, alt. years)

POLS 34441 - Modern Western Political Thought (3)

Main currents of political thought from the 17th century to the present, with a critical evaluation of the elements of continuing worth. Prerequisite: POLS 34215 with a minimum grade of C or permission of instructor. (S, alt. years)

POLS 34459 - Justice: Theories and Applications (3)

A comparative analysis of theories of justice and how they have been applied in the past and are currently affecting criminal justice systems. Special attention will be placed upon examination of restorative justice and use of the death penalty. Prerequisite: Either POLS 34205 or POLS 34215. (S, alt. years)

POLS 34469 - Advanced Studies in Juvenile Justice (3)

This course examines current topics relevant to the juvenile justice system in the United States to provide greater depth to the practices and procedures applied by the system. Topics may include special emphasis on juvenile offenders, policing of juveniles, or comparative themes within the subject matter. Prerequisites: POLS 34205 and POLS 34315. (S, alt. years)

POLS 34490 - Senior Seminar (1)

A one hour course designed to give pre-graduation students the opportunity to 1) integrate diverse elements of the substance of the major in a meaningful way; and 2) to review key skills targeted by the major and departmental mentor. (F, S)

POLS 34491 - Research Seminar in Criminology and Criminal Justice (3)

An intensive seminar in issues pertinent to the emphases within the major purposed to produce a research paper or project and class presentation of the student's choice in consultation with instructor. Student should demonstrate knowledge and skill acquired in degree program/emphasis within the final paper/project, including appropriate methodological application and statistical analysis. Prerequisites: SOSC 36201, POLS 34205, and completion of 39 of 60 hours within degree program prior to taking the course. (F, S)

POLS 34495 - Internship in Political Science (1 to 6)

A supervised internship in an approved governmental agency or private sector business - will include a formal evaluation and written reports by the student. Credit hours will vary according to the nature and duration of the internship. Repeatable for up to 6 hours of Political Science electives. (F, S, SS)

POLS 34496 - Internship in Political Science-non-major/minor credit (1 to 6)

A supervised internship in an approved governmental agency or private sector business - will include a formal evaluation and written reports by the student. Credit hours will vary according to the nature and duration of the internship. Repeatable for up to 6 hours of general electives, not applied to a Political Science degree program. (F, S, SS)

POLS 34499 - Independent Study in Political Science (1 to 3)

Offered only by special arrangement with the consent of the instructor involved and the department chairperson. Repeatable for new topics. (F, S)

POLS 34502 - Public Policy (3)

An intensive advanced course in American policy-making processes and problems of policy development at the national level. The focus is on the analysis of current public policies and their consequences. (S)

POLS 34511 - Special Topics (1 to 3)

A variable topics course designed to meet curricular and student needs not fulfilled by the rest of the political science curriculum. Content of the course will be described in the title. The course may be repeated for new topics to earn no more than six credit hours in total, subject to the approval of the instructor.

POLS 34515 - Revolutions & Social Movements (3)

The course is a comparative study of the causes and outcomes of world socio-political movements and revolutions affecting governmental change and development since 1500. Emphasis is placed on roles played by elites and masses in specific actions and society's evolving place in government formation. Cases examined include English, American, French, Latin American, Russian, and Chinese Revolutions, as well as current developments in national regimes. (F alt. years)

POLS 34524 - Minority, Gender, and Sexual Politics (3)

This course is an examination of the history and present status of minority and gender politics in a global perspective, with comparative emphasis on the political development of American minorities, women, and sexual politics. The course will encompass a seminar format, with emphasis on reading, presentation, discussion and critical thinking assignments. (S, alt. years)

PSYC - Psychology

PSYC 08100 - Special Offering (1 to 4)

PSYC 08103 - General Psychology (3)

A survey course designed to introduce students to the foundation of human and animal behavior. Students will study the content and the processes used by behavioral scientists to discover, describe, explain and predict human behavior. The course provides an environment in which students learn how to critically evaluate the biological, social/cultural and psychological variables that contribute to behavior and to reflect on those to develop an informed sense of self and others. (F, S, SS)

PSYC 08200 - Special Offering (1 to 4)

PSYC 08201 - Psychology in Films (3)

Designed to allow students to apply the principles learned in general psychology to popular films. Each week, the class will watch

one film and participate in a discussion of that film. Films will be chosen to present various models and views of a wide variety of psychological principles; discussion will center on the origins and implications of those views. Prerequisite: PSYC 08103.

PSYC 08204 - Introduction to Human Services (3)

Introduction to Human Services in an interdisciplinary approach to the understanding of human services in a multicultural society. The theoretical and practical approaches utilized by various human service agencies within the community will be considered. The course will also provide an overview of the skills necessary for entry level and professional workers in education, social work, mental health and human services administration. (F, S)

PSYC 08212 - Personal Adjustment (3)

Involves clarification of the assumptions, concepts and problems associated with personal adjustment and the field of mental health. It will include some history, definitions of mental health and mental health models. Emphasis is on preventive mental health, personal adjustment and community-based treatment facilities. (S)

PSYC 08223 - Abnormal Psychology (3)

Studies behavior patterns considered by society to be maladaptive. The emphasis is on diagnostic categories, relating diagnostic categories to symptom patterns and studying the etiology of symptom patterns. Therapeutic approaches are also presented. Prerequisite: PSYC 08103 or PSYC 08303. (F, S, SS)

PSYC 08234 - Introduction to Psychological Experimentation (3)

Designed to continue to develop student's critical thinking skills by introducing them to the scientific method and the research and data analysis techniques commonly used in psychology. Prerequisites: PSYC 08103 and MATH 17114. (F, S)

PSYC 08299 - Educational Psychology (3)

Emphasizes understanding and application of psychological principles that affect classroom instruction. Subject areas studied are cognitive development, learning, motivation, and evaluation. Intended for prospective teachers and others interested in psychology as applied to education. (F, S, SS)

PSYC 08301 - Career Paths and Preparations (3)

This course provides an examination of the various career paths within psychology. Students will have the opportunity to explore their skills, interests, and values while developing a tentative career plan. Emphasis is placed on preparation for graduate study as well as a career options within psychology. Prerequisite: PSYC 08103.

PSYC 08305 - Introduction to School Counseling (3)

A general orientation to and an exploration of the roles and functions of the K-12 school counselor and counseling programs within diverse academic populations. Explores the history of guidance and counseling, the comprehensive guidance program, developmental theory, facilitations models, counseling, large group guidance and guidance curriculum, consultation, coordination, peer facilitator projects, counseling ethics and program accountability. Prerequisites: PSYC 08303 or PSYC 08234. (S, odd years)

PSYC 08310 - Cognitive Psychology (3)

Introduces students to cognitive processes including perception, attention, memory, mental imagery, problem solving, language and decision making. The class balances theory (model building), research (inductive/deductive reasoning), and application to areas such as social psychology, law, education and engineering. Prerequisites: PSYC 08103 or PSYC 08303. (F, S)

PSYC 08312 - Child Psychology (3)

An introduction to human development prior to adolescence. Emphasis is placed upon understanding the genetic and environmental contributions to behavior, physical, social, intellectual, emotional and moral development of the child. The perspective used includes research, interpersonal and institutional components. Intended for prospective elementary school teachers. Prerequisite: PSYC 08103 or PSYC 08303. (F, S, SS)

PSYC 08313 - Industrial and Organizational Psychology (3)

Discusses the way psychological theories can be applied to understand behavior in organizations. Topics include personnel selection and placement, performance evaluation, leadership, and motivation. Prerequisite: PSYC 08103. (F)

PSYC 08315 - Psychology of Groups and Teams (3)

This course will draw upon Social Psychological research to understand behavior within the context of groups and teams. Given that understanding, students will discuss the differences between groups and teams as well as consider the ways in which Psychology can be applied to analyze and improve various aspects of group-based activities. (F)

PSYC 08317 - Psychology of Early Adolescence (2)

Survey of the developmental transformations from childhood to adolescence. The class examines the physical, cognitive, emotional and social changes unique to early adolescents. Intended for prospective middle school teachers. Prerequisite: PSYC 08303. (F, S, SS)

PSYC 08322 - Adolescent Psychology (2)

Examines the physical, mental, emotional and social life of the individual from puberty to legal adulthood and the influence of this growth period on the personal habits, attitudes, interests and social adjustments. Intended for prospective high school teachers. Attention is given to factors in the home, community and school that influence adolescent behavior and personality. Prerequisite: PSYC 08303. (F, S, SS)

PSYC 08323 - Child and Adolescent Psychopathology (3)

An overview of child and adolescent psychopathology. Provides students with a foundation of knowledge regarding the theoretical explanations of child and adolescent behaviors, as well as the assessment, diagnosis and treatment of these behaviors. Students will gain a better understanding of mental health issues facing children and adolescents. Prerequisite: PSYC 08103 or PSYC 08303. (F, even years)

PSYC 08325 - Sport Psychology (3)

This course will examine psychological principles and techniques applied to sport performance. Special attention will be given to psychological skills training techniques, psychological aspects of injury and rehabilitation, burnout, and athletic career termination issues. Prerequisite: PSYC 08103. (S)

PSYC 08330 - The Family (3)

A study of the variety of styles of interpersonal relationships emphasizing self-

knowledge and understanding of individuals within relationships as a basic step in relating to others in dating, courtship, engagement, marriage and daily living. Includes exploration of types of relationships, communication patterns and alternative family forms. (F, S)

PSYC 08331 - People, Money, and Psychology (3)

The role of the consumer in the marketplace, forces influencing consumer demand, and the broad social and economic implications of consumer behavior.

PSYC 08333 - Developmental Psychology (3)

A comprehensive survey of human developmental principles emerging during conception and continuing through to the process of death. Emphasis is placed upon the physical, intellectual, cognitive and social-emotional growth from research, theoretical and applied viewpoints based upon empirically demonstrated psychological knowledge. Prerequisite: PSYC 08103 or PSYC 08303. (F, S, SS)

PSYC 08334 - Experimental Psychology (3)

Designed to build on concepts and skills covered in PSYC 08234. Focuses on the design/logic of experimental design, internal and external validity, how to collect meaningful psychological data, how to analyze and interpret data, and the role of theory in psychology. Prerequisites: PSYC 08103, PSYC 08234, and MATH 17114. Behavioral Science majors must earn a grade of C or higher in each prerequisite course. (F, S)

PSYC 08335 - Introduction to Case Management (3)

Surveys the historical and cultural influences related to philosophy and application of testing, statistical issues in test construction and administration, types of psychological tests and their uses, psychosocial evaluations related to psychological tests of measurements, ethical and legal concerns in psychological testing and assessment, and careers in assessment. Prerequisites: PSYC 08103. (F, S)

PSYC 08343 - Biological Psychology (3)

An examination of the relationship between behavior, thinking, and emotion and the underlying biological mechanisms of behavior, including elementary neuroanatomy and neurophysiology.

Prerequisites: PSYC 08103 and PSYC 08234.
(F, S)

PSYC 08344 - Drugs, Brain, and Behavior (3)

Examination of the relationship between neuronal communication, drug use and behavior. Focuses on a description of basic neuroanatomy, an explanation of nervous system functioning, and how both legal and illicit drugs influence this communication and resulting behavior, thinking and emotion. Prerequisites: PSYC 08103, PSYC 08234 and PSYC 08343. (F, even years)

PSYC 08345 - Disaster Psychology (3)

A broad introduction to the field of disaster psychology by examining theory, research and practice in disaster psychology. Focuses on the impact of a disaster on both responders and those directly impacted by the event. Discusses intervention strategies and the role of relief organizations. Prerequisites: PSYC 08103 and SOSC 36301. (F, S)

PSYC 08353 - Psychology of Race and Gender (3)

Explores recent literature and research related to biological and cultural factors influencing the development of racial and gender identities. Explores the ways in which stereotypes and social roles affect our lives at the personal, social and institutional levels. Prerequisite: PSYC 08103. (S)

PSYC 08360 - Key Issues in Psychology (1 to 3)

Critical examination of status of theory and research involving key issues of contemporary knowledge in psychology. Repeatable for topic change. Prerequisites as announced.

PSYC 08363 - Psychology of Personality (3)

Examines individual patterns of behavior and reviews diverse theoretical positions that explain personality in terms of individual dynamics, biology, culture, and cognition. Emphasis is placed on understanding the research and philosophy of personality in the context of widely recognized theories of psychology. A survey of relevant and current research is included. Prerequisite: PSYC 08103. (F, S, SS)

PSYC 08365 - Social Psychology (3)

An introductory course probing the development of human behavior in its social context. Significant theories and

methodologies in social psychology developed within the disciplines of sociology and psychology are considered, along with representative research in areas such as social perception and attribution, interpersonal attraction, aggression, altruism, role- and self-development and group processes. Prerequisites: SOC 35101 or PSYC 08103. (F, S, SS)

PSYC 08370 - Applied Behavior Analysis (3)

A systematic review of the facts, concepts, and principles which describe classical and operant conditioning, extinction, generalization/discrimination processes, focusing on their application to therapy, self-improvement, education, parenting, and animal training. Prerequisite: PSYC 08103. (F, odd years)

PSYC 08383 - Psychology of Aging (3)

A comprehensive survey of the changes older adults experience in the areas of physical decline, intellectual/cognitive functioning, socioeconomic adjustment and death/dying. Prerequisite: PSYC 08103. (S)

PSYC 08400 - Special Offering (1 to 4)

PSYC 08401 - Special Topics in Psychology (1 to 4)

Each course is designed to address the needs of students and/or to incorporate the latest information pertaining to a timely topic or experience in psychology. May be repeated once. (F, S, SS)

PSYC 08405 - Parenthood Education (3)

A study of major parenting strategies and the development of competencies necessary for effective parenting and the student's future involvement in parenthood education. (F, S)

PSYC 08419 - Independent Study (1 to 3)

Allows an intensive, in-depth study by junior and senior psychology majors and minors in any area of their choice subject to the permission of the professor and the department chairperson. Minimum of 13 hours in psychology and consent of chairperson. May be repeated for a total of 3 hours for new experience. Prerequisite: PSYC 08103. (F, S, SS)

PSYC 08423 - History and Systems of Psychology (3)

This course is an in-depth survey of the historical foundations of modern psychology, discussing the influence of important people, ideas, and schools of thought within their

social, cultural, political, and economic context. With an emphasis on practical application of historical principles and ideals, the course will include historically engaging experiences as well as philosophical and physiological perspectives that led to the approaches and ways of thinking. Prerequisites: PSYC 08103 and advanced standing. (F, S)

PSYC 08438 - Principles of Counseling (3)

Provides students with a foundation of information related to the professional development of counselors and therapists. Provides tools and ethical guidelines required in the counseling and psychotherapy professions. Covers career paths of professional counselors, reviews counseling theory, and how active listening is used by the beginning therapist. Prerequisites: PSYC 08103. (F, S)

PSYC 08443 - Advanced Biological Psychology (3)

An in-depth analysis of the anatomical and physiological correlates of behavior. Emphasis is placed on the physiological basis of sensation and perception, the brain mechanisms and control of movement, the genetic basis of personality, the biological basis for alcohol and drug dependency, neuropsychological disorders and an introduction to psychopharmacology. Other topics may be included. Prerequisite: PSYC 08103, PSYC 08234, and PSYC 08343. (F)

PSYC 08495 - Field Placement/Internship (3)

Placement in approved facility offering psychological or human service activities. Prerequisite: Completion of 20 hours in psychology courses and instructor approval. Repeatable for new experience. (F, S, SS)

PSYC 08500 - Special Offering (1 to 4)

Prerequisites: PSYC 08103 and consent of instructor and department chairperson. Repeatable with topic change.

PSYC 08524 - Independent Living for Special Populations (3)

A lifespan approach to the principles involved in developing independent living skills for those who have disabilities. The course will be designed to provide training and experience in working with the handicapped and the elderly. Prerequisite: PSYC 08335 or by permission.

PSYC 08526 - Psychology of Leadership (3)

Course is designed for individuals who wish to pursue leadership positions, using research supported psychological principles and theory, in community service, education, business management, and/or the helping professions. Focuses on the application and utilization of basic psychological concepts and principles related to the career area of interest. Prerequisite: Senior or graduate standing. (SS)

RAD - Health Sciences

RAD 49301 - Radiographic Anatomy and Physiology I (2)

This course will introduce the students to the function and structure of the organizational levels and systems associated with the human body. An overview of the respiratory and digestive systems will be introduced to coincide with the chest and abdomen positioning phases of the procedures courses. The anatomy of the upper extremity will be a primary topic along with articulation classifications and fractures of the skeletal system.

RAD 49302 - Clinical Education I (1)

A clinical course that focuses on procedures and functions in the radiology clinical setting. With direct supervision, the student will develop clinical skills through observation and assistance in general radiographic procedures of the chest, abdomen, and upper extremities. Limited competency testing is required during this semester.

RAD 49303 - Medical Imaging I (2)

Concepts of radiology science including study of matter and energy, sources of radiation, x-ray properties, discovery of x-rays, basic radiation protection and the concept of the imaging team. Introduction to the x-ray tube, as well as prime radiographic factors and basic radiographic factors and basic radiographic equipment.

RAD 49304 - Radiographic Positioning and Procedures I (2)

Introduction to radiographic procedures, basic terminology, and topographical landmarks. Positioning, procedure, and image evaluation critique of the chest, abdomen and upper extremities will be performed. Students will use cognitive correlation of theory and practical application in the laboratory after didactic instruction. An overview of the respiratory and digestive systems will be introduced to coincide with the chest and abdomen

positioning phases of this procedures class. The anatomy of the upper extremities will be presented along with various types of fractures associated with the bones of the upper body which will be included in the upper extremity positioning phase of this procedures class. Students will learn to apply basic patient care and critical thinking skills with trauma patients in Radiographic Positioning and Procedures 301.

RAD 49305 - Radiographic Positioning and Procedures I Laboratory (1)

This positioning and procedures lab course is designed to provide students with hands-on experience in a non-patient related clinical area. Radiographic Procedures lab will introduce the students to the function and structure of the different organizational levels and systems associated with the human body. The anatomy of the chest, abdomen and upper extremities will be presented along with various types of fractures associated with the upper extremities. Pathology and clinical findings will be discussed as well. Equipment manipulation, control panel maneuvers and table positioning, central ray angulations as well as image receptor placement and other medical imaging operations will be evaluated.

RAD 49306 - Clinical Education II (2)

A clinical course that focuses on procedures and functions in the radiology clinical setting. With direct supervision, the student will develop clinical skills through participation and observation of studies of the lower extremity, digestive system, urinary system and biliary system. Prerequisite: RAD 49302 with a minimum grade of C.

RAD 49307 - Introduction to Radiologic Science (2)

This course will provide the student with an overview of radiology as a diagnostic tool and an allied health profession. Introduction to x-ray interaction, radiation protection, clinical education, patient communication and patient care are included in this course. Professional ethics and medical law overview complete this course.

RAD 49308 - Literature Review (1)

This is a self-directed course which enables the student to research various technological and diagnostic advances within the field of radiology. Students will submit papers to present and/or projects to display at the annual society meeting in order to satisfy the

course requirements. This course will allow the student to research into the branches of the field of radiology. Each student will select and research one of the following modalities for this course in literature review. The modality selections will range from Nuclear Medicine, Magnetic Resonance Imaging, Bone Densitometry, Diagnostic Radiography and Fluoroscopy, Radiation Therapy/Oncology, Positron Emission Tomography/PET CT, Mammography, Interventional Radiography, Cardiovascular Radiography and Ultrasonography.

RAD 49309 - Radiographic Physics (2)

This course will cover the fundamentals of basic physics with an emphasis of how physics is correlated to radiation technology. Topics will include basic science concepts, the study of the atoms, the production and emission of x-rays and their interactions with matter. Prerequisite: RAD 49303 with a minimum grade of C.

RAD 49310 - Radiographic Positioning and Procedures II (2)

Radiographic Procedures will introduce the student to the function and structure of the different organizational levels and systems associated with the human body. The anatomy of the lower extremities and pelvis will be presented along with various types of fractures associated with the bones of the lower body. Procedures of the digestive system, biliary system and genitourinary system will be demonstrated. Basic CT abdomen review and a recap of contrast review. Equipment manipulation, control panel maneuvers and table operation will be monitored by the instructor. Demonstration of radiologic positioning, central ray angulations as well as image receptor placement and other medical imaging operations will be evaluated. Prerequisites: RAD 49304 and RAD 49305, both with a minimum grade of C.

RAD 49311 - Radiographic Positioning and Procedures II Laboratory (1)

This positioning and procedures lab course is designed to provide students with hands-on experience in a non-patient related clinical area. Radiographic Procedures lab will introduce the students to the function and structure of the different organizational levels and systems associated with the human body. The anatomy of the lower extremities and pelvis will be presented along with various types of fractures associated with the bones of the lower body. Procedures of the digestive system, biliary

system and genitourinary system will be demonstrated. Basic CT abdomen review and a recap of contrast review. Equipment manipulation, control panel maneuvers and table operation will be monitored by the instructor. Demonstration of radiographic positioning, central ray angulations as well as image receptor placement and other medical imaging operations will be evaluated. Prerequisites: RAD 49304 and RAD 49305, both with a minimum grade of C.

RAD 49312 - Radiographic Anatomy and Physiology II (2)

Lower extremity anatomy will begin in this course. An overview of the chemistry of life processes, chemical organization, bonding, organic, and inorganic chemistry will be discussed. Size, shape, and composition of cells as well as their function will be addressed. Sense organs that include the eye, ear, and taste receptors, cell reproduction and division processes and genetic information will be covered. Tissue types and their locations and the integumentary system and membranes as well as the digestive, metabolism, nutrition and urinary tract anatomical structures and function will be a primary topic. This course is completed with the male and female reproductive systems. Prerequisite: RAD 49301 with a minimum grade of C.

RAD 49313 - Clinical Education III (2)

A clinical course that focuses on procedures and functions in the radiology clinical setting. With direct supervision, the student will develop clinical skills through participation of examinations to include the skull, sinuses, facial bones, and vertebral column. The student will have observation and limited participation in supplementary advanced imaging modalities and studies. The student will continue to expound on Clinical Education 301 and 302 exams. Prerequisite: RAD 49306 with a minimum grade of C.

RAD 49314 - Image Evaluation (1)

Seminar course designed to review radiographs of the thorax, vertebral column, abdomen, cranium, and extremities in regard to positioning, anatomy and technical factors for each image. Prerequisite: completion of 2 semesters radiology courses.

RAD 49315 - Medical Imaging II (2)

This course is a continuation of the principles of Medical Imaging 301. This imaging course will cover the principles of beam restriction, limiting, and collimation, scatter radiation, minimizing patient dose, ESE, and the inverse

square. The prime radiographic factors and image quality components of density, contrast, detail, and distortion are addressed. Radiographic grids structure and function as well as discussion of factors that affect image density and image quality will also be included in this course. This imaging course will include a review of x-ray production and interaction with matter. X-ray film and screen properties which include construction, handling and storage and associated properties, sensitometry, automatic processing and silver recovery of radiographic film will be included. Prerequisite: RAD 49303 with a minimum grade of C.

RAD 49316 - Radiographic Physics II (2)

This course will continue covering the fundamentals of basic physics with an emphasis of how physics is correlated to radiation. Topics will include basic science concepts, the study of the atoms and the fundamentals of electromagnetism and the X-ray Imaging System. Additional topics include beam limitation, tomography and fluoroscopy. Prerequisite: RAD 49309 with a minimum grade of C.

RAD 49317 - Radiographic Anatomy and Physiology III (2)

The vertebral column, skull, sinus, and facial bone anatomy are presented. Radiographic images, models and diagrams will be utilized to reinforce learning. Ribs and sternum anatomy will also be included. Prerequisite: RAD 49312 with a minimum grade of C.

RAD 49318 - Radiographic Positioning and Procedures III (2)

Radiographic Procedures will introduce the students to the function and structure of the different organizational levels and systems associated with the human body. Anatomy and positioning procedures for the ribs, sternum, sternoclavicular joints, cervical spine, thoracic spine, lumbar spine, sacrum, coccyx, sacroiliac joints, skull, facial bones, sinuses and nasal bones will be covered. Fractures and pathology associated with the above will also be discussed. Anatomy and positioning procedures for uncommon procedures of the upper and lower extremities, pelvis, spine, and head will be reviewed. Pediatric radiographic positioning, and a study of immobilization will be taught in this course. Equipment manipulation, control panel maneuvers and table operation will be monitored by receptor placement and other medical imaging operations will be

evaluated. Prerequisites: RAD 49310 and RAD 49311, both with a minimum grade of C.

RAD 49319 - Radiographic Positioning and Procedures III Laboratory (1)

This positioning and procedures lab course is designed to provide students with hands-on experience in a non-patient related clinical area. Radiographic Procedures lab will introduce the students to the function and structures of the different organizational levels and systems associated with the human body. Anatomy and positioning procedures for the ribs, sternum, sternoclavical joints, cervical spine, thoracic spine, lumbar spine, sacrum, coccyx, sacroiliac joints, skull, facial bones, sinuses and nasal bones will be covered. Fractures and pathology associated with the above will also be discussed. Anatomy and positioning procedures for uncommon procedures of the upper and lower extremities, pelvis, spine, and head will be reviewed. Pediatric radiographic positioning and a study of immobilization will be taught in this course. Equipment manipulation, control panel maneuvers and table operation will be monitored by the instructor. Demonstration of radiographic positioning, central ray angulations as well as image receptor placement and other medical imaging operations will be evaluated. Prerequisites: RAD 49310 and RAD 49311, both with a minimum grade of C.

RAD 49401 - Clinical Education IV (4)

A clinical course with emphasis on supervised application and evaluation of procedures using image intensification, mobile radiography, and other diagnostic radiographic procedures. The student will have continued supervised application and evaluation of procedures involving interventional radiography and surgical suite examinations. The student will continue to expound on Clinical Education 301, 302, and 303 exams. Prerequisite: RAD 49313 with a minimum grade of C.

RAD 49402 - Clinical Education V (2)

A clinical experience with limited supervision for continued emphasis in application and evaluation of procedures involving all aspects of radiology. The student will continue to expound on Clinical Education 301, 302, 303 and 404 exams. Prerequisite: RAD 49401 with a minimum grade of C.

RAD 49403 - Medical Imaging III (2)

This course includes all aspects of digital imaging acquisition and display. Included are

topics regarding understanding of the components, principles and operation of digital imaging systems. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within the digital system assist students to bridge between film based and digital imaging systems. Prerequisite: RAD 49401 with a minimum grade of C.

RAD 49404 - Pathology I (2)

Examination of pathologic conditions related to various radiologic procedures. Introduction to pathology is the study of significant diseases, which present radiologic findings. Studies will include the diagnosis, etiology, symptoms, treatment and radiographic correlations of pathologic conditions with relationship to cell pathology, inflammation, bone and joint disease, gastrointestinal system, respiratory, urinary system, male and female reproduction system. Student will learn how to select proper exposure factors for the pathology that is in existence and how the pathology will appear on radiographic images.

RAD 49405 - Radiology Biology and Radiation Protection (2)

This course will continue covering the fundamentals of basic radiation biology as well as basic radiation safety theory. Biology topics will include the fundamental principles of radiation biology, molecular and cellular radiobiology and the early and late effects of radiation. Radiation protection topics will include Health Physics practices, considerations for design of equipment and facilities, as well as procedures for ensuring the safety of radiation workers, patients, and members of the public.

RAD 49406 - Radiographic Positioning and Procedures IV (2)

Radiographic and gross anatomy and physiology and radiographic image terminology pertinent to the systems of the body to include: hepatobiliary, urinary, myelography, mammography, arteriography, venography, and orthopedic radiography. Contrast media usage and contraindications will be discussed. Prerequisites: RAD 49318 and RAD 49319, both with a minimum grade of C.

RAD 49407 - Radiographic Anatomy and Physiology IV (2)

This course reveals the structural and functional anatomy of the nervous system. To be included in are the organs, divisions and cells of the nervous system, nerve tracts, reflex arc, impulses and synapses. Divisions of the brain and spinal cord to include coverings and fluid spaces will be discussed. Cranial and spinal nerves of the peripheral nervous system and the functional and structural components of the autonomic nervous system will be complete the central nervous system anatomy. Introduction to blood components, blood types and coagulation will be introduced. Anatomy of the heart, major blood vessels and physiology of the cardiovascular system as well as pathologic conditions associated with the above anatomical structures. The endocrine, lymphatic and immune systems will be discussed. Prerequisite: RAD 49317 with a minimum grade of C.

RAD 49408 - Clinical Education VI (2)

Course emphasizes the development of expertise in all radiographic procedures with indirect supervision in proven competency areas and direct supervision in other related radiology areas. The student will continue to expound on Clinical Education 301, 302, 303, 404 and 405 exams. Prerequisite: RAD 49402 with a minimum grade of C.

RAD 49409 - Corectec (2)

Corectec has developed numerous computer programs to help radiography students learn the content required to be successful technologists and to pass the nationally required examination, the American Registry of Radiologic Technologists (ARRT). Corectec incorporated the review materials into an online review course. The online review course individualizes the learning experience by giving immediate feedback and review of the subject being tested. Additionally, the course is frequently updated to reflect the latest changes in terminology and content in the subject area. Students will submit units to instructor at specific intervals throughout the semester.

RAD 49410 - Imaging Modalities (2)

This course is designed to offer the student information about numerous imaging modalities available in the field of radiologic technology.

RAD 49411 - Pathology II (2)

Examination of pathologic conditions related to various procedures. Introduction to pathology is the study of significant diseases, which present radiologic findings. Studies

will include the diagnosis, etiology, symptoms, treatment and radiographic correlations of central nervous system, cardiovascular, endocrine system, fluid and hemodynamic disorders and liver, pancreas, biliary systems, neoplasia, breast, skin and muscles. Students will learn how to select proper exposure factors for the pathology that is in existence and how the pathology will appear on radiographic images. Prerequisite: RAD 49404 with a minimum grade of C.

RAD 49412 - Quality Assurance (2)

Quality control and quality assurance in the radiology department. Test tools and equipment utilized to ensure appropriate images. State and federal guidelines which are applicable to film screen radiography as well as digital radiography equipment. Laboratory experiments will be conducted to reinforce didactic lessons.

RAD 49413 - Radiography Curriculum Review (2)

The student will participate in testing modules provided by The College of St. Catherine's Developmental Testing Program for Radiography located in Minneapolis, MN. The tests are comparative to registry examination questions. The results of the tests submitted on behalf of the St. Luke's Hospital class will be compared to students' scores across the United States participating in the same type of testing program.

RAD 49414 - Cross Sectional Anatomy (2)

Study of cross sectional anatomy of the head, chest, abdomen and extremities with correlation to Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). Prerequisite: RAD 49407 with a minimum grade of C.

REC - Recreation

REC 45210 - Special Topics in Recreation Activity (1 to 3)

Designed for special workshops, special topics, new initiatives and developing courses in recreation that are activity based. Repeatable for new experience and further mastery. (F, S, SS)

REC 45211 - Leisure and Society (3)

This course explores the historical and contemporary leisure and recreation phenomena within the context of societal diversity and multicultural considerations. The course will review diverse perspectives

on the meaning of leisure and the role it plays within cultures and ethnic groups, as well as the potential implications of assimilation into dominant cultural norms. (F, S, SS)

REC 45216 - Gerontology (3)

Provides an overview of the total process of aging and the changes that evolve in society and in the lives of individuals as others grow old ahead of us. Students will be encouraged to think positively and realistically about aging and the elderly, and develop sensitivity to family and social and economic situations of older people. (F, SS)

REC 45240 - Foundations of Recreation (3)

An introductory course designed to provide an overview of the different areas of study, participation and career opportunities in the field of recreation and leisure. Includes a thorough description of its current scope and organizational practices, as well as the historical, sociological, psychological, philosophical and economic aspects of recreation and leisure. Concurrent enrollment in REC 45245 is recommended. (F, S)

REC 45243 - Introductions to Therapeutic Recreation (3)

Designed to introduce students to the therapeutic recreation profession. Course content focuses on three distinct areas: historical and technological development, clinical and programmatic management, and current community and clinical practice. Prerequisites: REC 45240 and REC 45245, or permission of instructor. (F)

REC 45245 - Leisure Services and Special Populations (3)

Students are provided with opportunities to review their personal awareness and values related to various special populations. An overview of general strengths and limitations faced by each group will be presented. Exploration of leisure services offered for special populations as well as adaptations to programs to promote inclusion is stressed. Prerequisite: Concurrent enrollment recommended in REC 45240. (F, S)

REC 45310 - Special Topics in Recreation (1 to 3)

Designed for special workshops, special topics, new initiatives and developing courses in recreation at the undergraduate level. Repeatable for new experience and further mastery. (F, S, SS)

REC 45315 - Social Aspects of Aging and Families (3)

This course introduces you to social welfare programs designed to assist older adults such as Social Security, Medicare and Medicaid. You will also have the opportunity to learn about social networks and families in later life. (Fall, even years)

REC 45321 - Exploring Recreation Resources (3)

This course allows students the opportunity to visit a variety of recreation agencies for the purpose of comparing and contrasting the nature of the services provided, and to learn about career opportunities. Repeatable for new experience and further mastery. (SS)

REC 45340 - Recreational Programs (3)

Principles of program planning; roles of leader, administrator and community in program planning; special consideration for programs necessitated by various recreation settings; short term, seasonal and year round. Prerequisites: REC 45240 and REC 45245 and concurrent enrollment in REC 45443 recommended. (F, S)

REC 45345 - Therapeutic Recreation Program Design (3)

Designed to develop the necessary competencies and skills needed to plan and implement appropriate therapeutic recreation programs for diverse special need populations. Prerequisites: REC 45243 and REC 45245, or permission of instructor. (S)

REC 45365 - Leisure and Aging (3)

The course explores the role of leisure in a healthy older adult development. Students will acquire a basic understanding of leisure for the current older adult cohort, the Baby Boomers, and future elders. Students will explore leisure services and settings, critically analyzing how history has and will shape the leisure behaviors of seniors (F)

REC 45425 - Expressive and Creative Programs (3)

An exploration into the highly creative program areas in the recreation and leisure industry. Course will examine the performing and visual arts, arts and crafts, dance, literature and drama. Students participate in, and lead activities, and develop a resource guide.

REC 45434 - Senior Seminar in Recreation (3)

A study of the current issues and trends in recreation and internship preparation. (F, S)

REC 45440 - Leisure Resources/Facility Design and Management (3)

Understanding of the principles and the ability to apply techniques of planning, design, development and maintenance of recreation and park areas and facilities. (F, S)

REC 45443 - Techniques of Recreation Leadership (3)

Theoretical and practical experiences in recreation leadership. Techniques of group work and progressive leadership applicable to recreational activities, programs and settings. Prerequisites: REC 45240 and REC 45245. Concurrent enrollment in REC 45340 recommended. (F, S)

REC 45444 - Outdoor Recreation/Education (3)

Exploration of the outdoor activity areas in the recreation and leisure industry. Students participate in activities, lead activities, and develop a resource guide of activities associated with outdoor recreation and education. (F)

REC 45445 - Natural Resource History and Interpretation (3)

Exploration of federal and state natural resource agencies. Focus will be on the history, philosophies, uses, and management practices of wildlands, historic resources, and natural areas. The course will explore and practice the communication processes and practices between managers and publics that help interpret the special characteristics of natural, cultural, and historic resources. (F)

REC 45446 - Evaluation of Leisure Services (3)

Knowledge of appropriate measurement techniques utilized in the recreation and leisure services industry. Emphasis will be placed on those assessment/evaluation skills which are used by leisure professionals to determine the extent to which programmatic and organizational goals and objectives have been achieved. Prerequisites: REC 45340 and REC 45443. (F, S)

REC 45449 - Independent Study in Recreation (1 to 3)

Individual study in recreation and/or leisure, under faculty supervision of a selected area of interest. May be repeated for a total of three hours for new experience or further

mastery. Prerequisite: Permission of advisor and instructor. (F, S, SS)

REC 45450 - Field Experience in Recreation and Park Management (3)

Opportunity to gain practical experience in specific recreation and park management programs. The experience should include a minimum of 200 hours of hands-on, supervised practical experience for an 8-12 week period. Must be directed and supervised by a recreation professional and University field experience supervisor. Prerequisites: REC 45340 and REC 45443, or permission of instructor. (F, S, SS)

REC 45451 - Field Experience in Therapeutic Recreation (3)

Opportunity to gain practical experience in specific therapeutic recreation programs. The experience should include a minimum of 200 hours of hands-on, supervised practical experience for an 8-12 week period. Must be directed and supervised by a recreation professional and University field experience supervisor. Prerequisites: REC 45243, REC 45340 and REC 45443, or permission of instructor. (F, S, SS)

REC 45452 - Field Experience in Corporate Recreation/Wellness (3)

Opportunity to gain practical experience in specific corporate recreation and wellness programs. The experience should include a minimum of 200 hours of hands-on, supervised practical experience for an 8-12 week period. Must be directed and supervised by a recreation professional and University field experience supervisor. Prerequisites: REC 45340 and REC 45443, or permission of instructor. (F, S, SS)

REC 45455 - Field Experience in Sport Management (3)

An opportunity to gain practical experience in specific sport management programs. Experience will include a minimum of 200 hours of hands-on, supervised practical experience.

REC 45461 - Therapeutic Recreation Interventions with the Elderly (3)

The course is designed to introduce students to various therapeutic activity intervention strategies that have been shown to benefit frail older adults. Emphasis will be given to looking at behavior issues, physical and mental challenges, documentation,

evaluation, and communication with the elderly. (S)

REC 45469 - Practicum in Aging (3)

As a way to apply what is learned in coursework and to become more comfortable working with elders, the student must complete a 3 credit, 200 hour practicum providing experiences with both well and frail older persons. Students are required to complete this practicum in addition to any other practicum required for other programs. Prerequisite: 12 hours of coursework in the Gerontology minor. (F, S, SS)

REC 45499 - Recreation Internship (6 to 12)

A gradual induction to professional recreation is provided through a progression of experiences. The experience should include a minimum of 480-560 hours of hands-on, supervised practical experience over a 12-16 week period. The experience will be directed and supervised by a recreation professional and a University internship supervisor. Settings for internships may include municipal or community recreation and/or park departments, social service agencies, hospitals, penal institutions, retirement homes and others. Repeatable for new experience. Prerequisites: REC 45446, REC 45546, and REC 45450 or REC 45451 or REC 45452. (F, S, SS)

REC 45510 - Special Topics in Recreation (1 to 3)

Designed for graduate/advanced level special workshops, special topics, new initiatives and developing courses in recreation. Repeatable for new experience and further mastery. (F, S, SS)

REC 45511 - Golf Course Maintenance and Management (2)

Designed to familiarize students with the aspects of golf course maintenance and management. Covers the design and maintenance of greens, tees, fairways, roughs, and bunkers. Concepts of staffing, budgeting, and equipment selection and maintenance will be covered. (S)

REC 45512 - Aquatic Facility Maintenance and Management (2)

Emphasizes the development of technical knowledge and skills needed to operate a safe aquatic environment, staff development and management, and aquatics program development. (S)

REC 45513 - Outdoor Recreation Facilities Maintenance and Management (2)

Designed to help students develop a knowledge base related to the maintenance and management of outdoor recreation resource areas. Specific areas of study will include shooting sports areas, climbing walls and towers, trails, marinas, camp grounds, and RV operations. (F)

REC 45520 - Challenge Course Facilitator Training (3)

Course emphasizes assessing, planning, implementing, processing and evaluating challenge course programs in the recreation services industry. Programs are designed to promote communication, cooperation, trust, goal setting, problem solving, self-concept and interpersonal interactions. Repeatable for new experience or further mastery. (F, S, SS)

REC 45525 - Commercial Recreation (3)

An introduction to the scope, characteristics, development, management aspects and trends within the commercial recreation industry including the delivery of goods, services, amenities, facilities, and entrepreneurship. (S)

REC 45533 - Recreation Sports Management (3)

A study of the objectives and principles of administering an intramural program at the high school or college level. Application of principles to practical situations with field experience. Prerequisite: REC 45340 and REC 45443, or HPER 22239 and HPER 22333. (F)

REC 45540 - Group Dynamics (3)

An introduction to the dynamics of group work including different models of group development, types of groups, stages of development, selective processes and intervention strategies. Students will observe, participate in and evaluate group activities. Group leadership and facilitation skills will be presented. (F)

REC 45542 - Trends and Issues in Therapeutic Recreation (3)

This course is designed to familiarize students with existing trends in therapeutic recreation programming, to discuss current legal issues, current societal attitudes toward individuals with disabilities, trends within the health care delivery system, and other current trends and issues related to therapeutic recreation. Prerequisites: REC

45243 or REC 45345 or permission of instructor. (S)

REC 45545 - Risk Management (3)

Designed to give students a basic understanding of their legal responsibilities as teachers, coaches, trainers and recreation professionals to provide a safe environment for those they serve, and to develop an understanding of the law and how it may apply to the rights of students, special populations, women and co-workers. (S, SS)

REC 45546 - Administration of Recreation (3)

Organization and administration of recreation on the federal, state, and local levels. Special attention is given to community organization for recreation; budgeting and personnel management; and the place of physical activities, pageants, and special events in the recreation program. (F, S)

REC 45547 - Grantsmanship (3)

Acquaints students with the vocabulary, concept and practices in the study of grants administration and management. Enables practicing the skills necessary in obtaining outside funding and provides awareness of the individual roles and agencies within public funding. (F)

REC 45562 - Assessments, Diagnostics, and Treatment Planning in Therapeutic Recreation (3)

Course will provide an overview of (1) the basic concepts associated with psychometric assessment, (2) a variety of individual client assessments used in practice and (3) the use of therapeutic recreation assessments in the development of individualized treatment/program plans. Prerequisites: REC 45243 or REC 45345 or permission of instructor. (F)

Activity Courses

Only 4 activity credits may count toward the minimum hours required for graduation.

REC 45110 - Climbing Wall (1)
(F, S, SS)

REC 45124 - Noncompetitive and Recreational Games (1)

REC 45130 - Canoeing (1)
(F, SS)

REC 45131 - Kayaking (1)
(F, SS)

REC 45132 - Watercraft (1)
(F, SS)

REC 45140 - Archery (1)
(F, SS)

REC 45150 - Trapshooting (1)
(F, S, SS)

SCED - Science Education

SCED 28200 - Special Offering (1 to 4)

SCED 28380 - Methods in Elementary School Science (3)

This course is designed to acquaint the prospective teacher with science subject matter and science curricular materials used in modern elementary school science programs. The course provides classroom experiences in the use of scientific equipment and material available in many elementary school science programs. Individualized and small group activities are provided to give experience in using a variety of methods in teaching science.

Prerequisites: a minimum grade of C will be required in all of BIOL 04102 and BIOL 04103, and PHSC 40102 and PHSC 40103 or PHYS 25110 and PHYS 25111 or PHYS 25112 and PHYS 25113, and Admittance to Teacher Education. (F, S)

SCED 28400 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

SCED 28500 - Special Offering (1 to 4)

Repeatable for additional experience, new material and progression of study.

SCED 28550 - History of Science and Technology (3)

This course will develop a conceptual framework for scientific and technological literacy. The goals of the course will be related to the acquisition of knowledge, the development of learning skills and the development of values and ideas. Characteristics of science, technology and society instruction will be stressed. Prerequisite: Science majors (15 hours in science recommended). (S)

SCED 28580 - Methods in Secondary School Science (3)

This course is designed to acquaint prospective science teachers with the methods and materials needed in teaching science at the secondary level. The course provides individualized experiences related to the teaching of the subject fields each student has elected for his or her major or minor area. Prerequisite: Science major or minors admitted to Teacher Education. (F)

SCED 28582 - Methods in Middle School Science (3)

A course to assist prospective middle school science teachers with the methods and materials needed in teaching science at the middle school level. Prerequisite: Science majors or minors (EDUC 61570, 15 hours of science), and Admittance to Teacher Education. (F)

SCGD - School Counseling

SCGD 68520 - Drug Prevention and Education in Schools (3)

Prepares the classroom teacher to become an effective drug-education facilitator. The emphasis is on methods and techniques useful in helping youth develop a positive self-concept, improve communication skills, clarify value issues and assimilate information regarding drug issues. Prerequisite: Senior or graduate standing. (S, even years)

SCGD 68570 - Principles and Practices of the K-12 Guidance Program (3)

Provides a general orientation to the roles and functions of the K-12 school counselor. Developmental guidance and counseling is examined. Prerequisites: Senior or graduate standing and consent of advisor. (SS)

SOC - Sociology

SOC 35101 - General Sociology (3)

This course is designed to provide a greater understanding of the social world. Sociology is defined as a scientific study of human behavior in social life with an assumption that there are social forces which shape and influence patterns of behavior and ways of thinking. These include social forces such as culture, stratification, age, gender, race and ethnicity, and globalization. Several sociological perspectives serve as the point of reference by which human behavior at the micro and macro level are better understood. (F, S, SS)

SOC 35108 - General Anthropology (3)

A survey course covering the origins of man, ancient man and prehistoric culture; faces of man and cultural capacity; historical and contemporary preliterate culture, including housing and handicrafts, marriage and kinship, status and role, property and government, religion and the supernatural. (S)

SOC 35200 - Special Offering (1 to 4)

SOC 35215 - Probation and Parole (3)

This course examines the practices and procedures of probation and parole in the United States within the adult and juvenile systems. (S, even years)

SOC 35230 - Social Problems (3)

This course is designed to explore competing explanations for the causes and/or influences of, and cures for social problems at the micro and macro levels. The course critically analyzes dominant definitions of social problems, the political and economic roots of these problems, and the public policies aimed at reducing them. Prerequisite: SOC 35101. (F)

SOC 35240 - Introduction to Corrections (3)

An introduction to the history, concept and realities of crime and punishment with an emphasis on the increasing social significance and diversity of prisons and the penal system in American society. Prerequisites: PSYC 08103 or SOC 35101. (S, odd years)

SOC 35305 - Evidence and Investigation (3)

This course examines the techniques of investigation and the processing of evidence by the criminal justice system. (F, alt. years)

SOC 35316 - Urban Sociology (3)

Course is designed to provide students with a better understanding of the structure and function of urban areas in society. Examines the dynamic relations of cities, not only in the U.S., but in the Third World. Discussions on urban processes and urban life will cover theoretical approaches and various urban problems such as poverty, ethnic minority concentration, crime in urban settings, and recent developments in urban sociology, including new network approaches to city systems and global cities. Prerequisite: SOC 35101. (S)

SOC 35318 - Social and Cultural Foundations of Personality (3)

This course examines the historical development of youth in Western culture and the status of youth in contemporary American society. Focuses on males and females growing up in America. Prerequisite: SOC 35101. (F, odd years)

SOC 35320 - Delinquency (3)

Theories and causes of delinquency. Examines antisocial behavior and delinquent behavior in gangs. Prerequisite: SOC 35101. (F, odd years)

SOC 35321 - Criminology (3)

Examines the theory and research regarding the biological, psychological, and sociological patterns of criminal behavior. Patterns of property crime, corporate crime, and violent crime will be examined. Prerequisite: SOC 35101. (F, even years)

SOC 35323 - Deviant Behavior (3)

An examination of rule breaking behavior. This course will focus on theories of criminal, noncriminal and organizational deviance. In addition, this class will examine in some detail a variety of deviant behaviors. Included among the forms of deviance addressed are mental illness, sex related deviance, corporate crime, white-collar crime, governmental deviance, organized crime and common crime. Prerequisite: SOC 35101. (S, odd years)

SOC 35330 - Social Stratification (3)

Structures and functions of social inequality and their differential impact on life patterns. Includes theories of stratification, social class identification, social-psychological and structural variables in social mobility, life patterns in each social class and potential for change. Prerequisite: SOC 35101. (F)

SOC 35337 - Race and Ethnic Issues in Modern Society (3)

Designed to develop the student's awareness of his/her own identity in terms of race and ethnicity and to enhance a positive sense and recognition of the different experiences and values of the diverse minority groups within American society. Examines the beliefs and values which are embedded in various types of stereotypes and prejudice. Prerequisite: SOC 35101 (S)

SOC 35375 - Police and Society (3)

This is an introduction to the police in American society. The material is organized around the development and structure of the police as an integral part of the criminal

justice process, with an emphasis on large municipal departments. The course addresses issues such as the tension between the coercive power of the police and the expectation of freedom in American society: the ability of the police, as organized, to deal with crime and disorder; the nature of role expectations and role conflict between the police and the public; the nature and effects of what is called the police subculture, and issues of profiling, stereotyping, prejudice, and corruption. Prerequisite: SOC 35101. (F, even years)

SOC 35380 - Sociology of Health and Illness (3)

This course is designed to explore and investigate the social, cultural, and political aspects of health, illness, and the health care system. Topics in the course include social factors and the meaning of health and illness, medical dilemmas and debates, the self and illness, disparities in health and the health care systems in terms of age, gender, race/ethnicity, socioeconomic status, and alternatives to dominant understandings of health and healing. Prerequisite: SOC 35101. (S, even years)

SOC 35400 - Special Offering (1 to 4)

SOC 35405 - Victimization (3)

This course provides an in-depth examination of crime victims and their association as both causes and effects of criminal activity. Prerequisites: POLS 34205 and SOC 35101. (S, even years)

SOC 35440 - Fundamentals of Social Work Practice (3)

Examines current private and public social welfare policy, organization, function and the historical development in relation to human need. Prerequisite: SOC 35101. (S)

SOC 35443 - Family Problems in Modern Society (3)

Course deals with problems that occur as a result of societal pressures and inadequate functioning within the family system. The class will choose specific topics of study from the following areas: alcoholism, violence, incest, dual career, single-parent, step-parent, divorce, death and others. Current literature will be read in lieu of a text. Prerequisite: PSYC 08330. (S)

SOC 35450 - Research Methods in Social Sciences (3)

An introduction to the scientific method as it is applied to social and behavioral research. Course content includes a study of basic research issues and research strategies utilized by social and behavioral researchers. Basic issues covered include research ethics, causality, the relationship between theory and research methods, and discussion of the differences between scientific social analysis and nonscientific social analysis. Quantitative survey strategies will be emphasized but unobtrusive methods and experimental designs will also be introduced. Prerequisite: SOC 35101 and MATH 17114. (F)

SOC 35455 - Sociological Theory (3)

A survey of the major theories of society from the classic positions through the present with special emphasis on contemporary theories. Prerequisite: SOC 35101. (S)

SOC 35460 - Key Issues in

Sociological/Anthropological Theory (3)

Critical examination of status of theory and research involving key issues of contemporary knowledge in sociology/anthropology. Prerequisite: SOC 35101 or SOC 35108. Repeatable for new topic.

SOC 35479 - Independent Study in Sociology/Anthropology (1 to 3)

Directed readings and/or experiential contacts involving an in-depth probe of an area of sociology or anthropology and culminating in a written project. Students wishing to enroll need to prepare a short plan of study to be placed on file. Prerequisites: SOC 35101 and a minimum of 13 hours in sociology and consent of the chairperson. Repeatable for new experience. (F, S, SS)

SOC 35495 - Field Experience/Internship in Sociology/Social Work/Corrections (3)

Provides direct contact with helping agencies and paraprofessional experiences. Students will apply knowledge from behavioral science courses. Prerequisites: SOC 35101, completion of 15 hours in sociology courses and instructor approval. Repeatable for new experience. (F, S, SS)

SOC 35500 - Special Offering (1 to 4)

SOSC - Social Science

SOSC 36201 - Social Science Research

Methods (3)

This course introduces students within the Criminology and Emergency and Disaster Management majors and minors to basic research methods for the social sciences, including understanding variables, analysis, qualitative and quantitative methodologies. This course is required for the Comprehensive Major in Criminology, but may be taken by those interested in social science methods. Prerequisites: Either POLS 34205 or SOSC 36301 and MATH 17114.

SOSC 36301 - Introduction to Disaster Response and Recovery (3)

This course provides a broad introduction to the field of emergency management. It focuses on the different types of hazards, the individuals and agencies involved in response and recovery operations, human behaviors in disaster situations, hazard detection, warning, evacuation and sheltering, care for the injured, dead, and distressed, management of media relations, donations and volunteers, methods for facilitating recovery and mitigation, and the role of technology. (F, S)

SOSC 36302 - Principles of Humanitarian Relief (3)

An examination of the principles, practitioners, and practices of humanitarianism since 1863 with special emphasis on the United States. This course provides students with historical, theoretical, and practical understanding of humanitarianism in the modern world. (S)

SOSC 36450 - Homeland Security and Defense (3)

This is a core course in the interdisciplinary major and minor in Emergency and Disaster Management. America has been practicing various types of homeland security since the establishment of the country. However, the current concept of homeland security and the establishment of a formal Department of Homeland Security are direct results of the terrorist attacks of September 11, 2001. This course examines homeland security (and to a lesser extent homeland defense) from both a technical view and through a critical lens. The foundation of the course is the application of higher order and critical thinking skills.

SOSC 36480 - Methods in Secondary School Social Sciences (3)

A course for prospective teachers in the social sciences stressing materials, methods and techniques in teaching social studies in terms of the needs and problems of secondary education. This course must be taken before student teaching. Prerequisite: Admittance to Teacher Education. (F)

SOSC 36490 - Internship in Emergency and Disaster Management (1 to 3)

A supervised internship in an approved experience in crisis response management including preparation of a formal written report. Credit will vary according to the time spent and type of activity. Instructor's permission and prearrangement are required. Repeatable for new experiences.

SOSC 36491 - Field Experience in Emergency and Disaster Management (1 to 3)

A supervised field experience in an approved exercise in crisis response management including preparation of a formal written report. Credit will vary according to the time spent and type of activity. Instructor's permission and prearrangement are required. Repeatable for new experiences.

SOSC 36492 - Independent Study in EDM (1 to 3)

Offered by special arrangement and petition approved by the student's advisor, the instructor involved and the department chairperson. Repeatable for up to 6 hours.

SOSC 36493 - Special Topics in Emergency and Disaster Management (1 to 9)

Courses which are offered on only one occasion or variable issue-oriented course which have the content described in the title. Credit and prerequisites as announced. Repeatable up to 15 credit hours for new topics.

SOSC 36499 - Independent Study in Emergency and Disaster Management (1 to 3)

A supervised independent study in an approved research project or exercise in emergency and disaster management including preparation of a formal written report. Credit will vary according to the time spent and type of activity. Instructor's permission and prearrangement are required. Repeatable for new topic areas.

SOSC 36500 - Special Offering (1 to 3)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable for new topics.

THEA - Theatre

THEA 43101 - Theatre Appreciation (3)

An introductory course surveying the aesthetic process by which plays are translated into theatrical terms and projected from a stage to an audience, including play analysis, acting, directing, scene design, costume, makeup and stage lighting. (F, S, SS)

THEA 43201 - Special Topics (1 to 3)

Provides concentrated study in special areas within theatre. Topics vary trimester to trimester. Pre-requisites as announced. Repeatable with topics changing.

THEA 43501 - Special Topics (1 to 3)

Provides concentrated study in special areas within theatre. Topics vary trimester to trimester. Pre-requisites as announced. Repeatable with topics changing.

THEA 43110 - Theatre Foundations (3)

Provides an introduction to the study of theatre, including the play production process, the basic crafts and skills required for both technical theatre and performance, and script analysis. Lab hours are required. (F)

THEA 43200 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

THEA 43210 - Design Principles in Theatre (3)

An introductory course in the theory, process, and techniques of set, lighting, sound, and costume design. Students will study the principles and dynamics of design, the development of a design concept, script analysis from the designer's perspective, and collaborative work. Lab hours are required. (S)

THEA 43211 - Technical Skills: Scenery (2)

Provides theory and practice in basic skills and crafts related to scenery and properties in the theatrical production process. Lab

hours are required. (Rotates every third trimester, excluding summer) (F, S)

THEA 43212 - Technical Skills: Costumes (2)

Provides theory and practice in basic skills and crafts related to costuming in the theatrical production process. Lab hours are required. (Rotates every third trimester, excluding summer) (F, S)

THEA 43213 - Technical Skills: Electrics (2)

Provides theory and practice in basic skills and crafts related to lighting and sound in the theatrical production process. Lab hours are required. (Rotates every third trimester, excluding summer) (F, S)

THEA 43221 - Drafting (3)

Introduces the student to drafting rules and procedures. Students will begin the trimester with hand-drafting (paper pencil) work and will move on to basic 2D CAD skills using the program VectorWorks. (F, alt. years)

THEA 43222 - Advanced Drafting (3)

Building upon skills acquired in THEA 43221 Drafting, the student will continue with advanced 2D projects, and will be introduced to 3D modeling/rendering using the CAD program VectorWorks. Prerequisite: THEA 43221 Drafting (S, alt. years)

THEA 43225 - Oral Interpretation and Textual Analysis (3)

Introduces the student to principles of literary analysis and techniques of oral interpretation as the foundation for all performance experiences. (S)

THEA 43230 - Acting (3)

Provides training in fundamental principles and techniques of modern acting. Emphasis is given to the formation and development of the actor's imagination, intellect, and overall working process. Prerequisite: THEA 43225 or permission of instructor. (F)

THEA 43235 - Theatre Voice and Movement (3)

A survey of and practice with multiple theatre movement and voice theories designed to develop student awareness and skill related to the body's expressive potential. Prerequisite: THEA 43230 or permission of instructor. (S, alt. years)

THEA 43258 - Stage Makeup (3)

Acquaints the student with basic principles of the art and technique of makeup and assisting the actor in the development and projection of his or her character on stage. (F)

THEA 43305 - Independent Practicum in Theatre (1)

Involves focused and mentored participation in various practical aspects of play production and/or performance; may be repeated for a total of four semester hours for further mastery. (F, S)

THEA 43316 - Playwriting (3)

Composition or original short plays, dramatic scenes and monologues. The course provides an examination of the elements, discipline and art of playwriting through analysis of established plays and creation of original short plays, dramatic scenes and monologues. Cross-listed as ENGL 10316 Creative Writing: Playwriting. Prerequisites: ENGL 10210 Introduction to Creative Writing or THEA 43225 Oral Interpretation and Text Analysis or permission of instructor.

THEA 43330 - Advanced Acting (3)

Concentrated study in character analysis and acting methods. Prerequisite: THEA 43230 or permission of instructor. (S, alt. years)

THEA 43335 - Acting Period Styles and Techniques (3)

Provides training in the performance of character roles from various periods of dramatic literature and genres. Prerequisite: THEA 43230 or permission of instructor. (S, alt. years)

THEA 43354 - Stage Lighting (3)

Concerns the role that lighting has to play in production, the lighting designer's place in the production process and the procedures involved in designing lighting for stage. Prerequisite: THEA 43110 and THEA 43213 or permission of instructor. (F, alt. years)

THEA 43373 - Directing (3)

Discusses the basic function of a director in the production of a play including selection, interpretation, composition, movement, characterization, rhythm, design concept and actor training. Prerequisites: THEA 43110 and THEA 43230 or permission of instructor. (F)

THEA 43383 - Stage and Theatre Management (3)

This course will explore the duties, responsibilities, and technique of modern stage and theatrical managers. Prerequisite: permission of instructor. (S, alt. years)

THEA 43391 - Costuming (3)

Examines the use of clothing and stage costumes by major periods through style and design. Prerequisite: THEA 43110 and THEA 43212 or permission of instructor. (S, alt. years)

THEA 43395 - Scene Design (3)

Provides the student with a basic knowledge of the techniques and methods for designing scenery for the theatre, opera, musical, ballet and television. Prerequisites: THEA 43110, THEA 43211, THEA 43221, or permission of instructor. (S, alt. years)

THEA 43400 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

THEA 43401 - Special Topics (1 to 3)

Provides concentrated study in special areas within theatre. Topics vary trimester to trimester. Prerequisites as announced. Repeatable with topics changing.

THEA 43407 - History of Theatre I (3)

An examination of theatre's evolution from its origins through 1700 as a reflection of and influence on society. (F)

THEA 43408 - History of Theatre II (3)

An examination of western theatre trends from the 18th to the 21st century as a reflection of and influence on society. (S)

THEA 43426 - Interpreter's Theatre (3)

Provides study and practical application in selecting and adapting literature for group reading. Culminates in a public performance. Prerequisite: Permission of instructor. (F, alt. years)

THEA 43440 - Preparing Repertory (3)

Provides instruction and training in the methods required for preparing a repertory theatre season. May be repeated for a total of nine semester hours for further mastery. (SS)

THEA 43445 - Summer Repertory Theatre (3)

Provides instruction and training in the various activities involved in the operation of a repertory theatre company. May be repeated for a total of nine semester hours for further mastery. (SS)

THEA 43460 - Creative Dramatics (3)

Introduces the methods, techniques, and rationale for teaching and using creative dramatics activities with students from pre-school through secondary grades. (S, alt. years)

THEA 43468 - Internship in Theatre Performance (1 to 3)

Professional experience in theatre performance. The particular interests of the students are addressed through practical application with theatre practitioners. Prerequisite: Permission of instructor. Repeatable for new experience.

THEA 43469 - Internship in Technical Theatre (1 to 3)

Professional experience in technical theatre. The particular interests of the students are addressed through practical application with theatre practitioners. Prerequisite: Permission of instructor. Repeatable for new experience.

THEA 43497 - Theatre Capstone (3)

Concentrates on the development of the theatre professional. Topics include ethics; career planning strategies; internships, graduate school and advanced training opportunities; union membership; parallel industry careers; and emerging trends in the performing arts. This course includes a formal presentation of the student's professional portfolio and preparation for public performance or exhibition of research, methods and practices comprising the student's area of emphasis in theatre (senior project). Prerequisite: Advanced standing and permission of department chairperson. (S)

THEA 43499 - Senior Project (1)

A public performance or exhibition of materials comprising the student's area of emphasis in theatre. Prerequisites: THEA 43497 or concurrent enrollment; must meet the current departmental cut score(s) on the current standardized general education test(s) (contact the department office for specific information), and permission of the department chairperson. (F,S)

THEA 43500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. Repeatable with topics changing.

THEA 43509 - Advanced Theatre Production (1 to 3)

Involves a practical approach to the art of producing a play. Specialized elements in mounting a play for production are discussed, relating to the specific needs of the students enrolled. The course culminates in a public performance. Repeatable for further mastery. (SS)

THEA 43572 - Independent Study in Acting (1 to 2)

Provides individualized, in-depth study in acting. This study is intended to develop and theoretically apply various principles of theatre arts to educational and professional theatre depending on the needs of the students. Repeatable with topics changing.

THEA 43573 - Independent Study in Directing (1 to 2)

Provides individualized, in-depth study in directing. This study is intended to develop and theoretically apply various principles of theatre arts to educational and professional theatre depending on the needs of the students. Repeatable with topics changing.

THEA 43574 - Independent Study in Dramaturgy (1 to 2)

Provides individualized, in-depth study in dramaturgy. This study is intended to develop and theoretically apply various principles of theatre arts to educational and professional theatre depending on the needs of the students. Repeatable with topics changing.

THEA 43575 - Independent Study in Technical Theatre (1 to 2)

Provides individualized, in-depth study in technical theatre. This study is intended to develop and theoretically apply various principles of theatre arts to educational and professional theatre depending on the needs of the students. Repeatable with topics changing.

VOED - Career Education

VOED 02193 - FAA Ground School with Flight (3)

This course is designed to give the student opportunity to complete 35 hours of ground school training in order to qualify for the Federal Aviation private pilot examination. The student will be required to complete 10 hours of flight instruction and/or solo. (Cost depends upon aircraft used.) (F, S, SS)

VOED 02195 - Private Pilot Certification (2)

This course is a continuation of VOED 02193, with flight training to complete flying requirements for the Federal Aviation private pilot's license. Prerequisite: VOED 02193 or equivalent. (Cost depends upon aircraft used.) (F, S, SS)

VOED 02500 - Special Offering (1 to 4)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. (F, S, SS)

VOED 02501 - History and Philosophy of Career Education (2)

The philosophy, evolution of, and principles of career education. Practices and trends related to legislation and the relationship of career education to the total plan of public education.

VOED 02503 - Implementing Career Education (2)

The establishment and operation of career education programs including organization, administration, supervision, curricula and evaluation.

VOED 02505 - Assessment in Career Education (2)

Beginning with the end in mind, investigate what students should know and be able to do when leaving their course of study. Examine and design usable summative and formative assessments.

VOED 02506 - Career Education Curriculum (2)

Designed to provide career education teachers with knowledge of the problems, techniques and procedures in the selection and organization of career education subject matter for instructional purposes in day, part-time, and evening schools and classes. (S)

VOED 02508 - Guidance in Career Education (2)

Designed to acquaint the student with an understanding of principles, methods and procedures of career education guidance. Describes plans for developing a program to assist youth in preparation for entering upon and making adjustments in career choices.

VOED 02510 - Coordination of Cooperative Education (2 to 3)

Selection, development, and presentation of materials used in supervision of students in the work place. Includes methods, techniques, evaluation, current practices, and trends in teaching and supervising of COE.

VOED 02511 - Coordination of Career Education Practicum (1)

Supervised practicum experience in cooperative education program that supports a cooperative/work internship program for its students. Includes job placement strategies, curriculum development, and supervision of students in supervised work experiences.

VOED 02515 - Instructional Methods for Career Education (3)

An introduction and modeling of successful teaching assessments and data to improve instruction and classroom management.

VOED 02520 - Special Investigations in Career Education (1 to 3)

Independent study in career education where the selected problems to investigate could include topics such as methods, control, publicity, finance and equipment in the varied disciplines in career education. This course may be repeated with a change in topic. (F, SS)

VOED 02540 - The Adult Learner (3)

Organization and administration of programs for adults. A study of teaching procedures, recent trends in subject matter, materials, techniques and evaluation as applied to adult education. This course provides opportunity for observation and participation in adult programs.

Appendix

Facilities

Administration Building

Built in 1907-1910, this Tudor Revival structure with its four towers is the landmark of the campus. In 1979, a fire destroyed the north wing and the west wing, the latter of which is largely restored. In addition, the entire second floor and a portion of the third floor have been extensively renovated. This historic building houses Admissions, Career Services, Graduate Office, Registrar's Office, Scholarships and Financial Assistance Office, Cashiering, Bursar's Office, and other administrative and student services offices. It was added to the National Registry of Historic Places in 2010.

Alumni House

Located on College Avenue, this structure is owned by the non-profit Northwest Foundation and houses the Office of University Advancement and Alumni Relations. This former private residence is the social center for alumni and friends of Northwest.

Everett W. Brown Education Hall

Located across from the J.W. Jones Union, this Neo-Gothic ornamented structure was renovated and rededicated in 1987 to Everett W. Brown, an alumnus, long-time staff member, eight-term member of the Missouri House of Representatives and former appointed member of the Missouri Coordinating Board for Higher Education. Originally dedicated in 1939, Brown Hall houses the School of Education, as well as the Horace Mann School for elementary education.

Center for Innovation and Entrepreneurship (CIE)

Construction of the Center for Innovation and Entrepreneurship was completed in 2009. The structure includes two connected facilities: a business incubator on the west and a combined academic/teaching/research space on the east. The Incubator houses commercial research laboratories, offices and small scale production space for several businesses. The Small Business & Technology Development Center is also housed in the building. The academic space houses classrooms, faculty offices, and applied research labs.

Colden Hall

Completed in 1959, this V-shaped structure is named for Charles J. Colden, the first president of the Board of Regents. This major academic structure was completely renovated in 1996-1997 providing environments for technology to supplement and facilitate learning, and with flexibility for advancements in the future. Located on the second floor are the faculty and staff offices for Business; Computer Science and Information Systems; English; and Behavioral Sciences.

Mabel Cook Recruitment and Visitors Center

Located at the southeast entrance to campus, the center is named for a graduate of the Department of Family and Consumer Sciences, who later served on the faculty and chaired the department. As a student, Mabel Cook initiated the idea for Kappa Omicron Phi, now a national family and consumer sciences honor society called Kappa Omicron Nu. The house is now used as a visitors center for prospective students and their families as well as housing Admissions personnel and Student Ambassadors.

Raymond J. Courter College Park Pavilion

The Pavilion in College Park located west of the Ron Houston Center for the Performing Arts was completed in 2005. It includes a 5,600 square foot outdoor amphitheatre with stage, theatrical lighting, storage and restrooms for University and community events. The Pavilion is named in honor of Raymond Courter whose influence over 37 years of service and as chief financial officer guided master planning for capital construction projects resulting in additions or improvements to nearly 30 campus buildings and structures.

DeLuce Fine Arts Building

Located on the south side of the campus, this circular structure was dedicated in 1965 and honors the long-time faculty member and nationally-recognized leader in art education, Olive DeLuce. DeLuce contains studios, the DeLuce Gallery, classrooms, rehearsal rooms, and faculty and staff offices for Art and Music.

The 549-seat **Charles Johnson Theater**, housed in DeLuce, is named for the first chairman of the Spring Festival of the Arts, which evolved into the year-long Northwest Encore Performances. The Charles Johnson Theater also has a two-manual, 21-rank McManis pipe organ.

Fire Arts Building

This triangle shaped building constructed in 2004-2005 is located to the southeast of the DeLuce Building. It houses ceramics, sculpting and welding art classes.

Foster Fitness Center

In March 2014, the Northwest Board of Regents approved the renaming of the former Foster Aquatic Center to the Robert and Virginia Foster Fitness Center. The Fitness Center consists of nearly 20,000 square feet of open floor space accommodating state-of-the-art cardio and weight lifting machines, a human performance lab and classroom space. In addition, the facility houses a specified area for aerobics, spinning, yoga, and various fitness courses. A fitness mezzanine housing cardio equipment with windows providing natural lighting overlooks the facility.

Garrett-Strong Science Building

This building on the north side of campus honors two former department chairmen: William T. Garrett, Department of Biological Sciences; and J. Gordon Strong, Department of Chemistry and Physics. Completed in 1968, Garrett-Strong contains laboratories, lecture halls and classrooms, as well as faculty and staff offices for Biology; Chemistry; Physics; Geology; Geography; and Mathematics. The entire building was renovated in 2000-2001 resulting in a state-of-the-art facility. The botany laboratory and greenhouse building were added in 2002.

Thomas W. Gaunt House

Located across from the Alumni House on the south end of campus, the Gaunt House was constructed in 1870 by a retired sea captain whose tree nursery was located on what is now the main campus. The Classical Revival-style structure has been the home of University presidents since the founding of the institution in 1905, and it is listed in the National Register of Historic Places. In 1999-2000, a new addition was added that expanded the kitchen to include daily family use and a food preparation area for large group gatherings. A new outside patio was also added. Extensive renovations to the entire house were completed in 2009-2010.

Ron Houston Center for the Performing Arts

Built in 1984, the Ron Houston Center for the Performing Arts is named for Ron Houston, whose generosity led to a significant expansion of performance facilities available to Northwest theatre students. The center also includes the **Mary Linn Auditorium**, named after Mary Casteel Linn, a former University Regent and dedicated patron of the arts. The 1,099-seat theater can accommodate a full symphony orchestra, or it can be scaled down for more

intimate productions. The Houston Center also houses a “black box” theater as well as the offices and production shops of University Theatre. A **Studio Theatre** addition connected to the Houston Center for the Performing Arts on the southeast side opened in 2008. The Studio Theatre functions as a drama laboratory and contains state-of-the-art technology, including an articulated lighting grid, a makeup lab/classroom and a new lighting and sound control system. The Studio Theatre seats up to 250 people, depending on how the space is configured, and provides a more intimate environment for student and departmental performances.

J.W. Jones Union

The opening of this structure in the center of campus in 1952 fulfilled a long-time dream of J.W. Jones, sixth president of the University. In 1966, an addition on the north more than doubled the size of the building. During 1998-2000 the entire facility underwent a complete renovation and reconfiguration of spaces. Dining services, including Bearcat Commons, underwent renovations during the summer of 2013.

Alfred McKemy Center for Lifelong Learning

Located north of the Garrett-Strong Science Building, this structure was completed in 1977 and is named after a former member and president of the Board of Regents. Completely renovated in 1999, it houses the Math Skills Laboratory which is used to assist students in improving their mathematics literacy. Contained within are one distance learning classroom and one room for teleconferencing.

Memorial Bell Tower

Completed in 1971 and refurbished in 1989, and completely renovated in 2004, this 100-foot high structure located in the center of campus dominates the campus vista. The Bell Tower was constructed from funds provided by University friends and alumni and has brass memorial and commemorative plaques, an electric carillon and displays the University seal as it has evolved with name changes from Normal School to University.

Ryland Milner Complex

Named for long-time coach, athletic director and alumnus Ryland Milner, the Complex contains two gymnasiums, tennis courts and Bearcat Stadium, all located on the southwest side of campus.

Uel W. Lamkin Activity Center, named for the University's fifth president, was first opened in 1959. During the 1993-1994 academic year, the facility was the recipient of a \$6 million renovation and enlargement. Included was the total renovation of the existing structure and the construction of north and south additions. The north expansion, called the Northwest Student Recreation Center, houses a suspended jogging track, three basketball courts and five racquetball/handball courts. Included in the south addition is the Fitness Center on the lower level, a lobby on the main level, and offices and meeting rooms for coaches on the top level. The area where basketball and volleyball competition is held has been named the Bearcat Arena. The Arena wood floor was replaced in 2011. Also housed in the Activity Center are classrooms and ticket and concession areas on the main level. The lower level has weight-lifting, dressing rooms and athletic training facilities.

Martindale Hall, opened in 1926, was the original University gymnasium. Remodeled and renovated in 1973-1975, Martindale honors Nell Martindale Kuchs, a faculty member and early leader in women's athletics. Martindale has a regulation-sized basketball court, replaced in 2011, which can be split for two separate activities such as gymnastics, dance and volleyball. The building also contains classrooms, physical education faculty offices, a dance studio and women's dressing rooms.

Bearcat Stadium is a playing field with permanent seating accommodating 6,200 spectators and stadium capacity of 7,500. The field is surrounded by the **Herschel Neil Track**, a resilient all-weather track named after the 1930s Northwest student who held numerous NCAA records. During calendar year 2000, the east grandstand and southeast ticket houses were completely renovated to enhance customer services. In 2002-2003, the west grandstand and pressbox

were replaced by an enlarged facility featuring chairback, railback and traditional seats, 10 suites, and an upper media/coaching area and filming tower. A new scoreboard was also added with video replay capabilities. The stadium was renamed in 2004 from Rickenbrode to Bearcat Stadium to honor the Northwest family members who helped to fund the replacement structures and additional facilities. In 2007 the natural turf field was replaced by artificial turf and officially named Tjeerdsma Field to honor the success of Melvin L. Tjeerdsma, the former head football coach. Lights were also added to allow for night use.

Athletic Grounds Support Building, constructed in 2006-2007, is located west of the Ron Houston Center for the Performing Arts. It houses athletic field equipment, paint supplies, lawn equipment, and employee support functions.

The **Frank W. Grube Tennis Courts**, completed in 1981, are named after the long-time Department of English chairperson and first varsity tennis coach of the University.

Bearcat Field is the home of the Bearcat baseball team and is located on the west campus, and has a grass infield, a scoreboard and press box facility.

A **Softball Field** was constructed in 1996 near Phillips Hall on the west side of campus. Home to the Bearcat softball team, the dirt infield is made from aqualime, a textured soil that allows moisture to go through to the ground.

Mozingo Outdoor Education Recreation Area (MOERA)

A 315-acre rural lake front tract of land located at Mozingo Lake, MOERA is designed for student and community education/recreation activities. Facilities include a challenge course consisting of an Alpine tower, Odyssey III tower, Carolina climbing wall, and group dynamics low element obstacle stations; courtesy dock; a trap and skeet range which can also be used for target archery; a biology research area; a small astronomy observatory and outdoor telescope viewing area; and biology/astronomy and health, physical education, recreation and dance department working/storage buildings. A mixture of walking trails and gravel roads exist throughout the acreage.

B.D. Owens Library

Named for the eighth president of the University, this limestone and glass structure, located near academic facilities as well as residence halls, opened in 1983. With more than 100,000 square feet of space, Owens Library is designed to meet the library needs of the University well into the future, and to accommodate technological advances in information retrieval systems. Included in Owens Library are personal computers connected to the Electronic Campus network, including a multitude of web-based databases, group and private study rooms, and comfortable seating arranged throughout the open stacks. The library also houses Novel Grounds Coffeehouse featuring Starbucks, which opened summer 2013.

Residence Halls, Suites and Apartments

Located in four areas on campus are 17 structures providing variety in living arrangements and common spaces for students. Residence halls offer integrated living/learning communities well suited for freshmen acclimating to college life. Suites provide a small group living environment desired by sophomore and junior students. Apartments offer a transition to independent living for junior, senior and graduate students.

The **West Complex** includes four **High Rise Residence Halls** that are seven-story buildings located on the west side of campus. Dieterich Hall (for H.R. Dieterich, education faculty), Millikan Hall (for Chloe Millikan, education faculty), Franken Hall (for Katherine Franken, psychology faculty), and Phillips Halls (for Homer T. Phillips, education faculty) are all coed residence halls. **Tower Suites West and Tower Suites East** located between Phillips and Franken were completed in 2004.

The **North Complex** contains Cooper Hall (for Albert H. Cooper, director of extension), and Douglas Hall (for 24-year Regent R.L. Douglas), which are coed residence halls. Cooper Hall

serves as the residence and office location of the Missouri Academy of Science, Mathematics and Computing.

The **South Complex** contains Wilson Hall (for Lon Wilson, dean of men), Richardson Hall (for fourth University president Ira Richardson), and Cook Hall (for T.H. Cook, history faculty). During 1999-2000, these connected structures were completely redesigned and renovated to eliminate the traditional dormitory arrangements.

The **East Complex** contains Hudson Hall (for the first woman registrar, Nell Hudson), Perrin Hall (for the first dean of women, Alice R. Perrin), and Roberta Hall (for Roberta Steel, who lost her life after a 1951 residence hall explosion). Roberta Hall was completely renovated during the 1993-94 academic year. Hudson and Perrin Halls were demolished and rebuilt in 2005-2007 to create a modified dormitory arrangement.

Forest Village Apartments (Hawthorne, Sycamore and Willow) were completed in 2004 and are located on the north side of Centennial Drive and include a community building providing lounges and meeting facilities for apartment residents, a convenience store, mailboxes and residential life staff offices. The apartments are fully furnished; consist of two- and four-bedroom styles; include a living room, storage closets and a small kitchen and dining space. These units also contain washer, dryer, refrigerator, dishwasher, garbage disposal, microwave, stove and cable TV.

Renewable and Alternative Energy Facilities

In 1982, the University's 72 year-old Power Plant was retrofitted to utilize wood chips, a renewable energy source, along with natural gas and oil. In 1993, the Biomass Processing Building was constructed on the west side of campus to produce paper pellets made from discarded clean paper and corrugated paper. Beginning in 2000, under U.S. Patent Number 6,49,694 the "animal waste to energy production" process using solid animal waste and dry agricultural feedstock from the University Farm operations was initiated to create a virtually odor-free fuel pellet. Along with wood chips and paper pellets this fuel source has reduced the University's dependence on fossil fuels by up to 80 percent. Together, these buildings are known as the Renewable and Alternative Energy Facilities.

Jon T. Rickman Electronic Campus Support Center

In 2003 the Electronic Campus Support program staff and operations moved into the former Missouri National Guard Armory built on campus in 1951 when the Missouri National Guard moved to a newly constructed community facility. In 2008 the facility was renamed to honor Dr. Jon Rickman whose long years of service and dedication to continuously advance the electronic learning and working environment for all students, faculty, and staff established Northwest as the Electronic Campus.

The Station

Opened in 1966 as the Taylor Commons dining hall (more recently known as The Conference Center), this facility provides community building lounges and meeting space for West Complex residents, a convenience store, Papa John's Pizza, mailboxes and residential life staff offices. It also serves as a conference center with movable room dividers and state-of-the-art audio/visual capabilities for teleconferences, seminars, meetings and workshops. It houses the Textbook Services Center and a bakery. Henry Kirby Taylor was the third president of Northwest.

Support Services Complex

Located north of the High Rises, Tower Suites and The Station are structures providing operational space for the majority of the campus physical plant services.

The **Facilities Services Buildings** erected between 2005 and 2009 and house the administrative team as well as the maintenance, key, sign and carpentry shops.

The **Support Services Building** was completed in July 2014 and houses the University Police, Purchasing and Materials Distribution Center (built in 2002). The University Police Department

facility offers a large dispatch center which is also built as a storm shelter. Additionally, the new building includes a large conference room, interview rooms, a finger-printing station, evidence rooms, an armory for weapon and equipment storage, and men's and women's locker rooms. Purchasing provides procurement of materials and services for both internal and external customers. Materials Distribution Center is the warehouse facility that houses central stores, central receiving, the moving crew and is the site for the University's surplus auctions.

Thompson-Ringold Building

The building, located north of Wells Hall, was built in 1931 and during the years has housed the Industrial Arts programs; Kenneth Thompson and Howard Ringold were long-time faculty of that department. Now it houses the Mail/Copy Center, the Adult Education Literacy program and the Regional Professional Development Center.

Valk Center

Completed in 1970 and named for Donald N. Valk, long-time chair of the Department of Technology, the building during 1993 became the home of the Department of Agricultural Sciences following the closing of the Department of Technology. Facilities within the building include faculty offices, lecture rooms, a computer laboratory, and laboratories for plant science, animal science and soil science. The lower level of Valk used formerly for warehouse storage was renovated in 2008-2009. Enhancements include new building entries, exterior stairwells, classrooms, faculty offices, student gathering and display areas for the Humanities and Social Sciences Department.

Wellness Services

Built in 1997, this structure with its pitched roofs in interlocking planes is a distinctive addition to the northwest corner of the campus. It provides a user-friendly environment in which to meet the health care needs of Northwest students living on and off campus. In 2006-2008 a new addition was added to house the Personal Development and Counseling Services and University Wellness Services in the same facility. The facility was renamed to reflect the comprehensiveness of these programs.

R.T. Wright Farm

The 448 acres two miles north of campus provide laboratory experiences in agronomy, animal and dairy science, and horticulture. The farms are named after R.T. Wright, former chairperson of the Department of Agricultural Sciences and a recognized leader in agricultural education.

A modernized swine complex and enhanced dairy were built in 2000. A solid animal waste separator, fluid lagoon and blending operation were incorporated in the design to facilitate the blending of solid waste with other farm feedstocks for the production of a pelletized alternative fuel used in the University Power Plant. This comprehensive approach to farm management provides a hands-on laboratory for students in the School of Agricultural Sciences.

Governance

The Board of Regents

Under the powers prescribed by law, the Board of Regents functions as the policy-making body of Northwest Missouri State University. The eight-member Board of Regents is entrusted with the formulation of the general, educational and financial policies of the University. In addition, the Board has the power to carry out any further functions which are permitted by its bylaws or by the articles of incorporation.

Northwest Leadership Team (NLT)

The NLT leads Northwest's strategic course and charts daily operations by providing executive leadership for all organizational operational portfolios. Additionally, the NLT is the interface between the university faculty, staff, and students and the Board of Regents.

Extended Leadership Team (ELT)

The ELT not only helps to chart Northwest's strategic course, but it also contributes to the shaping of daily operations. The ELT ensures cross-departmental cooperation, transparency, and widespread input and sharing of information.

Faculty Senate

The Faculty Senate is the representative body of the faculty. According to the Faculty Constitution, "The Faculty Senate is authorized to formulate policy in the areas of responsibility assigned to the faculty by the Board of Regents or the President and to advise appropriate authorities in other areas assigned to the faculty by the Board of Regents." In addition, "The Faculty Senate is authorized to provide a forum for discussion of matters which are of concern to the faculty and to make recommendations concerning their findings on these matters to the appropriate body or authority."

Administrative/Professional Council (A/P Council)

A/P Council serves as the liaison between the administrative and professional staff, administration, faculty, support staff and students. The council is a recognized part of the University and works cooperatively with other groups for recommendations, requests, and pertinent information to the President.

Deans Council

The mission of the Deans Council is to facilitate the development and implementation of a shared vision with our faculty colleagues so that the academic core at Northwest Missouri State University meets the needs of the constituencies it serves.

Council on Teacher Education

The Council is composed of one member from each School/department's designated teacher education faculty with two teacher education faculty members from the School of Education, one graduate education student and two undergraduate education students. The Council is responsible for establishing standards, curriculum, and degrees in teacher education and in teacher education admission and retention policies.

Graduate Council

The Graduate Council, made up of elected graduate faculty members, graduate students and the dean of the Graduate School, recommends all policies and programs involved with graduate study. It coordinates, with the Faculty Senate, all recommendations for approval of upper-division undergraduate courses which may also be approved for graduate credit if taken by eligible graduate students. The Graduate Council also reviews recommendations from the Council on Teacher Education as these relate to advanced programs in teacher education.

Student Senate

Student Senate is the representative governing body of the Student Government Association, which includes all students. The Senate serves students in many capacities: proposing beneficial changes in University policies, acting as a liaison between students and administration, screening the formation of new organizations, supervising campus-wide elections and approving fund-raising activities on campus.

Support Staff Council

Support Staff Council serves as the liaison between the support staff, administration, faculty and students. The council addresses campus-wide issues and raises money for scholarships which are awarded to support staff employees' dependents.

University Committees

The committees organization provides faculty, students and support and administrative staffs an opportunity to participate in the affairs of the University. The Northwest Leadership Team, in cooperation with the Faculty Senate, coordinates the University committee assignments.

Northwest Missouri State University Presidents

John Jasinski	2009-
Dean L. Hubbard	1984-2009
B.D. Owens	1977-1984
Robert P. Foster	1964-1977
J.W. Jones	1945-1964
Uel W. Lamkin	1921-1945
Ira Richardson	1913-1921
Henry Kirby Taylor	1909-1913
Homer Martien Cook	1907-1909
Frank Deerwester	1906-1907

University Personnel

Northwest Leadership Team

President	John Jasinski, Ph.D.
Provost	Timothy Mottet, Ed.D.
Vice President of Finance	Stacy Carrick, M.B.A.
Vice President of Information Technology	
Vice President of University Advancement	Michael Johnson, B.S.
Vice President of Student Affairs	Matt Baker, Ed.D.
Vice President of University Marketing & Communications	Brandon Stanley, B.S.
Vice President of Human Resources	Nola Bond, B.S.
Director of Athletics	Melvin Tjeerdsma, M.S.Ed.

Academic Administrative Officers

Provost	Timothy Mottet, Ed.D.
Vice Provost	
Associate Provost of Undergraduate Studies and Dean of College of Arts and Sciences	Michael Steiner, Ph.D.
Associate Provost of Graduate and Special Programs	Gregory Haddock, Ph.D.
Associate Provost of Enrollment Management & Student Academic Success	Beverly S. Schenkel, M.B.A.
Director of Northwest-Kansas City	Terry Barmann, Ed.D.

Student Services

Associate Directors, Admissions	Tammi Grow, M.B.A. Jeremy Waldeier, M.S.
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Assistant Director, Advisement/ Orientation/ Transfer Affairs	Brad Landhuis, M.S.Ed.
Director, Auxiliary Services	
Bursar	Ashley Greeley, M.S.Ed.
Chief, University Police	Clarence Green, M.S.
Director, Career Services	Joan Schneider, B.S.
Director, Financial Assistance	Charles Mayfield, M.S.Ed.
Assistant Director, Wellness Services-Counseling	Kristen Peltz, M.S.
Assistant Director, Wellness Services-Operations	Evan Rand, M.B.A.
Executive Director of Wellness Services	Gerald W. Wilmes, M.D.
Registrar	Terri Vogel, M.B.A.
Director, Residential Life	Rose Viau, M.S.Ed.
Coordinator, Student Employment	Paula McLain, M.B.A.
Coordinator, Study Abroad	Jeaneth Puriel-Foot, M.A.
Manager, Textbook Services	Teri Tobin, B.S.
Director, International Affairs and ESL Program	Jeffrey Foot, Ed.D.
Director, Multicultural Student Success	Steven Bryant, M.S.
Director, Office of Student Involvement	

Faculty

Abington, Casey (2010)

Assistant Professor—Business
Ph.D.—Kansas State University

Adam, Peter (2008)

Associate Professor—Natural Sciences
Ph.D.—University of California-Los Angeles

Adkins, Joni (2001)

Assistant Professor—Computer Science and
Information Systems
D.B.A.—Anderson University

Akins, Robyn (2009)

Horace Mann/Leet Center Faculty
Ed.S.—University of Missouri-Kansas City

Alexander, Kristina (2003)

Associate Professor—Professional Education
Ed.D.—University of Missouri-Columbia

Allen, Jamison (2012)

Assistant Professor—Agricultural Sciences
Ph.D.—University of Arizona

Badami, Charles (2008)

Senior Instructor—Computer Science and
Information Systems
D.M.—Northwestern University

Baker, Jill (2011)

Instructor—Professional Education
M.S.Ed.—Northwest Missouri State
University

Bandi, Ajay (2014)

Assistant Professor—Computer Science and
Information Systems
M.S.—Mississippi State University

Barnett, Jerrold (1983)

Professor—Behavioral Sciences
Ph.D.—Penn State University

Barr, Rod (2003)

Instructor—Agricultural Sciences
M.S.—Northwest Missouri State University

Baudino, Frank (1994)

Assistant Professor—Library
M.L.S.—Indiana University

Beemer, Rhonda (2015)

Assistant Professor—Health Science and
Wellness
Ph.D.—University of Southern Mississippi

Bell, Scott (2014)

Assistant Professor—Computer Science and
Information Systems
M.S.—Missouri University of Science and
Technology

Bellamy, Michael (1999)

Professor—Natural Sciences
Ph.D.—Kansas State University

Benson, Christine (1997)

Professor—Mathematics and Statistics
Ph.D.—University of Missouri-Kansas City

Benson, Joel D. (1987)

Professor—Humanities and Social Sciences
Ph.D.—Miami University

Beskid, Philip (2014)

Instructor—Communication and Mass Media
B.A.—North Central College

Bhowmik, Tanmay (2015)

Assistant Professor—Computer Science and
Information Systems
Ph.D.—Mississippi State University

Biegelson, Daniel (2012)

Instructor—Language, Literature, and
Writing
M.F.A.—University of Montana

Bilbo, Katheryn (2014)

Assistant Professor—Fine and Performing
Arts
M.F.A.—University of Wisconsin

Binette, Kori (2009)

Senior Instructor—Language, Literature, and
Writing
M.A.—University of Massachusetts-Amherst

Bishop, Lisa (2004)

Instructor—Business
M.A.—Central Missouri State University

Black, Richard (2008)

Assistant Professor—Language, Literature,
and Writing
Ph.D.—University of Tulsa

Blackford, Benjamin (2009)

Associate Professor—Business
Ph.D.—University of Nebraska-Lincoln

Bond, Stancy (2012)

Instructor – Language, Literature, and Writing
M.A.—Northwest Missouri State University

Bradley, Jeff (1990)

Instructor—Natural Sciences
M.S.—Oklahoma State University

Breckenridge, Martha (2008)

Assistant Professor—Fine and Performing Arts
Ph.D.—University of Kansas

Butler, Loren (2000)

Associate Professor—Health Science and Wellness
Ph.D.—University of Arkansas

Campbell, Alisha (2013)

Assistant Professor—Natural Sciences
Ph.D.—University of Tennessee

Campbell, James (2013)

Assistant Professor—Natural Sciences
Ph.D.—Texas Tech University

Carr, John (2015)

Instructor—Humanities and Social Sciences
M.S.—North Dakota State University

Case, Denise (2015)

Assistant Professor—Computer Science and Information Systems
Ph.D.—Kansas State University

Casey, Kimberly (2011)

Assistant Professor—Humanities and Social Sciences
Ph.D.—University of Missouri-St. Louis

Chakraborty, Himadri (2006)

Associate Professor—Natural Sciences
Ph.D.—Jodavpur University

Chandler, Wayne (2000)

Associate Professor—Language, Literature, and Writing
Ph.D.—University of Alabama

Chloupek, Brett (2013)

Assistant Professor—Humanities and Social Sciences
Ph.D.—University of Kansas

Christensen, Summer (2013)

Assistant Professor—Professional Education
Ed.D.—University of South Dakota

Cline, Keely (2014)

Assistant Professor—Behavioral Sciences
Ph.D.—University of Nebraska-Lincoln

Coalter, Terry (2000)

Associate Professor—Business
Ph.D.—University of Texas-Arlington

Collier, Ben (1981)

Associate Professor—Business
Ph.D.—Purdue University

Corson, Mark (1998)

Professor—Humanities and Social Sciences
Ph.D.—University of South Carolina

Creason, Sarah (2008)

Instructor—Behavioral Sciences
M.S. Ed.—Northwest Missouri State University

Daggs, Joy (2012)

Assistant Professor—Communication and Mass Media
Ph.D.—University of Missouri-Columbia

Davis, Ashley (2013)

Assistant Professor—Language, Literature, and Writing
M.S.—Troy University

Dennis, Cathy (2014)

Instructor—Professional Education
Ed.S.—University of Missouri

Dickey, Eric (2009)

Associate Professor—Language, Literature, and Writing
Ph.D.—University of Minnesota

Dieringer, Gregg (2002)

Professor—Natural Sciences
Ph.D.—University of Texas-Austin

Dimmitt, Elizabeth (2008)

Senior Instructor—Behavioral Sciences
M.S.—Northwest Missouri State University

Dorrel, Bryan (2009)

Instructor—Health Science and Wellness
Ph.D.—Rocky Mountain University of Health Professions

Drews, Patricia (1999)

Professor—Humanities and Social Sciences
Ph.D.—University of South Carolina

Dunnell, Rebecca (2002)

Professor—Fine and Performing Arts
D.M.A.—University of North Carolina-Greensboro

Durbin, Lori (1990)

Instructor—Communication and Mass Media
M.H.S.—University of Missouri-Columbia

Edmonds, Carole (1996)

Associate Professor—Professional Education
Ed.S.—Northwest Missouri State University

Edwards, Carla (1997)

Professor—Behavioral Sciences
Ph.D.—University of Missouri-Kansas City

Eiswert, James (1991)

Associate Professor—Humanities and Social
Sciences
Ph.D.—University of Louvain

Eloe, Nathan (2015)

Assistant Professor—Computer Science and
Information Systems
Ph.D.—Missouri University of Technology
and Science

Elston, Mary (2014)

Assistant Professor—Language, Literature,
and Writing
M.A.—University of Texas of Permian Basin

Erickson, Michelle (2004)

Instructor—Business
M.B.A.—Northwest Missouri State University

Euler, Russell (1982)

Professor—Mathematics and Statistics
Ph.D.—University of Missouri-Kansas City

Farlow, Nancy (1989)

Horace Mann/Leet Center Faculty
M.S.Ed.—Northwest Missouri State
University

Farnan, Shantel (2011)

Instructor—Professional Education
Ed.S.—Northwest Missouri State University

Field, Richard (1993)

Associate Professor—Humanities and Social
Sciences
Ph.D.—Southern Illinois University

Fink, Kurtis (1985)

Associate Professor—Mathematics and
Statistics
D.A.—Idaho State University

Flugrad, Deborah (2013)

Instructor—Horace Mann
M.A.Ed.—Baker University

Foose, Alice (2006)

Associate Professor—Health Science and
Wellness
Ph.D.—Indiana University

Ford, Elyssa (2011)

Assistant Professor—Humanities and Social
Sciences
Ph.D.—Arizona State University

Francis, Alisha (2006)

Associate Professor—Behavioral Sciences
Ph.D.—St. Louis University

Freeman, Virgil (2003)

Associate Professor—Professional Education
Ed.D.—University of Arkansas

Fridell, Max (2003)

Associate Professor—Professional Education
Ph.D.—University of Kansas

From, Karen (2009)

Instructor—Health Science and Wellness
M.S.—Kansas State University

Gallaher, John (2003)

Professor—Language, Literature, and
Writing
Ph.D.—Ohio University

Gallaher, Robin (2003)

Assistant Professor—Language, Literature,
and Writing
Ph.D.—Indiana University of Pennsylvania

Gibson, Christopher (1982)

Professor—Fine and Performing Arts
D.M.A.—Eastman School of Music

Gilb, Merlene (2015)

Assistant Professor—Professional Education
Ed.D.—St. Louis University

Gilley, Dawn (2009)

Associate Professor—Humanities and Social
Sciences
Ph.D.—University of Missouri-Columbia

Gordon, William (2011)

Assistant Professor—Professional Education
Ed.D.—University of Missouri-Columbia

Goswami, Arghya (2015)

Assistant Professor—Natural Sciences
Ph.D.—University of Texas-Arlington

Goude, Theodore (1985)

Associate Professor—Humanities and Social
Sciences
Ed.D.—Oklahoma State University

Graves, Christopher (2009)

Assistant Professor—Fine and Performing
Arts
M.F.A.—Brigham Young University

Gregerson Malm, Cheryl (1989)

Associate Professor—Mathematics and Statistics
Ph.D.—University of Nebraska-Lincoln

Gustafson, Jon (2009)

Instructor—Health Science and Wellness
M.S.Ed.—University of Nebraska-Kearney

Haberyan, Kurt (1994)

Professor—Natural Sciences
Ph.D.—Duke University

Haddock, Gregory (1996)

Associate Provost of Graduate and Special Programs
Ph.D.—University of Idaho

Haile, Brian (1997)

Associate Professor—Mathematics and Statistics
Ph.D.—University of Missouri-Rolla

Hardee, Tom (2001)

Instructor—Language, Literature, and Writing
M.A.—Michigan State University

Haughey, Brandy (2014)

Horace Mann/Leet Center Faculty
B.S.—Western Michigan University

Haughey, Joseph (2013)

Assistant Professor—Language, Literature, and Writing
Ph.D.—Grand Valley State University

Hawley, Doug (2014)

Assistant Professor—Computer Science and Information Systems
Ed.D.—University of Missouri-Columbia

Heintz, Christina (1985)

Senior Instructor—Mathematics and Statistics
M.S.Ed.—Idaho State University

Hesse, Brian (2002)

Professor—Humanities and Social Sciences
Ph.D.—London School of Economics and Political Science

Hiatt, Rochelle (1997)

Associate Professor—Behavioral Sciences
Ed.D.—University of Missouri-Columbia

Hobbs, Michael (1993)

Professor—Language, Literature, and Writing
Ph.D.—University of North Texas

Hoffmann, Allison (2008)

Instructor—Business
M.B.A.—Northwest Missouri State University

Hoffmeier, Justin (2014)

Assistant Professor—Mathematics and Statistics
Ph.D.—University of Missouri

Hoilett, Nigel (2013)

Assistant Professor—Agricultural Sciences
Ph.D.—University of Missouri-Columbia

Hollingsworth, Lynda (1982)

Assistant Professor—Mathematics and Statistics
M.S.—Northwest Missouri State University

Hoot, Charles (2015)

Assistant Professor—Computer Science and Information Systems
Ph.D.—University of Illinois-Urbana

Hung, Ming-Chih (2003)

Professor—Humanities and Social Sciences
Ph.D.—University of Utah

Immel, Patrick (2003)

Associate Professor—Fine and Performing Arts
M.F.A.—Southern Illinois University at Carbondale

Islam, Rafiq (1997)

Professor—Natural Sciences
Ph.D.—Kyushu University

Jacobson, Cris (2014)

Instructor—Behavioral Sciences
M.S.W.—University of Nebraska-Omaha

Jerome, David (2014)

Assistant Professor—Humanities and Social Sciences
Ph.D.—University of Arkansas-Fayetteville

Joachim, Bayo (1990)

Professor—Communication and Mass Media
Ph.D.—University of Kansas

Johnson, Carolyn (1990)

Assistant Professor—Library
M.A.—University of Wisconsin

Johnson, David (2010)

Instructor—Business
M.I.B.S.—University of South Carolina

Johnson, Matthew (1999)

Instructor—Humanities and Social Sciences
M.A.—Northwest Missouri State University

Jones, Brenda (2004)

Instructor—Business
M.B.A.—Northwest Missouri State University

Jones, Rego (2003)

Senior Instructor—Agricultural Sciences
M.S.—Northwest Missouri State University

Jorandby Molitor, Stephanie (2014)

Assistant Professor—Fine and Performing Arts
M.F.A.—Wisconsin Luther College

Katsion, John (2010)

Assistant Professor—Communication and Mass Media
Ph.D.—Regent University-Virginia Beach

Kelly, Alfred (1975)

Professor—Business
Ph.D.—University of Kentucky

Kenkel, Cindy (1998)

Assistant Professor—Business
M.B.A.—Northwest Missouri State University

Kibler, Jacqueline (2014)

Assistant Professor—Behavioral Sciences
Ph.D.—University of Kansas

Kiene, David (2013)

Assistant Professor—Professional Education
Ed.D.—St. Louis University

King, Laura (2014)

Horace Mann/Leet Center Faculty
M.S.—Baker University

Kobialka, Gayla (2012)

Assistant Professor—Fine and Performing Arts
D.M.A.—Shenandoah University

Kramer, Ernest (1985)

Professor—Fine and Performing Arts
Ph.D.—University of North Texas

Kreizinger, Joseph (2001)

Professor—Fine and Performing Arts
Ph.D.—University of Nebraska

Lacy, Jacqueline (2014)

Instructor—Agricultural Sciences
M.S.—University of Missouri-Columbia

Lamer, Fred C. (1982)

Assistant Professor—Communication and Mass Media
M.A.—Wayne State University

Lamer, Jacqueline (2001)

Instructor—Communication and Mass Media
M.P.M.—Keller Graduate School of Management

Lanier, Brian (2002)

Professor—Fine and Performing Arts
Ph.D.—Florida State University

Larson, J. Arley (1987)

Associate Professor—Agricultural Sciences
Ph.D.—University of Nebraska

Leach-Steffens, Lauren (1998)

Associate Professor—Behavioral Sciences
Ph.D.—University of Illinois

Leiss, Jodie (2016)

Assistant Professor—Health Science and Wellness
ABD—Kansas State University

Lewis, Brenda (2007)

Instructor—Language, Literature, and Writing
M.A.—Northwest Missouri State University

Lim, Chi Lo (1999)

Associate Professor—Business
D.B.A.—United States International University

Linville, Diana (2010)

Instructor—Computer Science and Information Systems
M.S.—Northwest Missouri State University

Long, Terry (2000)

Professor—Health Science and Wellness
Ph.D.—University of Utah

Loomis, Jeffrey (1990)

Professor—Language, Literature, and Writing
Ph.D.—University of North Carolina

Ludwig, Stephen (2001)

Assistant Professor—Business
Ph.D.—University of Arkansas

Malkawi, Ahmed (2000)

Professor—Natural Sciences
Ph.D.—University of Maine-Orono

Mardis, Lori (2001)

Assistant Professor—Library
M.L.S.—University of Michigan

Marta, Janet (1999)

Professor—Business
Ph.D.—Old Dominion University

Mason, Andrea (2013)

Instructor—Horace Mann
M.A.Ed.—Baker University

McAdams, Catherine (2014)

Horace Mann/Leet Center Faculty
M.A.—Texas Woman's University

McAliley, (Lee) Rex (2013)

Assistant Professor—Natural Sciences
Ph.D.—Texas Tech University

McGhee, Jay (2013)

Assistant Professor—Natural Sciences
Ph.D.—Virginia Polytechnic and State University

McIntosh, LeDonna (2014)

Horace Mann/Leet Center Faculty
M.S.Ed.—Northwest Missouri State University

McNeese, Gina (1998)

Instructor—Health Science and
Wellness/Horace Mann
M.S.Ed.—Northwest Missouri State University

Meziani, Mohammed (2010)

Associate Professor—Natural Sciences
Ph.D.—University of Montpellier II, France

Mihindikulasooriya, Lorita (2015)

Assistant Professor—Natural Sciences
Ph.D.—Kent State University

Mollus, Doni (2000)

Instructor—Business
M.B.A.—Northwest Missouri State University

Mühsam, Armin (2000)

Professor—Fine and Performing Arts
M.F.A.—Montana State University

Mullins, Callie (2010)

Associate Professor—Agricultural Sciences
M.S.—Kansas State University

Mylykangas, Susan (2005)

Associate Professor—Health Science and
Wellness
Ph.D.—Indiana University

Neustadter, Roger (1992)

Professor—Behavioral Sciences
Ph.D.—Purdue University

Nickerson, Jeffrey (2008)

Instructor—Business
M.B.A.—Northwest Missouri State University

Northup, Michael (1999)

Instructor—Business
M.S.—University of Missouri-Kansas City

Nuttall, Susanne (2008)

Instructor—Professional Education
M.Ed.—Southwestern Oklahoma State University

Offutt, Jason (2005)

Senior Instructor—Communication and Mass
Media
M.A.—Central Missouri State University

Olasz, Ildiko (2009)

Associate Professor—Language, Literature,
and Writing
Ph.D.—Michigan State University

Olson, Anthony (2000)

Professor—Fine and Performing Arts
D.M.A.—University of Southern California

Perez Palacios, José (2014)

Assistant Professor—Language, Literature,
and Writing
Ph.D.—Texas A&M

Patet, Pradnya (2009)

Associate Professor—Professional Education
Ph.D.—University of Bombay

Phillips, Sheila (2001)

Assistant Professor—Fine and Performing
Arts
D.M.A.—University of Missouri-Kansas City

Pippin, Robert (2015)

Assistant Professor—Fine and Performing
Arts
M.M.—Johns Hopkins University

Pope, John Paul (2002)

Associate Professor—Natural Sciences
Ph.D.—University of Iowa

Rich, Gregory (2013)

Assistant Professor—Professional Education
Ed.D.—University of Missouri-Columbia

Richards, Beth (1992)

Associate Professor—Language, Literature,
and Writing
Ph.D.—University of Nebraska-Lincoln

Richardson, David (2002)

Associate Professor—Natural Sciences
Ph.D.—University of Birmingham-United Kingdom

Richardson, William (1999)

Professor—Fine and Performing Arts
D.M.A.—University of Texas-Austin

Riley, Shelley (2009)

Associate Professor—Natural Sciences
Ph.D.—University of Kansas

Robinson, Stuart (2014)

Assistant Professor—Fine and Performing Arts
M.A.—University of Cincinnati

Rogers, Michael (2009)

Associate Professor—Computer Science and Information Systems
Ph.D.—Iowa State University

Rolfes, Luke (2008)

Senior Instructor—Language, Literature, and Writing
M.F.A.—Minnesota State University

Romig, Kevin (2013)

Assistant Professor—Humanities and Social Sciences
Ph.D.—Arizona State University

Ross, Theophil W. (1978)

Professor—Fine and Performing Arts
Ph.D.—University of Missouri

Roush, Marcy (2003)

Instructor—Language, Literature, and Writing
M.S.—Northwest Missouri State University

Royal, Kevin (2015)

Instructor—Agricultural Sciences
M.S.—Northwest Missouri State University

Russell, Doug (1999)

Assistant Professor—Business
M.B.A.—University of Nebraska-Omaha

Ryan, Brenda (1999)

Instructor—Language, Literature, and Writing
M.A.—Northwest Missouri State University

Rytting, Jenny (2006)

Associate Professor—Language, Literature, and Writing
Ph.D.—Arizona State University

Sadek, Jawad (1994)

Professor—Mathematics and Statistics
Ph.D.—Wayne State University

Scarborough, Cindy (2010)

Horace Mann/Leet Center Faculty
B.S.Ed.—Northwest Missouri State University

Schaffer, Karen (1991)

Assistant Professor—Natural Sciences
Ph.D.—University of Iowa

Schwienebart, Cathi (1997)

Horace Mann/Leet Center Faculty
B.S.Ed.—Northwest Missouri State University

Scofield, Devlin (2015)

Assistant Professor—Humanities and Social Sciences
Ph.D.—Michigan State University

Seeger, Vickie (2014)

Assistant Professor—Professional Education
Ph.D.—Kansas State University

Seipel, Sandy (2014)

Instructor/Principal—Professional Education/Horace Mann Laboratory School
Ed.S.—Northwest Missouri State University

Shadinger, David (2009)

Associate Professor—Communication and Mass Media
Ed.D.—Ball State University

Shannon, Pamela (2002)

Professor—Fine and Performing Arts
D.M.A.—Indiana University

Sheil, Meghan (2012)

Horace Mann/Leet Center Faculty
M.S.Ed.—Northwest Missouri State University

Shepherd, Mary (2001)

Professor—Mathematics and Statistics
Ph.D.—Washington University-St. Louis

Shi, Tiebing (2010)

Assistant Professor—Business
Ph.D.—Queen's University

Shields, Mary (2012)

Horace Mann/Leet Center Faculty
M.S.Ed.—Northwest Missouri State University

Shin, Kyoung-Ho (1999)

Professor—Behavioral Sciences
Ph.D.—Kansas State University

Shipley, Rusty (2015)

Instructor—Agricultural Sciences
M.S.—Northwest Missouri State University

Si, Dong (2015)

Assistant Professor—Computer Science and Information Systems
Ph.D.—Old Dominion University

Smith, Daniel (1999)

Assistant Professor—Humanities and Social Sciences
J.D.—University of Virginia

Smith, Susan René (2010)

Instructor—Natural Sciences
M.S.Ed.—Northwest Missouri State University

Spears, Kathleen (2012)

Assistant Professor—Natural Sciences
Ph.D.—University of Missouri-Columbia

Songur, Hilmi (2015)

Assistant Professor—Business
Ph.D.—Ball State University

Sonnenmoser, Richard (2008)

Associate Professor—Language, Literature, and Writing
M.F.A.—University of Massachusetts

Spradling, Carol (1988)

Professor—Computer Science and Information Systems
Ph.D.—University of Nebraska-Lincoln

Steffens, Shirley (1995)

Associate Professor—Professional Education
Ph.D.—University of Wisconsin

Steiner, Michael (1997)

Associate Provost—College of Arts and Sciences
Ph.D.—St. Louis University

Sterling, Linda (2006)

Associate Professor—Behavioral Sciences
Ph.D.—University of Kansas

Strickland, Kathryn (2013)

Assistant Professor—Fine and Performing Arts
Ph.D.—Louisiana State University

Stobbe, Lisa (2009)

Instructor—Natural Sciences
M.S.Ed.—Northwest Missouri State University

Strauch, Jodell (1993)

Assistant Professor—Language, Literature, and Writing
M.A.—University of Missouri-Kansas City

Strelluf, Christopher (2014)

Assistant Professor—Communication and Mass Media
Ph.D.—University of Nebraska-Lincoln

Sudhoff, Douglas (2001)

Assistant Professor—Communication and Mass Media
Ph.D.—University of Kansas

Swink, Brian (2015)

Instructor—Mathematics and Statistics
M.S.—Northwest Missouri State University

Symonds, Matt (2002)

Associate Professor—Health Science and Wellness
Ed.D.—University of Missouri-Columbia

Tapps, Tyler (2014)

Assistant Professor—Health Science and Wellness
Ph.D.—Oklahoma State University

Tasi, Csilla (2009)

Instructor—Mathematics and Statistics
M.S.—Northern Arizona University

Ternus, Dana (2014)

Instructor—Humanities and Social Sciences
M.A.—Northwest Missouri State University

Thompson, Patricia (1984)

Assistant Professor—Professional Education
M.S.Ed.—Northwest Missouri State University

Thornsberry, Gretchen (2009)

Associate Professor—Natural Sciences
Ph.D.—North Carolina State University

Thornsberry, Jeffrey (2003)

Associate Professor—Natural Sciences
Ph.D.—University of Missouri

Tobin, Malinda (2008)

Senior Instructor—Business
M.B.A.—Northwest Missouri State University

Toomey, Deborah (2006)

Assistant Professor—Business
D.B.A.—Anderson University

Toomey, Richard (1999)

Associate Professor—Natural Sciences
Ph.D.—Brandeis University

Town, Stephen (1986)

Professor—Fine and Performing Arts
D.M.—Indiana University

Tso, Kwok-Pong (2013)

Lecturer—Fine and Performing Arts
M.A.—University of Iowa

Vaught, Michelle (2014)

Leet Center Faculty
B.S.Ed.—Northwest Missouri State
University

Veasey, Michele (2009)

Instructor—Behavioral Sciences
M.S.Ed.—Northwest Missouri State
University

Vlieger, David (2002)

Assistant Professor—Mathematics and
Statistics
M.S.—University of Missouri-Rolla

Von Holzen, Roger (1987)

Associate Professor—Computer Science and
Information Systems
Ed.D.—Texas Technological University

Voss, Robert (2013)

Assistant Professor—Humanities and Social
Sciences
Ph.D.—University of Nebraska-Lincoln

Walker, Jim (1996)

Professor—Business
Ph.D.—University of Texas

Walker, Matthew (2001)

Associate Professor—Communication and
Mass Media
Ph.D.—University of Missouri-Columbia

Wall, Jennifer (2005)

Associate Professor—Mathematics and
Statistics
Ph.D.—University of Missouri-Kansas City

Wall, Timothy (2013)

Associate Professor—Professional Education
Ed.D.—University of Missouri-Columbia

Wanorie, Tekle (2004)

Associate Professor—Business
Ph.D.—University of Alabama

Warner, Patricia (2013)

Instructor—Natural Sciences
M.S.Ed.—Northwest Missouri State
University

Wessell, Ryan (2007)

Associate Professor—Behavioral Sciences
Ph.D.—Central Michigan University

Wilcox, Kenton (2000)

Instructor—Language, Literature, and
Writing
M.A.—Northwest Missouri State University

Williams, Glenn (2003)

Associate Professor—Fine and Performing
Arts
M.F.A.—University of Wisconsin-Madison

Wilmes, Kelli (2012)

Instructor—Health Science and Wellness
M.S.—Texas Woman's University

Wilson, Nathan (2008)

Associate Professor—Communication and
Mass Media
M.A.—University of Iowa

Winans, Sarah (2015)

Horace Mann/LEET Center Faculty—Horace
Mann
M.S.—Doan College

Wong, Chi Him (2015)

Assistant Professor—Computer Science and
Information Systems
Ph.D.—University of Guelph

Wood, Rahn (1993)

Associate Professor—Business
Ph.D.—St. Louis University

Wood, Sue (2013)

Assistant Professor—Professional Education
Ed.D.—University of South Dakota

Wu, Yi-Hwa (2004)

Associate Professor—Humanities and Social
Sciences
Ph.D.—University of Utah

Yu, Han (2009)

Assistant Professor—Mathematics and
Statistics
Ph.D.—Florida State University

Zeliff, Nancy (1987)

Professor—Computer Science and
Information Systems
Ph.D.—University of Missouri-Columbia

Zweifel, Thomas (1985)

Assistant Professor—Agricultural Sciences
Ph.D.—University of Nebraska-Lincoln

Emeriti Faculty**Albertini, Virgil R. (1965-1998)**

Ph.D.—English

Allen, C. K. (1983-2003)

Ph.D.—Agriculture

Baker, Carol (1993-2003)

Ed.D.—Educational Leadership

Baker, John (1977-2014)

L.L.M.—Business

Ballantyne Jr., Edwin (1989-1998)

Ph.D.—Marketing and Management

Bayliss, Andree (1991-1999)

Ed.D.—Curriculum and Instruction

Bettis, Mervin (1977-1994)

Ph.D.—Agriculture

Bobo, Richard L. (1983-2000)

D.M.—Music

Bohlken, Robert (1970-2000)

Ph.D.—Communication and Theatre Arts

Bouas, Jean (1992-2003)

Ph.D.—Curriculum and Instruction

Bowers, John (1980-2003)

Ph.D.—Psychology, Sociology and Counseling

Brandon-Falcone, Janice (1991-2011)

Ph.D.—History, Humanities, Political Science and Philosophy

Brekke, Ann M. (1965-1999)

M.Ed.—Physical Education

Brekke, Jerald D. (1964-1999)

Ph.D.—Political Science

Brown, Gerald (1983-2000)

Ph.D.—Agriculture

Brown, Harold (1973-2009)

Ph.D.—Agriculture

Browning, Edward (1961-2000)

Ph.D.—Accounting, Economics and Finance

Browning, Sharon (1964-1999)

Ph.D.—Marketing and Management

Buerman, Margaret (1998-2009)

Ph.D.—Mathematics and Statistics

Bush, Betty (1983-2002)

Ph.D.—Curriculum and Instruction

Carneal, Tom (1968-2002)

M.A.—History, Humanities and Philosophy

Clark, Deborah (2004-2008)

M.S.—Family and Consumer Sciences

Clark, Judy (1997-2016)

Ph.D.—Mathematics, Computer Science and Information Systems

Collins, Gary (1978-2001)

Ph.D.—Physical Education

Collins, Herman (1966-1993)

Ed.D.—Technology

Coss, David (1966-1993)

Ph.D.—English

Crist, Leroy (1962-1993)

Ed.D.—Technology

Croft, Betty (1979-1990)

M.S.—Library

Crossland, Barbara (2002-2014)

Ed.D.—Professional Education

Dewhirst, Robert (1983-2016)

Ph.D.—Humanities and Social Sciences

DeYoung, Ron (1984-2008)

Ed.D.—Marketing and Management

Dodds, Charles W. (1988-2002)

Ph.D.—Geology and Geography

Dougherty, John (1965-1979)

M.A.—Foreign Languages

Drew, Margaret (1996-2014)

Ph.D.—Professional Education

Dyche, Lewis (1964-1990)

M.S.—Physical Education

Easterla, David (1965-2013)

Ph.D.—Natural Sciences

Edwards, Margaret A. (1968-1993)

D.M.A.—Music

English, George (1977-1995)

Ph.D.—Government

Fairchild, Johanne (1978-2001)

Ph.D.—Agriculture

Falcone, Paul (1987-2007)

M.F.A.—Art

Farquhar, Edward (1964-2001)

Ph.D.—Chemistry and Physics

Felton, Richard (1981-2007)
M.A.—Geography

Ferguson, Dale Ernest (2002-2009)
Ph.D.—Computer Science/Information Systems

Ferguson, Jeffrey (1987-2016)
Ed.D.—School of Health Science and Wellness

Ferris, Ron (1966-2009)
M.A.—History, Humanities, Philosophy and Political Science

Foley, Nancy (2000-2016)
Ph.D.—Professional Education

Frucht, Richard (1980-2008)
Ph.D.—History, Humanities and Philosophy

Frucht, Suzanne (1993-2008)
Ph.D.—Biology

Fry, Carrol (1972-2003)
Ph.D.—English

Fulton, Richard (1973-2013)
Ph.D.—Humanities and Social Sciences

Funston, Chanda (1988-2006)
Ph.D.—English

Gates Jr., James O. (1969-1992)
Ed.D.—Curriculum and Instruction

Gayler, George (1949-1987)
Ph.D.—History and Humanities

Gilbert, Steven (1999-2009)
M.B.A.—Marketing and Management

Gille, George (1970-2003)
Ph.D.—Agriculture

Goad, Craig (1966-2006)
Ph.D.—English

Graham, Michael (1985-2008)
Ph.D.—Educational Leadership

Grispino, Frank (1965-2010)
Ed.D.—Educational Leadership

Hagan, Donald (1965-2000)
Ed.D.—Geology and Geography

Hageman, Lee (1967-1998)
M.F.A.—Art

Hanson, Linda (1983-2003)
M.B.A.—Accounting, Economics and Finance

Hart, Richard (1962-1990)
Ph.D.—Biology

Hedge, William (2004-2012)
Ed.D.—Educational Leadership

Heeler, Linda (1981-2014)
M.S.Ed.—Horace Mann

Heeler, Phillip (1981-2014)
Ph.D.—Mathematics, Computer Science and Information Systems

Hemenway, Henry (1968-1987)
Ed.D.—Curriculum and Instruction

Heusel, Barbara (1990-2005)
Ph.D.—English

Higginbotham, Harlan K. (1964-1999)
Ph.D.—Chemistry and Physics

Hinckley, William (1968-1998)
Ed.D.—Educational Leadership

Horner, Channing (1967-2006)
M.A.—Communication, Theatre and Languages

Horner, Louise (1992-2006)
Ph.D.—Communication, Theatre and Languages

Hoskey, Marvin (1978-2003)
Ph.D.—Agriculture

Hurst, Jean (1988-2002)
M.A.—English

Jelavich, Mark (1981-2012)
Ph.D.—Accounting, Economics and Finance

Jewell, Duane K. (1984-2003)
Ph.D.—Agriculture

Jewett, Mike (1969-2000)
Ph.D.—English

Johnson, James (1981-2006)
M.S.Ed.—HPERD

Jones, Paul (1966-2012)
M.A.—English

Kennedy, Madonna Davis (1978-2001)
M.A.—Library

Kharadia, Virabhai (1973-2010)
Ph.D.—Accounting, Economics and Finance

King, Terry (1981-2008)
Ph.D.—Mathematics and Statistics

Kramer, Gerald H. (1988-1999)

Ph.D.—Marketing and Management

Laber, Phil (1976-2015)

M.F.A.—Fine and Performing Arts

Landes, A. Richard (1965-2000)

M.S.—Chemistry and Physics

Leeper, Kathie (1976-2000)

Ph.D.—Speech

Leeper, Roy (1980-2000)

J.D.—Speech

Lindaman, Arnold D. (1989-2001)

Ph.D.—Educational Leadership

Lister, Ina Claire (1995-2002)

Ed.S.—Educational Leadership

Lucido, Patricia (1979-2008)

Ph.D.—Chemistry and Physics

Lucido, Phil (1971-2012)

Ph.D.—Biological Sciences

Maxwell, Dwight (1970-2000)

Ph.D.—Geology and Geography

May, Leland (1969-1999)

Ed.D.—English

Mayer, Nancy (2000-2013)

Ph.D.—English and Modern Languages

McCall, Carolyn (1986-2011)

Ph.D.—Curriculum and Instruction

McDonald, Gary (1971-2015)

Ph.D.—Mathematics, Computer Science and Information Systems

McDonald, June (1984-2002)

D.M.A.—Music

McDonald, Kendall (1975-2002)

Ph.D.—Mathematics

McDonald, Merry (1970-2015)

Ph.D.—Mathematics, Computer Science and Information Systems

McKee, Kathryn (1946-1982)

M.A.—Education

McLaughlin, David (1978-2011)

Ph.D.—Political Science

McLaughlin, J. Patrick (1978-2014)

J.D.—Business

Messner, Phil (1996-2013)

Ed.D.—Professional Education

Midland, Dale (1961-1995)

M.A.Ed.—English

Miller, Peggy (1969-2001)

Ph.D.—Family and Consumer Sciences

Minter, Kenneth W. (1963-1993)

Ph.D.—Biology

Moss, Martha (1958-1994)

M.S.Ed.—Marketing and Management

Moss, Ron (1966-1999)

Ph.D.—Computer Science/Information Systems

Mothershead, Harmon (1965-1996)

Ph.D.—History and Humanities

Mull, Sandra (1969-2001)

M.A.—Physical Education

Murphy, Kathryn (1972-1997)

M.A.—Library

Nagle, Jean S. (1965-1992)

Ph.D.—Sociology

Nelsen, Kenneth (1975-2003)

M.F.A.—Art

New, Richard (1967-1996)

M.S.Ed.—Curriculum and Instruction

Nichols, Elaine (2000-2005)

M.S.—Mathematics and Statistics

Northup, Russell P. (1990-2004)

M.B.A.—Marketing and Management

Nothstine, Donald (1970-1999)

M.B.A.—Marketing and Management

Oehler, David (1982-2015)

Ph.D.—Fine and Performing Arts

Padgitt, Dennis (1967-2012)

Ph.D.—Agriculture

Redd, James C. (1967-2001)

Ed.D.—Physical Education

Reusser, Janet (1992-2016)

Ed.D.—School of Health Science and Wellness

Rhoades, John (1968-1992)

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Index

- 2016-2017 12
- 2016-2017 Undergraduate Catalog 4
- 24-Unit Core Curriculum-2010 high school graduates and beyond.....14
- Academic Administrative Officers 437
- Academic Advisement 36
- Academic Calendar 12
- Academic Honesty 38
- Academic Load..... 37
- Academic Policies..... 37
- Academic Probation, Academic Suspension, and Dismissal..... 46
- Academic Residence 50
- Academic Structure 79
- Accounting / 51 223
- Accounting Comprehensive Major, 69 hours
 B.S.—No Minor Required 223
- Accounting Information Systems Minor, 21 hours..... 224, 262
- Accreditation..... 5
- ACCT - Accounting..... 308
- Activity Courses..... 368, 421
- Adding Courses: 47
- Adding, Dropping, and Withdrawals 47
- Administration Building 430
- Administrative/Professional Council (A/P Council) 436
- Admission to Undergraduate Study..... 13
- Admissions 13
- Adult Students 25
- Advanced Standing Core—Interactive Digital Media-Visual Imaging: 99
- Advanced Standing Requirement 49
- Advertising Major, 61 hours
 B.S.—No Minor Required 247
- Advertising Minor, 24 hours 249
- Advisement and Orientation Office 54
- AGRI - Agriculture..... 309
- Agricultural Business Major, 37 hours
 B.S.—Collateral Field Required 208
- Agricultural Business Minor, 24 hours
 B.S. 215
- Agricultural Communications Minor, 24-25 hours..... 216
- Agricultural Economics 309
- Agricultural Education 311
- Agricultural Education Comprehensive Major, 59 hours
 B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12).... 209
- Agricultural Finance Minor, 24 hours 216, 227
- Agricultural Mechanization 310
- Agricultural Science 311
- Agricultural Science Comprehensive Major, 55 hours
 B.S.—No Minor Required 210
- Agricultural Science Minor, 24 hours 217
- Agriculture Middle School Certification, 22 hours
 Endorsement for (Certifies Grades 5-9 when completed with the Middle School Major)..... 219
- Agronomy 312
- Agronomy Major, 36 hours
 B.S.—Minor Required OR Collateral Field 211
- Agronomy Minor, 24 hours 217
- Alfred McKemy Center for Lifelong Learning 432
- Alumni House 430
- Animal Science 313
- Animal Science Comprehensive Major (Pre-Veterinary Option), 61-64 hours
 B.S.—No Minor Required 213
- Animal Science Major, 38 hours
 B.S.—Minor Required OR Collateral Field 212
- Animal Science Minor, 22 hours 217
- Appeals Process 32
- Appeals Process for Academic Policies... 48
- Appendix 430
- Application Fee 20
- Application for Degree 50
- Application Procedures 30
- Applied Health Science Major, 68-69 hours
 B.S.—No Minor Required 285
- Applied Music 394
- ARSC - College of Arts and Sciences 315
- ART - Art 315
- Art / 13..... 96
- Art Comprehensive Major, 54 hours
 B.A.—No Minor Required..... 103
- Art Comprehensive Major, 72 hours
 B.F.A. Studio—No Minor Required... 99
- B.F.A. Graphic Design-No Minor Required..... 100
- Art Education 316
- Art Education Comprehensive Major, 55 hours

B.S.Ed.— No Minor Required.....	101	B.S.—No Minor Required.....	224
Art History	317	Business Education Major, 48 hours	
Art Minor, 24 hours	105	B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12)....	232, 258
Articulation Agreements	22	Business Education Minor, 36 hours	
Assist Program	57	B.S.Ed., Secondary Program (Certifies Grades 9-12)—See Professional Education Requirements.....	260
Attendance.....	37	Business Education/Instructional Technology	337
Audit	39	Business Management Comprehensive Major, 63 hours	
Authorizations.....	28	B.S.—No Minor Required.....	228
Available Aid.....	30	Business Technology	342
Award Notification.....	31	Business Technology Certificate, 60 hours	264
Award Processing	31	Business Technology Comprehensive Major, 63 hours	
B.D. Owens Library	54, 433	B.S.—No Minor Required.....	231, 257
B.S.Ed. Requirements Matrix	74	Calculating Grade Point	41
Bachelor of Arts	71	Campus Conduct Program	52
Bachelor of Fine Arts	71	Career and Technical Education Certificate, 16 hours.....	281
Bachelor of Music Education.....	71	Career Education	281
Bachelor of Music Education (B.M.E.) (K-12 Certification)	110	Career Services	58
Bachelor of Science.....	72	Catalog Requirement.....	49
Bachelor of Science in Clinical Laboratory Sciences.....	75	Center for Innovation and Entrepreneurship (CIE).....	430
Bachelor of Science in Education	72	Ceramics	318
Bachelor of Technology.....	77	CHEM - Chemistry	329
Bearcat Bookstore	59	Chemistry / 24	185
Billing Policy – Email.....	27	Chemistry Comprehensive Major, A.C.S. Accredited, 65-66 hours	
Biochemistry Minor, 28 hours	192	B.S.—No Minor Required.....	185
BIOL - Biological Sciences	322	Chemistry Education Major, 54-55 hours	
Biology / 04.....	168	B.S.Ed., Secondary Program (Certifies Grades 9-12).....	190
Biology Comprehensive Major, 64-65 hours		Chemistry Education Minor, 41 hours	
B.S.—No Minor Required	172	B.S.Ed. (Certifies 9-12).....	192
Biology Education Major, 55-57 hours		Chemistry Major, 30 hours	
B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12)....	182	B.A.—Minor Required	188
Biology Major, 50-51 hours		Chemistry Major, 55-59 hours	
B.S.—Minor Required.....	171	B.S.—No Minor Required.....	186
Biology Minor, 24 hours.....	183	Chemistry Minor, 24 hours	191
Biology Unified Science Major, 64-66 hours		Chemistry Unified Science Major, 65 hours	
B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area Biology).....	181	B.S.Ed., Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area Chemistry).....	189
Biology/Psychology Comprehensive Major, 70-77 hours		Child and Family Studies Minor, 24 hours	302
B.S.—No Minor Required	174, 300	Chinese.....	374
Biomedical Sciences Comprehensive Major –Chiropractic Track, 66 hours		Class Instruction.....	394
B.S.—No Minor Required	176	Classification of Students	40
Broadcasting Minor, 24 hours	249		
Bursar/Cashiering Office	54		
Business Advanced Standing Requirement	222		
Business Economics Comprehensive Major, 60 hours			

CLEP General Examinations	17
CLEP Subject Examinations	17
Clinic Services	55
Clinical Laboratory Sciences, 77-78 hours	
B.S.—No Minor Required	168
Coaching Minor, 22 hours	289
Colden Hall	430
COM - Communication	332
Combined Percentile Index	13
Commencement.....	50
Common Professional Component	
Requirements for Accredited Business	
Programs.....	222
Communication / 29	235
Communication Core Requirements	236
Communication Major, 33-54 hours	
B.A.	237
Communication Major, 36-60 hours	
B.S.....	238
Communication Minor, 24 hours.....	240
Computer Applications Minor, 24 hours.....	262
Computer Networking Minor, 21 hours.....	259
Computer Science	338
Computer Science and Information	
Systems / 44	253
Computer Science and Information	
Systems Advanced Standing	
Requirements.....	252
Computer Science Comprehensive Major,	
62-65 hours	
B.S.—No Minor Required	253
Computer Science Minor, 21 hours.....	259
Concurrent Enrollment	42
CORE - Northwest Core Interdisciplinary	
Engagement.....	336
Co-Requisites.....	379
Correspondence and Extension Courses	39
Council on Teacher Education	436
Course Audits	32
Course Numbering	26, 40
Courses	308
Courses Counting Toward Multiple	
Requirements.....	51
Credit for External Examinations	16
Credit System	40
Criminology and Criminal Justice Minor, 24	
hours.....	147
Criminology Comprehensive Major, 63	
hours	
B.S.—No Minor Required	140
CSIS - Computer Science Info Systems..	336
DANTES Credit.....	18
Data Management Minor, 21 hours.....	261
Data Sciences and Informatics	
Comprehensive Major, 67-79 hours	
B.S.—No Minor Required.....	153
Data Sciences and Informatics	
Comprehensive Major-Business	
Emphasis, 73 hours	
B.S.—No Minor Required.....	228
Data Sciences and Informatics	
Comprehensive Major-Computer	
Science Emphasis, 67 hours	
B.S.—No Minor Required.....	255
Data Sciences and Informatics	
Comprehensive Major-GIS Emphasis, 70	
hours	
B.S.—No Minor Required.....	132
Data Sciences and Informatics	
Comprehensive Major-Molecular	
Biology Emphasis, 79 hours	
B.S.—No Minor Required.....	176
Deadlines.....	30
Deaf Studies Minor, 24 hours	93
Deans Council.....	436
Degree Audit	48
DeLuce Fine Arts Building.....	431
Departmental/School Test-Out	45
Determination of Return of Federal Aid .	29
Foods and Nutrition Comprehensive Major	
B.S.—No Minor Required.....	283
Division of Behavioral Sciences.....	297
Division of Health and Wellness.....	282
Drawing.....	318
Dropping Courses:	47
Dual Credit Courses (Transferred to	
Northwest)	19
Dual Credit for High School Students in	
Northwest Courses.....	25
Dual Enrollment of Northwest Seniors...	26
Early Childhood Education Minor, 30-31	
hours	
B.S.Ed., Elementary Program (Certifies	
Birth through Grade 3)	274
Early Childhood Special Education	
Certification, 6-9 hours	
(Certifies Pre-K and K in Missouri)	275
Early Release	25
Earth Science Education Minor, 22-23 hours	
.....	198
Earth Science Unified Science Major, 58	
hours	
B.S.Ed., Secondary Program—No Minor	
Required (Certifies Grades 9-12,	
Endorsement Area	
Earth Science)	196
ECON - Economics.....	342
Economics / 52	224
Economics Major, 33 hours	

B.S.—Minor Required	225	FIN - Finance	357
Economics Minor, 18 hours	225	Final Examinations	43
EDCI - Education		Finance / 53	226
Curriculum & Instruction	343	Finance Comprehensive Major, 63 hours	
EDUC - Education		B.S.—No Minor Required	226
General Leadership	348	Financial Assistance	30
Education		Financial Assistance Programs	32
Curriculum and Instruction / 62	272	Fine and Performing Arts Department ...	96
Educational Leadership / 61	279	Fire Arts Building	431
Education B.S.	272	Food Service Minor, 24 hours	
Education B.S., Elementary-Secondary		B.S.	284
Program (K-12 Certification)	280	Foods and Nutrition / 47	283
Education B.S., Secondary Program		For More Information	26
(Certifies Grades 9-12)	279	Former Missouri Academy Students	16
Elementary Art Education Minor, 24 hours		Foster Fitness Center	431
B.S.Ed.—Certifiable	105	Four-Week Advisory Grades	42
Elementary Education Major, 68-71 hours		French	374
B.S.Ed., Elementary Program (Certifies		Freshman Admissions	13
Grades 1-6)	273	Freshman International Student	
Emergency and Disaster Management		Admissions	24
Major, 36 hours		Freshman Requirements	15
B.S.—Minor Required	149	Garrett-Strong Science Building	431
Emergency and Disaster Management		GED/HiSET	25
Minor, 27 hours	150	General Business Minor, 24 hours	230
Emeriti Faculty	447	General Information	27
ENGL - English	351	General Registration	36
English / 10	83	GEOG - Geography	358
English Core Requirements	86	Geographic Information Science	
English Education Comprehensive Major,		Comprehensive Major, 53-54 hours	
57 hours		B.S.—No Minor Required	129
B.S.Ed.—No Minor Required	88	Geographic Information Systems Minor, 28	
English Major, 33 hours		hours	133, 263
B.A.—Minor Required	86	Geography / 32	127
English Major, 39 hours		Geography Core Requirements	127
B.S.Ed.—Minor Required	87	Geography Major, 30 hours	
English Major, Creative Writing Emphasis,		B.A.—Minor Required	127
36 hours		B.S.—Minor Required	128
B.A.—Minor Required	87	Geography Minor, 24 hours	132
English Minor, 24 hours	89	GEOL - Geology	361
English Minor, 30 hours		Geology / 27	193
Certifiable	90	Geology Comprehensive Major, 54-60	
Ensembles	395	hours	
Environmental Science Interdisciplinary		B.S.—No Minor Required	194
Minor, 28 hours	184, 198	Geology Core Requirements	193
Everett W. Brown Education Hall	430	Geology Major, 31 hours	
Extended Leadership Team (ELT)	436	B.A.—Minor Required	193
External Examinations	45	Geology Minor, 25 hours	197
Facilities	430	Gerontology Interdisciplinary Minor, 24	
Faculty	439	hours	295
Faculty Senate	436	Governance	435
Failure to Earn a Passing Grade	32	Grade Appeal Procedure	43
Farm Operation Two-Year Certificate		Grade Point Average Requirements	41
Program, 60 hours	219		
Fees and Costs	27		
Fees for Special Programs	28		

Grade Point Requirement.....	51
Grading System	40
Graduate Council.....	436
Graduate Study	26
Graduation Policies and Requirements...	49
Grammar and Linguistics	352
Graphic Design	319
Gulf Coast Research.....	327
Health / 22, Physical Education / 22.....	285
Health Certification, Grades K-9, B.S.Ed. Degree 26 hours.....	290
Health Education Minor, 29 hours B.S.Ed., Secondary Program (Certifies Grades 9-12).....	289
Health Promotion Services.....	56
HIST - History	364
History	10
History / 33.....	133
History Core Requirements	134
History Major, 36 hours B.A.—Minor Required.....	134
History Major, 39 hours B.S.—Minor Required	135
History Minor, 21 hours.....	136
Home-schooled Students	15
Honor Roll and Graduation Honors.....	45
Horticulture.....	314
Horticulture Major, 37 hours B.S.—Minor Required OR Collateral Field Listed Below	214
Horticulture Minor, 24 hours.....	218
Housing Contract	28
HPER - Health and Physical Education ..	367
HUM - Humanities	372
Human Services Major, 36 hours B.S.—Minor Required.....	298
Humanities / 26.....	123
Humanities and Social Sciences Department.....	122
I-20 Form	24
INCO - Inter-College	372
Incomplete Grade	41
Incomplete Grades.....	32
Individual Instruction	394
Individualized Language Program Minor, 27 hours.....	95
Industrial Psychology Comprehensive Major, 60 hours B.S.—No Minor Required	299
Information Technology	56
In-Progress Grade	41
INST - International Study.....	373
Institutional Assessment	58
Institutional Research.....	58
Instrumental Music Education Comprehensive Major, 60 hours B.M.E.—No Minor Required (Certifies Grades K-12).....	111
Instrumental Music Education Extended Certification, Grades K-12, 14 hours B.M.E. Degree	114
Interactive Digital Media	341
Interactive Digital Media Comprehensive Major 63 hours, B.S.—No Minor Required...255	255
Interactive Digital Media Comprehensive Major, 61 hours B.S.—No Minor Required.....	104, 248
Interactive Digital Media Minor, 24 hours	107, 250, 263
Interdisciplinary Engagement	336
International Affairs and the English as a Second Language (ESL) Program Office	61
International Application Deadlines	24
International Baccalaureate Credit	18
International Business Comprehensive Major, 63 hours B.S.—No Minor Required.....	233
International Student Admissions	22
International Studies Minor, 24 hours ...	147
International Study / 80.....	80
International Transfer Students.....	24
J.W. Jones Union	432
Jon T. Rickman Electronic Campus Support Center.....	434
Journalism Minor, 24 hours.....	249
LANG - Languages.....	373
Language Arts Concentrations for Middle School Major	90, 276
Language, Literature, and Writing Department	81
Languages / 14.....	91
Learning & Teaching Center powered by CITE	57
Liberal Arts and Sciences Comprehensive Major, 59-61 hours B.A.—No Minor Required	123
Liberal Arts and Sciences Comprehensive Major, 62-64 hours B.S.- No Minor Required	125
Liberal Arts and Sciences Minor, 25-26 hours	126
Literature	352
Literature and History	397
Mabel Cook Recruitment and Visitors Center.....	53, 430
Majors and Minors.....	51

Majors in Special Education

Cross Categorical and Elementary Education.....	278
Management / 54.....	228
Management Information Systems	341
Management Information Systems Comprehensive Major, 63 hours	
B.S.—No Minor Required	231, 257
Marine Biology Comprehensive Major, 69 hours	
B.S.—No Minor Required	177
Marketing / 55	233
Marketing and Cooperative Education Minor, 36 hours.....	260
Marketing Comprehensive Major, 63 hours	
B.S.—No Minor Required	233
Mass Media / 20.....	243
Mass Media Major, 55 hours	
B.S.—No Minor Required	244
MATH - Mathematics and Statistics	378
Math Skills	378
Mathematics and Mathematics Education Foundational Requirements.....	154
Mathematics and Statistics Department / 17.....	152
Mathematics Comprehensive Major, 45-46 hours	
B.A., B.S.—No Minor Required.....	156
Mathematics Comprehensive Major-Data Science Emphasis, 44 hours	
B.A., B.S.—No Minor Required.....	157
Mathematics Education.....	381
Mathematics Education Comprehensive Major, 46 hours	
B.S.Ed.—No Minor Required (Certifies Grades 9-12).....	158
Mathematics Education Minor, 24 hours	
B.S.Ed.....	160
Mathematics Education Minor, 36 hours	
B.S.Ed., Secondary Program (Certifies Grades 9-12).....	161
Mathematics Major, 36-37 hours	
B.A., B.S.—Minor Required	154
Mathematics Minor (Calculus based), 21-22 hours.....	159
Mathematics Minor (Non-Calculus based), 22 hours	159
Maximum Time Frame and Credit Hours	30
Media Studies Major, 31 hours	
B.A.—Minor Required.....	244
Melvin D. and Valorie G. Booth School of Business.....	220
Memorial Bell Tower	432
Message from the President	8
Methods and Materials.....	397
MGMT - Management.....	383
Middle School Endorsement Certification—Business Education, 21 hours, Grades 5-9.....	261
Middle School Major, 47-54 hours	
B.S.Ed. degree—Certifiable Subject Field Required.....	275
Middle School Science Minor, 24-25 hours	
B.S.Ed., Major in Middle School (Certifies Grades 5-9).....	203
Midterm Advisory Grades.....	43
Military Science (Army National Guard GOLD Program)	62
Military Science (Army ROTC)	62
Military Science Advanced Standing Requirements	163
Military Science Basic Courses, 14 hours	164
Military Science Department / 42	162
Military Science General Information	165
Military Science Minor, 23 hours	164
Military Service	19, 46
MILS - Military Science.....	385
Miscellaneous Fees.....	28
Missouri Small Business and Technology Development Center (SBTDC)	60
MKTG - Marketing.....	386
MMED - Mass Media	388
MOAC - MO Academy of Sci, Math, Comp	393
Motor Vehicle Registration	52
Mozingo Outdoor Education Recreation Area (MOERA)	433
MUS - Music	393
Music / 19.....	107
Music Comprehensive Major, 41 hours	
B.A.—No Minor Required.....	113
Music Minor, 24 hours	113
NANO - Nanoscale Science	400
Nanoscale Science / 48	200
Nanoscience Comprehensive Major-Biology Emphasis, 65-66 hours	
B.S.—No Minor Required.....	200
Nanoscience Comprehensive Major-Chemistry Emphasis, 67 hours	
B.S.—No Minor Required.....	201
Nanoscience Comprehensive Major-Physics Emphasis, 67 hours	
B.S.—No Minor Required.....	202
Natural Sciences Department	166
New International Students.....	23
No Credit	39
Non-Degree-Seeking Students.....	24
Northwest Core - Academics Requirements	66

Northwest Kansas City Center.....	63	B.S.Ed. (Certifies Grades K-12)	288
Northwest Leadership Team	437	Physics / 25	199
Northwest Leadership Team (NLT).....	436	Physics Education Minor, 28 hours	
Northwest Missouri Educational Consortium (NMEC).....	62	B.S.Ed. (Certifies Grades 9-12)	199
Northwest Missouri State University	6	Physics Minor, 25 hours	199
Northwest Missouri State University Presidents.....	437	Policies and Regulations.....	37
Northwest St. Joseph Center	63	Political Science / 34.....	140
Northwest Students at Conception Seminary College	26	Political Science Comprehensive Major, 55-58 hours	
Northwest Writing Center	58	B.S.—No Minor Required.....	143
Northwest's Mission, Vision and Values ..	10	Political Science Core Requirements	143
NUTR - Foods and Nutrition	400	Political Science Major, 31 hours	
Nutrition Minor, 23-24 hours		B.A.—Minor Required	146
B.S.	285	Political Science Major, 37 hours	
Office of Admissions	53	B.S.—Minor Required.....	146
Office of Intercultural Affairs	61	Political Science Minor, 24 hours	146
Office of Scholarships and Financial Assistance	53	POLS - Political Science.....	406
Office of the Registrar	54	Precision Agriculture Minor, 24-25 hours	218
Office of Volunteer, Service Learning and Civic Engagement	62	Pre-Professional Programs.....	64
Online Aid Applicants.....	34	Preregistration.....	36
Organizational Behavior/Human Resource Management Comprehensive Major, 63 hours		Printmaking.....	321
B.S.—No Minor Required	229	Professional Education Unit.....	272
Painting	320	PSYC - Psychology.....	409
Participation in the Assessment Program	42	Psychology Major, 30 hours	
Pass/Fail Option.....	44	B.A.—Minor Required	299
Pedagogy.....	354	Psychology Major, 36 hours	
Peer Education	56	B.S.—Minor Required.....	298
Percival DeLuce Memorial Collection.....	60	Psychology Minor, 24 hours	302
Personal Development and Counseling Services	56	Public Administration Minor, 24 hours ..	146
PHIL - Philosophy	402	Public History and Museum Studies Minor, 23 hours.....	138
Philosophy / 39	138	Qualitative Progress	32
Philosophy Core Requirements	138	Quantitative Progress.....	31
Philosophy Major, 31 hours		R.T. Wright Farm.....	435
B.A.—Minor Required.....	139	RAD - Health Sciences.....	413
Philosophy Minor, 18 hours	139	Radiologic Sciences Completion Degree Program, 81 hours	
Photography	321	B.S.—No Minor Required	170
PHSC - Physical Science.....	403	Raymond J. Courter College Park Pavilion	431
PHYS - Physics	404	Re-Admission of Former Students	25
Physical Activity/Varsity Athletics Limitations.....	50	REC - Recreation	417
Physical Education	369	Recreation / 45	291
Physical Education Advanced Standing Requirement	287	Recreation Major, 57-69 hours	
Physical Education Certification, 40 hours, Grades K-9, B.S.Ed. degree	290	B.S.—No Minor Required.....	292
Physical Education Major, 51 hours		Recreation Minor, 24 hours.....	295
		Refund/Reduction in Charge Schedule ...	29
		Registration	36
		Renewable and Alternative Energy Facilities.....	434
		Residence Halls, Suites and Apartments	433

Residency for Fee Purposes	27	Cross Categorical, 90-94 hours	
Resources and Services	53	B.S.Ed. (Certifies Grades K-12)	277
Ron Houston Center for the Performing		Speech/Theatre.....	119
Arts	431	Speech/Theatre Core Requirements.....	119
Room and Board	28	Speech/Theatre Education	241
Russian	374	Speech/Theatre Education Comprehensive	
Ryland Milner Complex.....	432	Major, 55 hours	
Safety Education	371	B.S.Ed.—No Minor Required (Certifies	
Satisfactory Academic Progress.....	31	Grades 9-12).....	119, 241
SCED - Science Education.....	421	Speech/Theatre Education Core	
SCGD - School Counseling.....	422	Requirements	241
School of Agricultural Sciences/ 03	207	Speech/Theatre Education Major, 38 hours	
School of Communication and Mass Media		B.S.Ed.—Minor Required (Certifies	
.....	235	Grades 9-12).....	120, 242
School of Computer Science and		Speech/Theatre Education Minor, 32	
Information Systems	251	hours, (Certifies Grades 9-12)	242
School of Education	266	Speech/Theatre for the Middle School	
School of Health Science and Wellness	282	Area of Endorsement, 21 hours...	121, 243
Science and Mathematics A.S.	305	Sport Management Interdisciplinary	
Science Education / 28	203	Minor, 24 hours.....	230, 296
Sculpture/Three-Dimensional Design.....	321	Sport Psychology Interdisciplinary Minor,	
Second Degree.....	51	24 hours	296, 302
Secondary Art Education Minor, 30 hours		State Law Requirement for Degrees or	
B.S.Ed.—Certifiable	106	Certificates.....	49
Senior Citizen Fee Waiver	28	Statement of Non-Discrimination	7
Senior College Credit (Upper Division) ...	50	Statistics	382
Senior Statement	49	Statistics Minor, 24 hours	160
Sign Language.....	375	Student Athlete Success Program	57
SOC - Sociology	422	Student Identification Card (Bearcat Card)	
Social Science / 36	148	52
Social Science Certification, 21 hours		Student Life Policies and Regulations.....	51
B.S.Ed., Major in Middle School (Certifies		Student Media	59
Grades 5-9)	150	Student Records	51
Social Science Comprehensive Major, 54		Student Senate	436
hours		Student Services	437
B.S.Ed.—No Minor Required (Certifies		Student Services Center	53
Grades 9-12).....	148	Student Support Services.....	58
Social Science Core Requirements	148	Students with Disabilities	57
Sociology Minor, 24 hours	303	Study Abroad	378
SOSC - Social Science	424	Study Abroad Office	61
Spanish	376	Summer	33
Spanish Major, 34 hours		Supersede Policy for Transfer Courses	22
B.A.—Minor Required or Collateral Field		Superseding Grades/ Repeating Courses	42
.....	91	Support Services Complex	434
B.S.Ed., (Certifies Grades K-12) —Minor		Support Staff Council	437
Required	93	Systems Management Minor, 24 hours.	262
B.S.—Minor Required or Collateral Field		Talent Development Center	57
.....	92	Tax Credits	27
Spanish Minor, 24 hours	94	Taxation of Financial Assistance	34
Special Admissions.....	24	Teacher Certification	51
Special Education Concentration, 22 hours			
.....	279		
Special Education Major			

Teacher Education General Information	268	University Personnel.....	437
Test Score Percentile Chart	14	University Police Department	59
Textbook Services.....	56	University Requirements.....	64
The Board of Regents	435	University Seminar.....	37
The College of Arts and Sciences	80	University Wellness Services	55
The Honors Program / H	205	Use of Calculators	39
The Missouri Academy of Science, Mathematics and Computing / 81.....	304	Valk Center	435
The Northwest Core.....	65	Varsity Athletics	368
The Station	434	Veterans' Affairs	34
THEA - Theatre	425	Visiting Students	25
Theatre / 43	115	Vocal Music Education Comprehensive Major, 58 hours	
Theatre Comprehensive Major, 60 hours B.S.—No Minor Required	117	B.M.E.—No Minor Required (Certifies Grades K-12).....	112
Theatre Core Requirements	117	Vocal Music Education Extended Certification, Grades K-12, 12 hours B.M.E. Degree	114
Theatre Major, 30 hours B.A.—Minor Required	117	Vocational Rehabilitation	35
Theatre Minor, 24 hours	118	VOED - Career Education	428
Theory.....	399	Waiver of the English Proficiency Requirement	23
Thomas W. Gaunt House	431	Wellness Services.....	435
Thompson-Ringold Building	435	Wildlife Ecology and Conservation Comprehensive Major, 67-68 hours	
To Apply:.....	15	B.A.—No Minor Required.....	180
To Transfer:	22	B.S.—No Minor Required	178
Transcript of Grades	47	Withdrawal from the University.....	33
Transcript/Diploma/Enrollment Hold	48	Withdrawal from the University:.....	47
Transfer Admissions.....	19	Writing.....	355
Transfer of Credit from Two-Year Institutions	21	Writing Competency.....	49
Transfer of Credits	20	Writing Major, 30 hours B.A.—Minor Required	83
Transfer Requirements	19	Writing Major, 36 hours B.S.—Minor Required.....	83
Transfer Students Holding Associate of Arts or Associate of Science Degrees ..	21	Writing Major, Creative Writing and Publishing Emphasis, 33 hours B.A.—Minor Required	85
Tuition and Fees	28	Writing Major, Professional Writing Emphasis, 36 hours B.S.—Minor Required	84
Undeclared (Deciding) Major and/or Degree Objective	36	Writing Minor in English, 24 hours	89
Undergraduate Degrees	71		
University Committees	437		
University Housing Policy	52		
University Installment Payment Plan	28		
University Mathematics Laboratory	58		

